



# Fluid Control Solenoid Valves for Process Market

- aerospace
- climate control
- electromechanical
- filtration
- fluid & gas handling**
- hydraulics
- pneumatics
- process control
- sealing & shielding



ENGINEERING YOUR SUCCESS.



This catalogue FCDE 1120 is a selection of Parker FCDE products dedicated to Process applications. General catalogue FCDE 0110 is also available and contains a comprehensive list of Parker Fluid Control Products for other markets and general purpose applications.



**WARNING - USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

## Who we are?

*The Fluid Control Division in Europe (FCDE) is a division of Parker Hannifin, the global leader in motion and control technologies.*

*FCDE core competences are the development and manufacturing of an extremely diverse range of fluid control products, including solenoid valves and pressure regulators.*

## Where we are?

*Our European headquarters are located in Geneva, this is also where our R&D, Marketing, Application Support and Product Management functions are located.*

*FCDE Products are mainly manufactured at locations in Carouge (Geneva - Switzerland) and Gessate (Milan - Italy).*

*The Parker Sales Companies and comprehensive distribution network support you, wherever you are.*

## History

Parker FCDE has been a leading player in the manufacturing and development of solenoid valve technologies for over 60 years, with continuous research and development bringing innovative solutions to the marketplace, for example leading the way in the utilisation of synthetic ruby for critical water applications or the unsurpassed reliability and precision of our pressure regulators. The expertise accumulated and developed through the years is evident in the superior quality of FCDE solutions.

## Markets

Our products and solutions are typically designed for markets including Industrial Equipment, Industrial Automation, Mobile, Transportation, Life Sciences, Beverage dispensing and for Fluid and Process Control.

## Benefits

The modular concept of our products, having separate solenoid valves and electrical parts, provides the customer with increased flexibility by allowing numerous combinations. This additional flexibility can enable distributors to greatly reduce valve inventory levels, whilst retaining the same number of capabilities. Parker also has unrivalled experience in developing customised product solutions complying with the highest technical, environmental, energy and service life requirements.



PARKER FCDE - GENEVA - SWITZERLAND



PARKER FCDE - MILAN - ITALY

# FLUID CONTROL SOLENOID VALVES FOR PROCESS MARKET

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# MARKETS AND APPLICATIONS

## PROCESS MARKET

The process market covers many different type of industries. Usually these industries prepare or modify raw materials, using different kind of processes.

The raw materials are very diverse, they can be gases, liquids, powders, fibers, etc...

These material flow through process valves, that are controlled by pneumatic actuators, themselves operated by solenoid valves.



## PROCESS INDUSTRIES

The industries covered are also very diverse: chemical and petrochemical, power generation, oil & gas, water & sewage, pulp & paper, food industry & pharmaceutical industry.

Plants can be indoor or outdoor, onshore or off shore, operating in cold or hot environments, with hazardous or safe areas.



## PILOT VALVES

All these industries require valves that are efficient and reliable to control their process.

That is why we have designed a range of dedicated pilot valves that fulfill to all the requirements of the market.

This catalogue brings together the product we can offer in order to help the customer to define and choose the right product for their application.



# MARKETS AND APPLICATIONS

## APPLICATIONS

Main application is pneumatic actuator control. Depending on the actuator type, the pilot valve required can be directly mounted on the actuator, following the NAMUR standard (VDI/VDE 3845), or externally connected to the actuator (piped valves).

The majority of pilot valves have a spring return, or fail safe, function.

For some specific applications, bistable valves are also available.



Our products can also be used in other applications such as; HVAC equipment, wellhead control panels, sampling and analyzing, fire dampers control, etc...





## BENEFITS

- Every valve body conforms to Mechanical ATEX EN 13 463-1 & 5
- Wide range of combinations valve + coil are SIL3 capable according IEC 61508 and can be used as safety valves
- ATEX electrical parts comply to European directive ATEX 94/9/C
- Majority of ATEX electrical parts comply to ATEX international scheme IECEx
- Electrical parts are modular: a coil can be disassembled from a valve very quickly, which is an advantage when the products have been installed, making service and maintenance simple



- A single valve is able to receive different types of coils, including ATEX, which helps reduction of inventory for end users or distributors
- A coil or a valve can be ordered separately and assembled later by end users or distributors
- Material traceability certificate is available for Offshore applications



# A MODULAR CONCEPT FOR EVERY APPLICATION

CHOOSE BETWEEN:

## Actuation Modes

- Direct Operated
- Pilot Operated
- Manual Reset
- Externally Operated

## Material Types

- Brass
- 303 Stainless St.
- 316L Stainless St.
- Anodized Aluminium
- POM

## Mounting Solutions

- Pipe
- Sub-base
- ISO
- Banjo
- NAMUR

## Control Functions

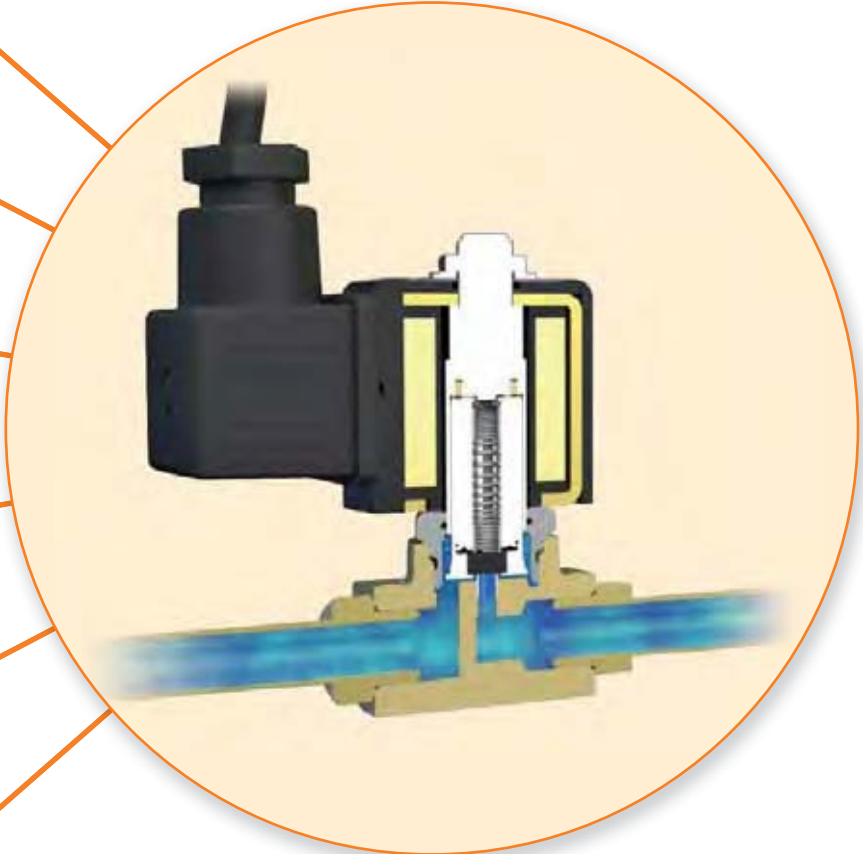
- Normally Closed
- Normally Open
- Universal
- Control by Electric Impulse
- Dual Solenoids

## Internal Design

- Piston
- Poppet
- Diaphragm
- Spool

## Seals

- FKM
- NBR
- EPDM
- Ruby
- PUR
- PCTFE...




# ATEX CERTIFICATION



## ELECTRICAL PART ATEX CERTIFICATION

A selection of FCDE electrical parts conform to the terms of the 94/9/EC directive and are made for potentially explosive environments - zone 0/20, 1/21 and 2/22.


Within the coil section, the presence of the ATEX logo  shows that the coil is ATEX approved.



## MECHANICAL PART ATEX CERTIFICATION

A selection of FCDE mechanical parts conform to the terms of the 94/9/CE directive specific to non electrical equipment for use within potentially explosive environments - zones 0/20, 1/21 and 2/22.

NAMUR & piped valve ranges now include a marking which indicates mechanical ATEX approval.

Within the valve section, the presence of the ATEX logo  shows that the valve is ATEX approved.



## SOLENOID VALVE CERTIFICATION

When both the electrical and mechanical part are ATEX approved, the solenoid valve can be used in explosive atmospheres.

The solenoid valve will be delivered assembled and tested.



# PARKER FCDE IS MEETING WORLD CLASS STANDARDS

## QUALITY STANDARDS

- ISO 9001
- ISO 14001



## CERTIFICATIONS AND APPROVALS

Our products have been approved and are compliant with the relevant market requirements including:

- CE
- ATEX
- RoHS
- UL
- Reach
- IECEx
- CSA
- Gost
- SVGW
- DIN
- AGA
- TUV
- Kosha
- IMQ
- NSF
- VDE







## DEFINITIONS

### EXPLOSIVE ENVIRONMENTS

Mixture with air, under atmospheric conditions, of flammable substances in the form of gases, vapours, mists or dusts in which, after combustion has occurred, combustion spreads to the entire unburned mixture.

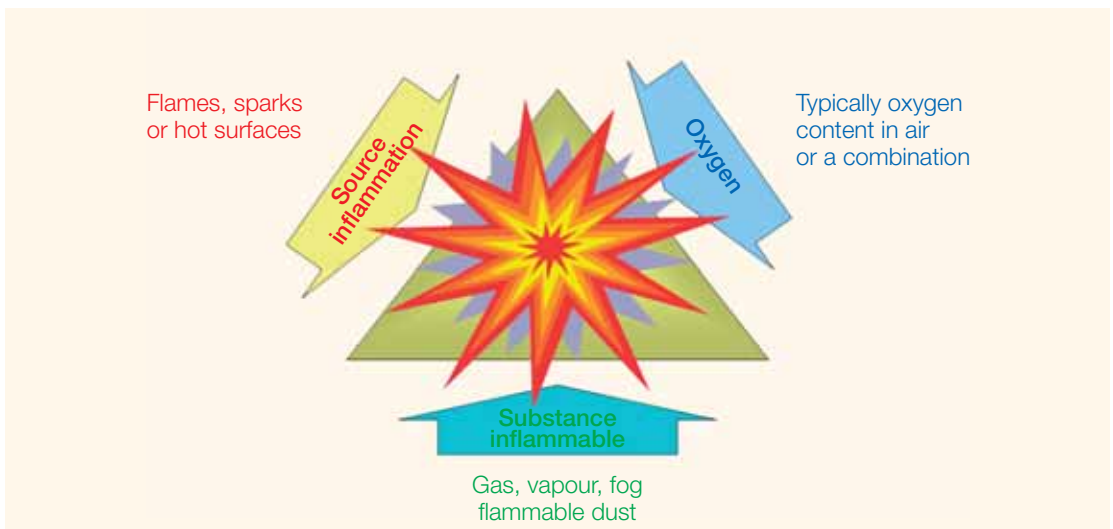
### HAZARDOUS AREAS

A hazardous area is an area in which an explosive gas environment is present, or may be expected to be present, in quantities such as to require special precautions for construction, installation and use of electrical apparatus.

### INGREDIENTS FOR AN EXPLOSION

- When combustible materials are mixed with air, an explosive mixture is produced. Danger of explosion therefore exists wherever these hazardous materials are handled: such a condition is to be found on the biggest chemical plant as well as at the smallest filling station.
- Nowadays with the use of electronic and electrical instrumentation in process control, the risk of combustion by electrical energy has increased sharply.
- To protect personnel and expensive equipment special precautions should be taken to prevent combustion of those dangerous substances. Conditions likely to ignite explosive mixtures are as follows:

**Three conditions are enough to create an explosion.**



# EXPLOSIVE ENVIRONMENTS



## DEFINITIONS

### ZONES

The hazardous areas are classified in zones based on the frequency of the occurrence and the duration of an explosive gas environment as follows:

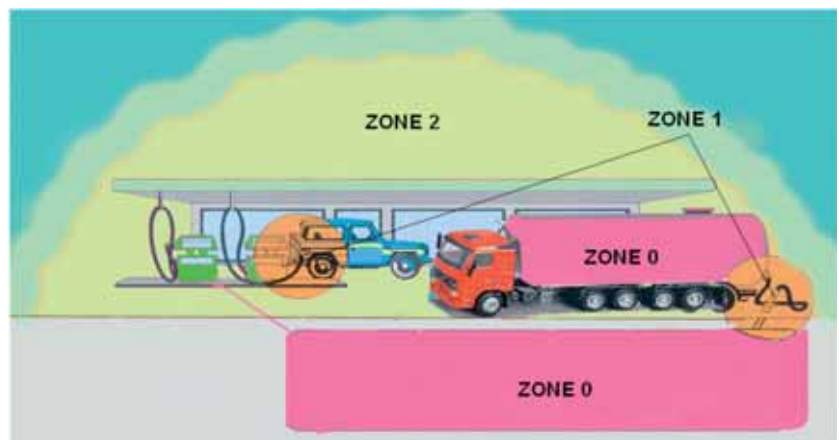
Zone 0 (20)	Zone 1 (21)	Zone 2 (22)
An area in which an explosive <b>gas</b> (dust) atmosphere is present CONTINUOUSLY or is present for LONG PERIODS (~1000 h/y).	An area in which an explosive <b>gas</b> (dust) atmosphere is present LIKELY TO OCCUR in normal operation (~10 to 999 h/y).	An area in which an explosive <b>gas</b> (dust) atmosphere is not LIKELY TO OCCUR and if it does occur it will exist for short period only (~1 to 10 h/y).
Mode of protection: <b>ia - ma - px - ...</b>	Mode of protection: <b>db - eb - ib - mb - px - ...</b>	Mode of protection: <b>n - mc - ic - pz - ...</b>

### HAZARDOUS LOCATION CLASSIFICATION

Explosive Environment	Continuous Presence	Intermittent Presence (normal operation conditions)	Occasional Presence (abnormal operation)
<b>IEC</b>	<b>Zone 0</b> (gas) <b>Zone 20</b> (dust)	<b>Zone 1</b> (gas) <b>Zone 21</b> (dust)	<b>Zone 2</b> (gas) <b>Zone 22</b> (dust)
<b>Europe</b>	<b>Zone 0</b> (gas) <b>Zone 20</b> (dust)	<b>Zone 1</b> (gas) <b>Zone 21</b> (dust)	<b>Zone 2</b> (gas) <b>Zone 22</b> (dust)
<b>Canada (CEC)<sup>1</sup></b> <b>USA (NEC)<sup>2</sup></b>	<b>Cl. I Div. 1</b> (gas) <b>Cl. II Div. 1</b> (dust) <b>Cl. III Div. 1</b> (fibres)	<b>Cl. I Div. 1</b> (gas) <b>Cl. II Div. 1</b> (dust) <b>Cl. III Div. 1</b> (fibres)	<b>Cl. I Div. 2</b> (gas) <b>Cl. II Div. 2</b> (dust) <b>Cl. III Div. 2</b> (fibres)

<sup>1</sup> (CEC): Code Canadien d'Electricité / <sup>2</sup> (NEC): National Electrical Code

Example:







# DEFINITIONS

## HAZARDOUS LOCATION CLASSIFICATION

Category	Fault protection	Atmosphere	Zone	Example of protections
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### EC Type examination by Notified Body → annex III

<b>1</b> Very high level	2 types of protection or 2 independant faults	<b>G</b> (Gas)	<b>0</b>	"ia", "ma", "px" or "ia-ma", "db/eb"
		<b>D</b> (Dust)	<b>20</b>	

### EC Type examination by Notified Body → annex III

<b>2</b> High level	One type of protection Habitual frequent malfunction	<b>G</b> (Gas)	<b>1</b>	One type of protection lb, db, mb, eb, py, o,...
		<b>D</b> (Dust)	<b>21</b>	

### Internal production inspection → EC declaration of conformity

<b>3</b> Normal	Required level of protection	<b>G</b> (Gas)	<b>2</b>	n, ic, pz, ... A, C, L, P, R
		<b>D</b> (Dust)	<b>22</b>	

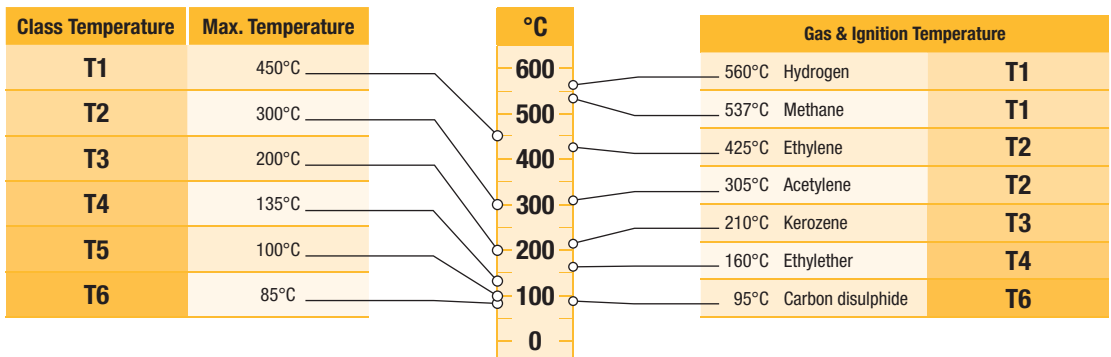
### Hazardous Location Classification

Group	Gas Reference
<b>I</b>	Methane
<b>IIA</b>	Propane
<b>IIB</b>	Ethylene
<b>IIC</b>	Hydrogen / Acetylene

### Hazardous Location Classification

Group	Dust Reference
<b>-</b>	-
<b>IIA</b>	Fibres
<b>IIB</b>	Non-conductive dust
<b>IIC</b>	Conductive dust

### Surface Temperature Classes



# EXPLOSIVE ENVIRONMENTS PROTECTION MODES USED BY PARKER FCDE



## PROTECTION MODES

Concept	Code		Zones	
	Gas	Dust	Gas	Dust
Flameproof enclosure	<b>db</b>	<b>tb</b>	1/2	21/22
Encapsulation	ma / <b>mb</b> / <b>mc</b>	tb / tc	0/1/2	20/21/22
Increased Safety	<b>eb</b>	-	1/2	-
Intrinsic Safety	<b>ia</b> / ib / ic	ta / tb / tc	0/1/2	20/21/22
Pressurized apparatus	<b>px</b> / py / pz	pD	1/2	21/22
Concept Cat. 3 apparatus	<b>nA</b>	-	2	-
	nL	-	2	-
	nR	-	2	-
	nC	-	2	-

In red, protection modes used by Parker FCDE.

# STANDARDS AND PROTECTION MODES



## APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES EQUIPMENT GROUP II

EPL	Standards EN / IEC	Protection	Title
	60079-0	-	General requirements
<b>Ga</b>	60079-11	ia	Intrinsic safety
	60079-18	ma	Encapsulation
	60079-26		Equipment with equipment protection level (EPL) Ga (Zone 0)
	60079-28	op is	Protection of equipment and transmission systems using optical radiation
<b>Gb</b>	60079-1	db	Flameproof enclosures
	60079-2	p, pxb, py	Pressurized enclosures
	60079-5	q	Powder filling
	60079-6	o	Oil immersion
	60079-7	eb	Increased safety
	60079-11	ib	Intrinsic safety
	60079-18	mb	Encapsulation
	60079-25		Intrinsically safe systems
	60079-27		Fieldbus intrinsically safe concept (FISCO)
60079-28	op is op pr op sh	Protection of equipment and transmission systems using optical radiation	
<b>Gc</b>	60079-11	ic	Intrinsic safety
	60079-18	mc	Encapsulation
	60079-15	nA	Non sparking
	60079-15	nR	Restricted breathing enclosure
	60079-15	nL	Limited energy (only old edition)
	60079-15	nC	Equipment producing operational sparks
	60079-2	pz	Pressurized enclosures
	60079-27		Concept de réseau de terrain de sécurité intrinsèque (FISCO)
60079-28	op is op pr op sh	Protection of equipment and transmission systems using optical radiation	

**EPL = Equipement Protection Level**

In red, protection modes used by parker FCDE.

# EXPLOSIVE ENVIRONMENTS



## STANDARDS AND PROTECTION MODES

### ELECTRICAL EQUIPMENT FOR USE IN AREAS WITH COMBUSTIBLE DUST - EQUIPMENT GROUP III

EPL	Standards EN / IEC	Protection	Title
	60079-0	-	General requirements
Da	60079-31	ta	Protection by enclosure
	60079-11	ia	Protection by intrinsic safety (iaD IEC/EN 61241-11)
	61241-18	ma	Protection by encapsulation
Db	60079-31	tb	Protection by enclosure
	60079-11	ib	Protection by intrinsic safety (ibD IEC/EN 61241-11)
	60079-18	mb	Protection by encapsulation
	IEC 61241-4	pD	Type of protection "pD"
Dc	60079-31	tc	Protection by enclosure
	60079-11	ic	Protection by intrinsic safety
	60079-18	mc	Protection by encapsulation
	IEC 61241-4	pD	Type of protection "pD"

EPL = Equipement Protection Level

In red, protection modes used by parker FCDE.

### NON ELECTRICAL EQUIPMENT FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERE

Standards	Protection	Title
EN 13463-1	-	Basic method and requirements
EN 13463-2	fr	Protection by flow restricting enclosure
EN 13463-3	db	Protection by flameproof enclosure
EN 13463-5	c	Protection by constructional safety
EN 13463-6	b	Protection by control of ignition source
EN 13463-7	p	Protection by pressurized enclosure
EN 13463-8	k	Protection by liquid immersion

### ZONES AND EQUIPEMENT PROTECTION LEVEL (EPL)

Zone	Gas	EPL	Zone	Dust	EPL
0		Ga	20		Da
1		Ga and Gb	21		Da and Db
2		Ga, Gb and Gc	22		Da, Db and Dc

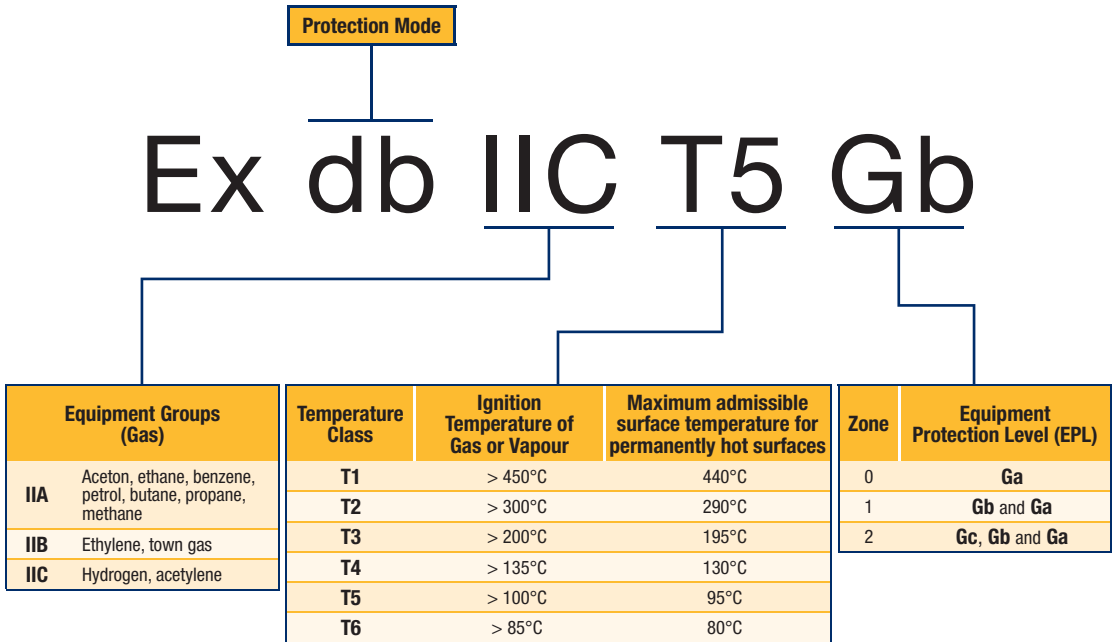
### CATEGORIES AND EQUIPEMENT PROTECTION LEVEL (EPL)

Categories	Gas	Dust	Safety
1	Ga	Da	Very high
2	Gb	Db	High
3	Gc	Dc	Normal

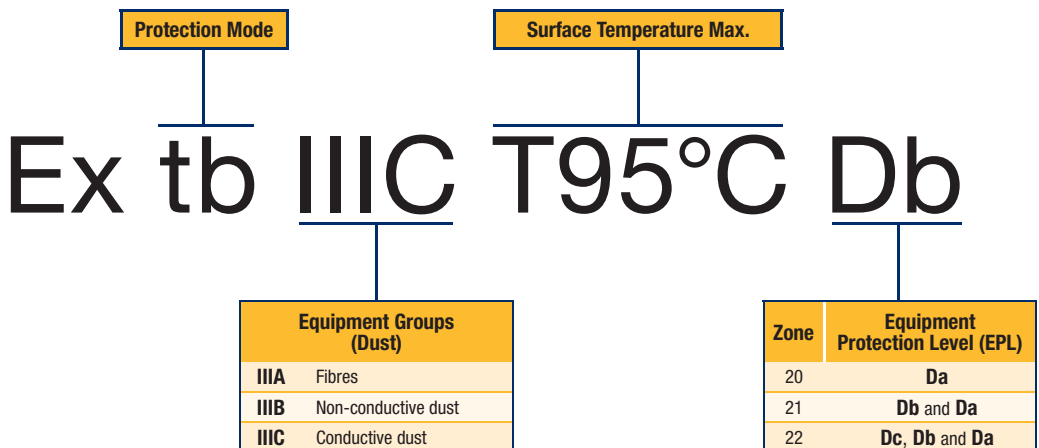


## EXAMPLES OF MARKING

### ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES EQUIPMENT GROUP II



### ELECTRICAL EQUIPMENT FOR USE IN AREAS WITH COMBUSTIBLE DUST - EQUIPMENT GROUP III



# EXPLOSIVE ENVIRONMENTS

## WHAT ABOUT THE DIRECTIVE ?

(94/9/EC - 1994-03-23)

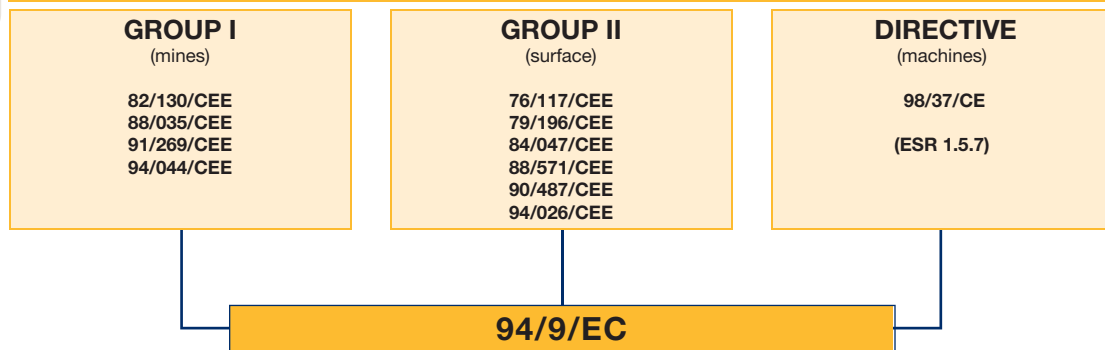


### WHAT ABOUT THE DIRECTIVE ? (94/9/EC - 1994-03-23)

In keeping with the "**new approach**", the new directive lays down the framework for a total harmonization of regulations covering this field.

It makes no direct references to standards but sets out the essential health and safety requirements to be met and introduces the **CE** marking.

#### ATEX 100 A DIRECTIVE - NEW APPROACH



## THE FRAMEWORK OF THE DIRECTIVE

The main principles of the new directive can be summarized as follows:

- It applies to **electric** and **non-electric** equipment.
- It defines **essential health and safety requirements**.
- It takes into consideration **all potential hazards** equipment may cause, in particular at design and production level.
- **The one directive** applies to both **mines** susceptible to fire damp and **surface industries**.
- It stresses the importance of equipment being **used in accordance with its intended purpose**.
- It recognises The European Standards Committee **CEN** and the European Committee for Electrotechnical Standardisation **CENELEC** as competent bodies to fix the required harmonised standards.
- It provides for the **contribution of labour and management**.
- It defines **procedures for assessing conformity** to essential requirements, on the basis of modules which qualify equipment to carry the **CE** mark of conformity.

## APPLICATIONS

The directive applies to the industrial field and concerns the following equipment:

- **Equipment** (machines, apparatus, etc.)
- **Protective systems** (discharge devices, explosion suppression devices, etc.)
- **Components** (parts with no autonomous function, terminals, etc.)
- **Safety devices, controlling devices and regulating devices** intended for use outside potentially explosive environments but required for safety with respect to explosions (relays, barriers, pressure switches, thermostats, etc.)

# WHAT ABOUT THE DIRECTIVE ?

(94/9/EC - 1994-03-23)



## EXCLUDED FROM THE SCOPE OF THE NEW DIRECTIVE

The following equipment falls outside the scope of the new directive:

- Medical devices intended for use in a medical environment.
- Equipment and protective systems relating only to the risk of explosion of unstable chemical substances (explosives, etc.)
- Equipment intended for use in domestic and non-commercial environments.
- Personal protective equipment covered by directive 89/686/EC.
- Seagoing vessels and mobile offshore units.
- Means of transport, except for vehicles intended for use in a potentially explosive environment.

## APPLICATION DATES

### ATEX 100A DIRECTIVE - NEW APPROACH

94/9/EC

#### Application dates

• Transposition to national law	1/9/1995
• Application (optional)	1/3/1996
• Application (total)	1/7/2003

## POTENTIAL IGNITION SOURCES AND OTHER HAZARDS TO BE CONTROLLED

The following all represent potential hazards:

- Various sources of ignition, such as sparks, flames, electric arcs, high surface temperature, acoustic energy, optical radiation or electromagnetic waves.
- Static electricity.
- Pressure compensation operations.
- Disturbance from external sources, such as changing environmental conditions, extraneous voltage, humidity, vibration or contamination.

Provision is also made for specific requirements governing devices used to provide additional equipment safety.

These requirements necessitate detailed analysis to assess the operational reliability of such devices and their interaction with other components connected with the equipment.

# SIL CERTIFICATION

## FUNCTIONAL SAFETY

During 70<sup>s</sup> and 80<sup>s</sup>, major incidents occurred in several chemical and pharmaceutical plants. This is why standard organizations in the US and in Europe established new safety standards, like IEC 61508 (formerly DIN 19251), IEC 61511, and ISA 84.

Risk is ranked as being negligible, tolerable, or unacceptable. The starting point for any modern safety system is to reduce risk in any process to an acceptable or tolerable level. In this context, functional safety can be defined as “free of unacceptable risk”.

**The formula for risk is: RISK = HAZARD FREQUENCY x HAZARD CONSEQUENCE**

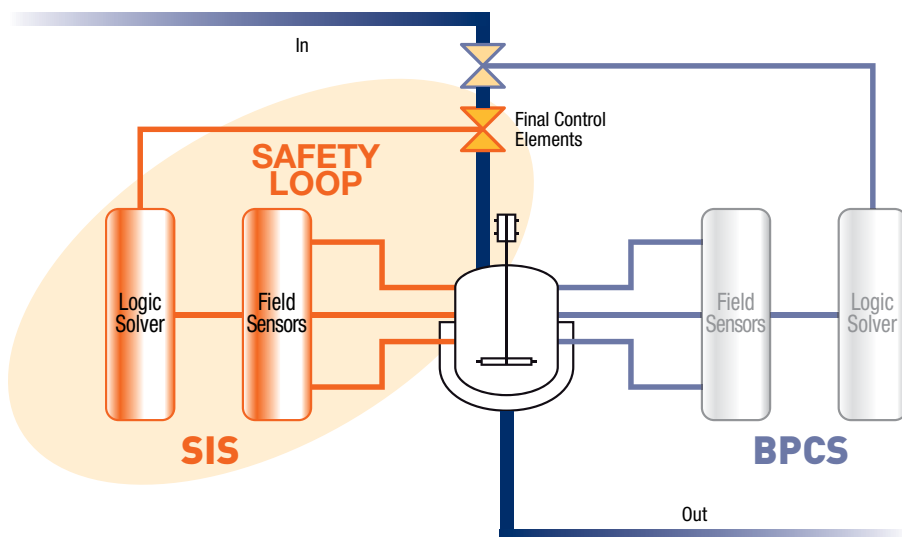
## ESD: EMERGENCY SHUTDOWN DEVICES

Risk can be reduced initially by a safe process design, by the Basic Process Control System (BPCS), and finally by a safety shutdown system.

Employees and operating plant must be protected from risks. On their own unique safety precautions may not provide total security. For this reason, safety exists in multiple protective levels: a series of mechanical devices, process controls, shutdown systems and external response measures which prevent or mitigate a hazardous event. If one safety protection level should fail, the other levels are designed to take control.

The level of protective layers required is evaluated using an analysis of a process's hazards and risks known as a Process Hazards Analysis (PHA). If a study concludes that existing protection of the plant is inadequate, an Emergency Shut-down system (ESD), also call Safety Instrumented System (SIS) will be required. The ESD operates independently from Basic Process Control System, and is only used in emergency situations. The task of the ESD is to bring the operating plant back to a safe state working condition when an unsafe operating condition has occurred.

The ESD is designed with a number of safety functions, including sensors, logic solvers and final elements. The final element level is the area where Parker FCDE can provide his expertise and offer solenoid valves, as part of the safety system.





## SIF and SIL

A Safety Instrumented Function (SIF) is a safety feature with a specified Safety Integrity Level (SIL) which is implemented by a SIS to achieve or maintain a safe state. SIF's sensor, logic solver, and final elements work together to detect a hazardous condition and bring the process to a safe condition.

The Process Hazards Analysis (PHA) will determine the required SIL level for each SIF.

The effectiveness of a SIS is described in terms of "the probability of the system to fail to perform its required function when requested". This is the Probability of Failure on Demand (PFD).

SIL is linked to the PFD, and is a statistical representation of the SIS integrity when a process demand occurs.

Both ISA84 and IEC 61508 use SIL to measure the reliability of a SIS.

The higher the SIL, the more reliable or effective is the system.

Both ISA and IEC use 3 levels of SIL, SILs 1, 2 & 3. IEC also includes an additional level, SIL 4.



Example of SIL Declaration of Conformity



Example of SIL Certificate

SIL Safe Integrity Level	Availability	PFDavg	Risk Reduction	Qualitative Consequence
4	>99.99%	$10^{-5}$ to $<10^{-4}$	100.000 to 10.000	Potential for fatalities in the community
3	99.9% to 99.99%	$10^{-4}$ to $<10^{-3}$	10.000 to 1.000	Potential for multiple on-site fatalities
2	99% to 99.9%	$10^{-3}$ to $<10^{-2}$	1.000 to 100	Potential for major on-site injuries or a fatality
1	90% to 99%	$10^{-2}$ to $<10^{-1}$	100 to 10	Potential for minor on-site injuries

A PFD of  $10^{-4}$  (SIL3) means 0.0001 possible failures / year or 1 failure in 10.000 years is possible

## DETERMINING SIL LEVEL FOR INSTRUMENTS

SIL levels for field instruments are evaluated using two methods:

**FMEDA** (Failures Modes, Effects and Diagnostic Analysis) usually certified by a third party. A systematic analysis is needed to determine failure rates, failure modes and the diagnostic capability as defined by IEC61508/651511.

**Proven In Use** is typically used for mature instruments used in a well-known process. This approach requires sufficient product operational hours, revision history, fault reporting systems and field failure data to determine if there is evidence of systematic design faults in a product. IEC 61508 provides levels of operational history required for each SIL.

**Depending on the product, Parker is able to provide necessary documentation, including third part certificates, or manufacturer declaration of conformity.**

Please consult our technical support for more information: [tech\\_support\\_fcde@parker.com](mailto:tech_support_fcde@parker.com)

# HOW TO USE THIS CATALOGUE

This catalogue is a comprehensive list of Parker FCDE products. It will help to identify appropriate valves and coils and enable the user to generate ordering numbers. The catalogue is intended for use by Parker Sales personnel with the aim to select the most suitable solenoid valves for customers.

This catalogue is split by product family. You will find a summary page at the beginning of each valve section. For ease of use, each valve section is divided by product series.

On the first page of each Product series section, you will find an overview of the products within and their technical characteristics, to guide you to the relevant page (example below):

## SECTION SUMMARY PAGE

The diagram shows a section summary page for '2 WAY VALVES DIRECT OPERATED'. The page includes a product image, a title, a subtitle, a '2/2' icon, and a table of technical specifications. Callouts point to various elements:

- Product family:** 2 WAY VALVES DIRECT OPERATED
- Product series:** V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING
- Number of ways / positions:** 2/2
- Applicable Fluids:** Indicated by icons for oil, water, and air.
- Actuation, body and function:** A box containing the table below.
- Body:** 303 Stainless SS./Pipe Mounting
- Mounting:** Pipe Mounting
- Function:** Normally Closed
- Related page:** 39
- Technical features:** Parker Hannifin Corporation Fluid Control Division Europe

Actuation	Body	Function	Port Size	Drift (µm)	Flow Factor Kv(l/min)	MDP (bar)	Max Fluid Temp. (°C)	Page Refer Series
Direct Operated	303 Stainless SS./Pipe Mounting	Normally Closed	1/4"	1.5 to 3	2.5	20	100	40
	316L Stainless SS./Pipe Mounting	Normally Closed	1/4"	0.8 to 1	0.6	200		42

For further technical information regarding Actuation, Body and Function, please refer to the technical information section at the end of the catalogue.

**Ordering Information**      **ISO Symbol**      **Applicable Approvals** within this page      **Quick selection table with Min/Max values for all valves on the page**

**SECTION PRODUCT PAGE**

2/2


**2 WAY VALVES DIRECT OPERATED**

• SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

**303 STAINLESS ST.**

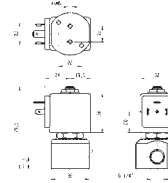
**PIPE MOUNTING**

**NORMALLY CLOSED**




Port size	Orifice ID	Flow factor	Operating Pressure Differential	Fluid Temp.	Seal Mat.	Parker LUCIFER®			ATEX Zone	Protection Mode	Power		Coil Group	Temp. Nst.						
						Value Ref.	Mounting Ref.	Coil Ref.			AC W	DC W								
1/2"	1.5	1.5	0.09	80	0	20	-10	65	NM	121V5406	-	496900	1-21	Ex db mb IIC T4	8	8	2.0	024		
	1.5	1.5	0.09	80	0	20	-10	60	NM	121V5406	2965	496870	2-22	Ex hc AC IIC T3/T4	8	9	2.0	116		
	1.5	1.5	0.09	80	0	20	-10	100	NM	121V5406	2965	481865	-	-	8	9	2.0	116		
	1.5	1.5	0.09	80	0	20	-10	100	PUR	121V5497	-	496910	0-20	Ex ia IIC T4 to T6	-	0.3 to	3.0/6.0/8.0	024		
	1.5	1.5	0.09	80	0	10	-20	65	PUR	121V5497	-	496900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	024		
	1.5	1.5	0.09	80	0	-	8	-20	50	PUR	121V5497	2965	496125	2-22	Ex hc AC IIC T3/T6	-	1.6	3.0/6.0/8.0	116	
	1.5	1.5	0.09	80	0	-	8	-20	75	PUR	121V5497	2965	482740	-	-	1.6	3.0/6.0/8.0	116		
	1/4"	3	4.5	0.27	315	0	10	7	-10	65	NM	121V5306	-	496900	1-21	Ex db mb IIC T4	8	8	2.0	024
		3	4.5	0.27	315	0	10	7	-10	60	NM	121V5306	2965	496870	2-22	Ex hc AC IIC T3/T4	8	9	2.0	116
		3	4.5	0.27	315	0	10	7	-10	100	NM	121V5306	2965	481865	-	-	8	9	2.0	116
		3	3.5	0.21	220	0	-	4.5	-20	65	PUR	121V5397	-	496910	0-20	Ex ia IIC T4 to T6	-	0.3 to	3.0/6.0/8.0	024
		3	3.5	0.21	220	0	4.5	-	-20	65	PUR	121V5397	-	496900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	024
3		3.5	0.21	220	0	-	2	-20	50	PUR	121V5397	2965	496125	2-22	Ex hc AC IIC T3/T6	-	1.6	3.0/6.0/8.0	116	


**Notes:**  
1. Valve compatible with water only up to 40°C



Drawing B116




Drawing B034



40

Parker Hannifin Corporation  
Fluid Control Division Europe  
Process Catalogue FCDE/1120/UK/V1.0



41

Parker Hannifin Corporation  
Fluid Control Division Europe  
Process Catalogue FCDE/1120/UK/V1.0

**Fluid Temperature** Min/Max permitted\*      **ATEX Protection Mode**      **ATEX Zone** where the valve can be mounted      **A choice of Coil Groups** compatible with the selected valve      **Dimensional 2D\*\* and 3D drawings**

\* Fluid temperature may be subject to modification, please always check the ATEX certificate of the valve.  
\*\* 2D drawing shown always corresponds to the standard coil.

# HOW TO SELECT A VALVE

Once you are in the selected family **1** and product series **2**.

The table is designed to help you navigate to the products matching your criteria.

First decide the actuation **3**, then move across the table selecting your body material **4**, function **5** and technical requirements **6**.

After you have found products fitting within your specification, please go to the corresponding page number in the final column **7**, here you will find a selection of products that match your criteria.

**1** SELECT PRODUCT FAMILY

**2** SELECT PRODUCT SERIES

**3** SELECT ACTUATION

**4** SELECT BODY

**5** SELECT FUNCTION

**6** SELECT TECHNICAL DATA

**7** SELECT CORRESPONDING PAGE

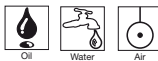
1

## 2 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING



2



# 2/2

Actuation	Body	Function	Part Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	303 Stainless St./Pipe Mounting	Normally Closed	1/4"	1.5 to 3	4.5	20	100	40
	316L Stainless St./Pipe Mounting	Normally Closed	1/4"	0.8 to 1	0.6	200	75	42

3

4

5

6

7



# HOW TO ORDER PARKER LUCIFER® SOLENOID VALVES

## A PARKER LUCIFER® SOLENOID VALVE IS COMPOSED OF 3 ELEMENTS:

The Valve ① + Housing ② + Coil ③.

1. Choose the valve reference
2. Choose the housing
3. Choose the coil

### ① Choose the Valve Reference.

**Valve Ref.**

121V5406

121V5406

121V5406

### ② Select the housing depending on the protection level (IP 44 to IP 67 found in the coil section)

**Housing Ref.**

-


2995

2995

**2/2** 2 WAY VALVES DIRECT OPERATED  
V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

303 STAINLESS ST. PIPE MOUNTING

**NORMALLY CLOSED**



Port size	Orifice Ø	Flow factor		Operating Pressure Differential		Fluid Temp. °C	Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.			
		Kv	Qn	Min	Max			Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W					
1/4"	1.5	1.5	0.09	80	0	20	20	-10	65	FKM	121V5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	1.5	1.5	0.09	80	0	20	20	-10	60	FKM	121V5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	1.5	1.5	0.09	80	0	20	20	-10	100	FKM	121V5406	2995	481865	-	-	8	9	2.0	8116
	1.5	1.5	0.09	80	-	10	-20	65	PUR	121V5497	-	495910	0-20	Ex Ia IIC T4 to T6	-	0.3 to 3	3.06.08.0	8024	
	1.5	1.5	0.09	80	0	10	10	-20	65	PUR	121V5497	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.06.08.0	8024
	1.5	1.5	0.09	80	0	-	8	-20	50	PUR	121V5497	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.06.08.0	8116
	1.5	1.5	0.09	80	0	-	8	-20	75	PUR	121V5497	2995	482740	-	-	-	1.6	3.06.08.0	8116
	3	4.5	0.27	315	0	10	7	-10	65	FKM	121V5306	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	3	4.5	0.27	315	0	10	7	-10	60	FKM	121V5306	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	3	4.5	0.27	315	0	10	7	-10	100	FKM	121V5306	2995	481865	-	-	8	9	2.0	8116
	3	3.5	0.21	220	0	-	4.5	-20	65	PUR	121V5397	-	495910	0-20	Ex Ia IIC T4 to T6	-	0.3 to 3	3.06.08.0	8024
	3	3.5	0.21	220	0	4.5	4	-20	65	PUR	121V5397	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.06.08.0	8024
3	3.5	0.21	220	0	-	2	-20	50	PUR	121V5397	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.06.08.0	8116	
3	3.5	0.21	220	0	-	2	-20	75	PUR	121V5397	2995	482740	-	-	-	1.6	3.06.08.0	8116	

**Notes:**  
1. Valve compatible with water only up to 40°C

**Parker** 40

Parker Hannifin Corporation  
Fluid Control Division Europe  
Process Catalogue FCDE/1120/UK/V1.0

For a given valve, several coil types are being suggested.

For a wider choice, the selected valve is also compatible with every other coil from the same coil group.

Parker Lucifer® coils are available in many different voltages.  
Choose the one you need by putting the voltage code at the end of your ordering number.

**3** Choose the coil and voltage code.

Coil Ref.

**495870**

Voltage Code

VAC/Hz

Code

24/50  
48/50  
110/50

A2  
A4  
A5

**Valve and coil order example:**

**1** - **2** - **3**

**121V5406 - 2995 - 495870A2**

Valve Reference

Housing

Coil and Voltage Code

**EXPLOSION PROOF ELECTRICAL PARTS**

**COIL GROUP**  
**2.0/2.1** ELECTRICAL PARTS "nc AC"


RoHS CE Ex

**ELECTRICAL PART 32 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

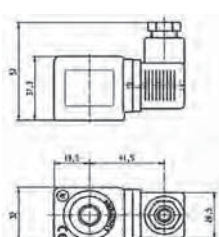
**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 to T4 is required. Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

**Benefits:**  
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc. Small size for ease of mounting in confined spaces.



Reference	495870	496110				
Certificate	LCIE 05 ATEX 6003 X					
Coil Group	2.0 / 2.1					
Level of protection	Gas II 3 G - Ex nc AC IIC T3 / T4 Dust II 3 D - Ex tc IIC - T195°C / T130°C	II 3 G - Ex nc AC IIC T3 / T4 II 3 D - Ex tc IIC - T195°C / T130°C				
Degree of protection	IP65 (with plug) according to IEC/EN 60529 Standards					
Insulation Class	F (155°C)					
Duty cycle	100%					
Ambient temperature	-40°C to +65°C / 50°C The application is limited also by the temperature range of the valve.					
Elect. Power	DC Pn (inrush)	9 W				
	P (cold)	12 W				
	Pn (holding)	8 W				
AC	Pn (holding)	8 W				
	Attraction cold	26 VA (9 W)				
Weight	150 g					
Voltages "Un" -10% to +10% of the Un	VAC/Hz	Code	VDC	Code	VAC/Hz	Code
	24/50	A2	24	C2	24/50-60	P0
	48/50	A4	48	C4	48/50-60	S4
	110/50	A5	110	C5	110/50-60	SS
	220/230/50	3U			220/50-60	S8

**To Order a Coil choose** Coil Ref + Voltage Code, example: 495870 for 24VDC = **495870C2**



**Parker** 308 Parker Hannifin Corporation Fluid Control Division Europe Process Catalogue FCDE/1120/UK/V1.0

**Important:**

Valve, Housing or Coil can be ordered separately for use as a replacement or spare part.

# HOW TO USE COIL GROUPS

## WITHIN A VALVE PAGE

One of Parker's strengths is the modularity, adaptability and flexibility of our products. When you select a solenoid valve, the coils displayed in the table have been chosen as they will fulfill the majority of application requirements.

Parker LUCIFER® Valves		
Valve Ref.	Housing Ref.	Coil Ref.
121V5406	-	495905
121V5406	2995	495870
121V5406	2995	481865

However, in some specific cases, you will need special features that will lead you to choose another coil.

Groups have been created in order to facilitate the selection of a compatible coil with the chosen valve.

Coil Group
2.0
2.0
2.0

### Example:

The valve 121V5406 is proposed with the coil 495870 but you can also choose any coil from the group 2.0.

## 2/2

### 2 WAY VALVES DIRECT OPERATED

V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

303 STAINLESS ST. PIPE MOUNTING

**NORMALLY CLOSED**

Port size	Drift Ø	Flow factor		Operating Pressure Differential		Fluid Temp. °C	Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
		Kv	Qn	Min	Max			Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
1/4"	1.5	1.5	0.8	0	20	20	-10 65 FKM	121V5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024	
	1.5	1.5	0.09	80	0	20	-10 60 FKM	121V5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116	
	1.5	1.5	0.09	80	0	20	-10 100 FKM	121V5406	2995	481865	-	-	8	9	2.0	8116	
	1.5	1.5	0.09	80	0	10	-20 65 PUR	121V5497	-	495910	0-20	Ex Ia IIC T4 to T6	0.3 to 3	3.06.0.8.0	8024		
	1.5	1.5	0.09	80	0	10	-20 65 PUR	121V5497	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.06.0.8.0	8024	
	1.5	1.5	0.09	80	0	8	-20 50 PUR	121V5497	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.06.0.8.0	8116	
	1.5	1.5	0.09	80	0	8	-20 75 PUR	121V5497	2995	482740	-	-	8	9	2.0	8116	
	3	4.5	0.27	315	0	10	7	-10 65 FKM	121V5306	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	3	4.5	0.27	315	0	10	7	-10 60 FKM	121V5306	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	3	4.5	0.27	315	0	10	7	-10 100 FKM	121V5306	2995	481865	-	-	8	9	2.0	8116
	3	3.5	0.21	220	0	4.5	-20 65 PUR	121V5397	-	495910	0-20	Ex Ia IIC T4 to T6	0.3 to 3	3.06.0.8.0	8024		
	3	3.5	0.21	220	0	4.5	-20 65 PUR	121V5397	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.06.0.8.0	8024	
3	3.5	0.21	220	0	2	-20 50 PUR	121V5397	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.06.0.8.0	8116		
3	3.5	0.21	220	0	2	-20 50 PUR	121V5397	2995	482740	-	-	8	9	2.0	8116		

**Notes:**  
1. Valve compatible with water only up to 100°C.

It is also possible to choose the coil first and then select the valve using coil groups.




The coil section is at the end of the catalogue and displays the specifications of each coil, along with the reference number, class of insulation, ambient temperature, electrical power and weight.

**2.0 / 2.1**

As indicated before, the valve 121V5406 is proposed with coil 495870 but is also compatible with the 2.0 coil group. This means the coil 481865 is also compatible with the chosen valve as it is within this group.

When referring to the coil section you will find the coil group for each coil. This allows you to discover which other coils are compatible with the valve you have chosen.

EXPLOSION PROOF ELECTRICAL PARTS



2.0/2.1


### ELECTRICAL PARTS "nc AC"

**ELECTRICAL PART 32 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

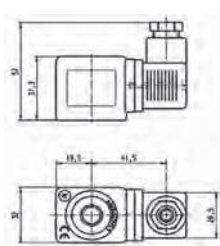
**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 to T4 is required. Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.


**Benefits:**  
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc. Small size for ease of mounting in confined spaces.



Reference	495870		496110			
Certificate	ATEX 05 ATEX 6003 X					
Coil Group	2.0 / 2.1					
Type of protection	Gas	II 3 G - Ex nc AC IIC T3 / T4		II 3 G - Ex nc AC IIC T3 / T4		
	Dust	II 3 D - Ex tc IIC - T195°C / T130°C		II 3 D - Ex tc IIC - T195°C / T130°C		
Degree of protection	IP65 (with plug) according to IEC/EN 60529 Standards					
Insulation Class	F (155°C)					
Duty cycle	100%					
Ambient temperature	-40°C to +65°C / 50°C The application is limited also by the temperature range of the valve.					
Elect. Power	DC	Pn (hot)	9 W	-		
		P (cold) 20°C	12 W	-		
AC	Pn (holding)	8 W	9 W			
	Attraction cold	26 VA (9 W)	32 VA (10 W)			
Weight	150 g					
Voltages "Un"	VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un	24/50	A2	24	C2	24/50-60	P0
	48/50	A4	48	C4	48/50-60	S4
	110/50	A5	110	C5	110/50-60	S5
	220-230/50	3D			220/50-60	S6

**To Order a Coil choose** Coil Ref + Voltage Code, example: 495870 for 24VDC = **495870C2**




308

Parker Hannifin Corporation  
 Fluid Control Division Europe  
 Process Catalogue FCDE/1120/UK/V1.0

33

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 Fluid Control Division Europe  
 Process Catalogue FCDE/1120/UK/V1.0





## 2 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING



Oil



Water



Air

# 2/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Brass/Pipe Mounting	Normally Closed	1/4"	1 to 3	4.5	60	100	36

# 2/2

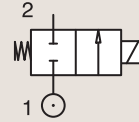
## 2 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

#### BRASS

#### PIPE MOUNTING

#### NORMALLY CLOSED



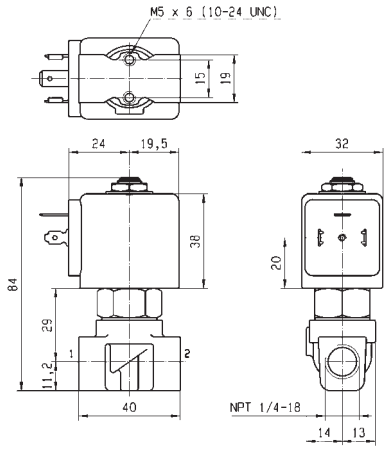
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4" NPT	1	0.6	0.04	36	0	-	10	-10	55	FKM	U121K0490	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7059
	1	0.6	0.04	36	0	-	10	-10	55	FKM	U121K0490	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7059
	1	0.6	0.04	36	0	10	10	-10	55	FKM	U121K0490	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7059
	1.5	0.6	0.04	36	0	-	10	-10	55	FKM	U121K0690	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7059
	1.5	0.6	0.04	36	0	-	10	-10	55	FKM	U121K0690	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7059
	1.5	0.6	0.04	36	0	10	10	-10	55	FKM	U121K0690	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7059
1/4"	1.5	1.5	0.09	80	0	60	25	-30	65	PCTFE	E121K04	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8274
	1.5	1.5	0.09	80	0	60	25	-30	60	PCTFE	E121K04	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
	1.5	1.5	0.09	80	0	60	25	-30	75	PCTFE	E121K04	2995	481865	-	-	8	9	2.0	3510
	1.5	1.5	0.09	80	0	20	20	-10	65	FKM	E121K0402	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/3.0	8274
	1.5	1.5	0.09	80	0	20	20	-10	60	FKM	E121K0402	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/3.0	3510
	1.5	1.5	0.09	80	0	20	20	-10	100	FKM	E121K0402	2995	481865	-	-	8	9	2.0/3.0	3510
	1.5	1.5	0.09	80	0	-	10	-20	65	PUR	121K0497 <sub>1</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8274
	1.5	1.5	0.09	80	0	10	10	-20	65	PUR	121K0497 <sub>1</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8274
	1.5	1.5	0.09	80	0	-	8	-20	50	PUR	121K0497 <sub>1</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	3510
	1.5	1.5	0.09	80	0	-	8	-20	75	PUR	121K0497 <sub>1</sub>	2995	482740	-	-	-	1.6	6.0/8.0	3510
	3	4.5	0.27	320	0	20	7	-30	65	PCTFE	E121K03	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/3.0	8274
	3	4.5	0.27	320	0	20	7	-30	60	PCTFE	E121K03	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/3.0	3510
	3	4.5	0.27	320	0	20	7	-30	75	PCTFE	E121K03	2995	481865	-	-	8	9	2.0/3.0	3510
	3	4.5	0.27	320	0	10	7	-10	65	FKM	E121K0302	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8274
	3	4.5	0.27	320	0	10	7	-10	60	FKM	E121K0302	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
	3	4.5	0.27	320	0	10	7	-10	100	FKM	E121K0302	2995	481865	-	-	8	9	2.0	3510
	3	3.5	0.21	250	0	-	4.5	-20	65	PUR	121K0397 <sub>1</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8274
	3	3.5	0.21	250	0	4.5	4	-20	65	PUR	121K0397 <sub>1</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8274
3	3.5	0.21	250	0	-	2	-20	50	PUR	121K0397 <sub>1</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	3510	
3	3.5	0.21	250	0	-	2	-20	75	PUR	121K0397 <sub>1</sub>	2995	482740	-	-	-	1.6	6.0/8.0	3510	

#### Notes:

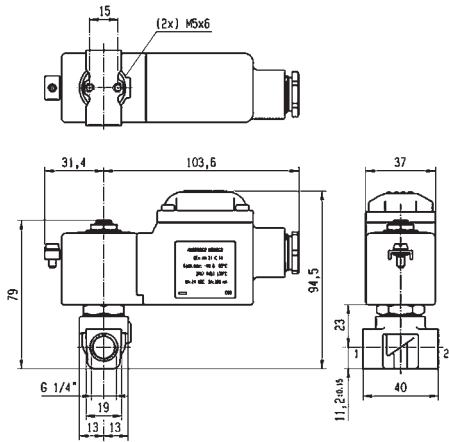
1. Valve compatible with water only up to 40°C



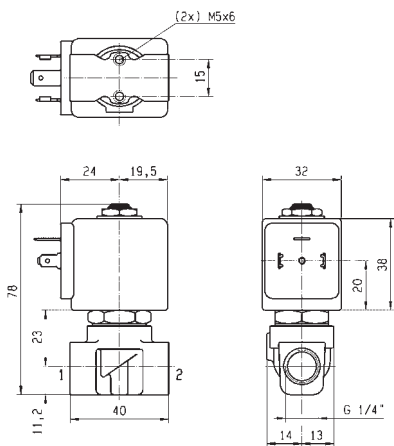
For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1	0.6	2	-30	-20
To	1/4"	3	4.5	60	100	50



Drawing 7059



Drawing 8274



Drawing 3510





## 2 WAY VALVES DIRECT OPERATED

V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING



# 2/2

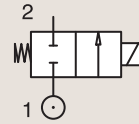
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	303 Stainless St./Pipe Mounting	Normally Closed	1/4"	1.5 to 3	4.5	20	100	40
	316L Stainless St./Pipe Mounting	Normally Closed	1/4"	0.8 to 1	0.6	200	75	42

# 2/2

## 2 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

303 STAINLESS ST.  
PIPE MOUNTING



#### NORMALLY CLOSED

Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/4"	1.5	1.5	0.09	80	0	20	20	-10	65	FKM	121V5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	1.5	1.5	0.09	80	0	20	20	-10	60	FKM	121V5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	1.5	1.5	0.09	80	0	20	20	-10	100	FKM	121V5406	2995	481865	-	-	8	9	2.0	8116
	1.5	1.5	0.09	80	0	-	10	-20	65	PUR	121V5497	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	3.0/6.0/8.0	8024
	1.5	1.5	0.09	80	0	10	10	-20	65	PUR	121V5497	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	8024
	1.5	1.5	0.09	80	0	-	8	-20	50	PUR	121V5497	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.0/6.0/8.0	8116
	1.5	1.5	0.09	80	0	-	8	-20	75	PUR	121V5497	2995	482740	-	-	-	1.6	3.0/6.0/8.0	8116
	3	4.5	0.27	315	0	10	7	-10	65	FKM	121V5306	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	3	4.5	0.27	315	0	10	7	-10	60	FKM	121V5306	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	3	4.5	0.27	315	0	10	7	-10	100	FKM	121V5306	2995	481865	-	-	8	9	2.0	8116
	3	3.5	0.21	220	0	-	4.5	-20	65	PUR	121V5397	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	3.0/6.0/8.0	8024
	3	3.5	0.21	220	0	4.5	4	-20	65	PUR	121V5397	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	8024
	3	3.5	0.21	220	0	-	2	-20	50	PUR	121V5397	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.0/6.0/8.0	8116
	3	3.5	0.21	220	0	-	2	-20	75	PUR	121V5397	2995	482740	-	-	-	1.6	3.0/6.0/8.0	8116

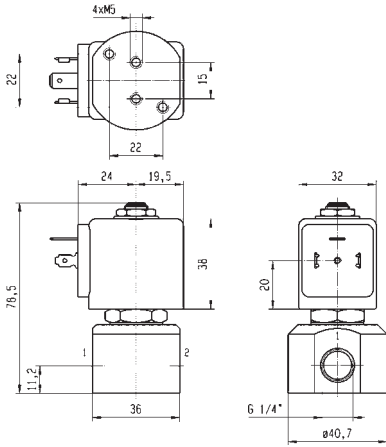
**Notes:**

1. Valve compatible with water only up to 40°C

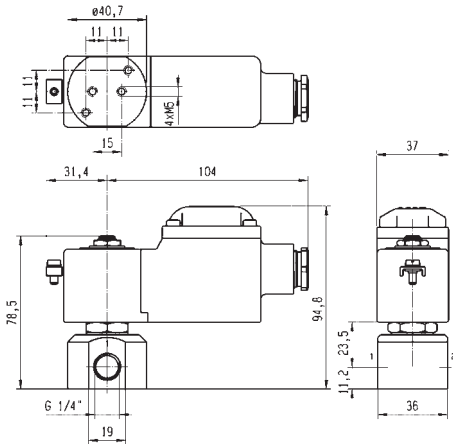




For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1.5	1.5	2	-20	-20
To	1/4"	3	4.5	20	100	50



Drawing 8116



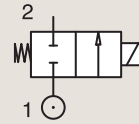
Drawing 8024

# 2/2

## 2 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING



### NORMALLY CLOSED

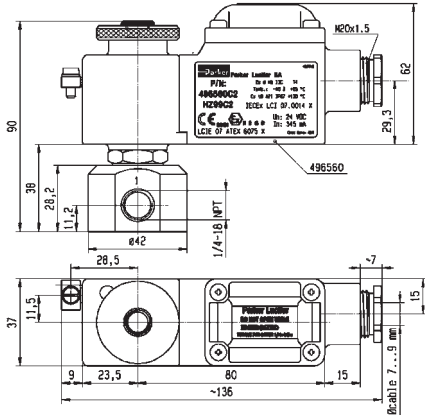
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/4" NPT	0.8	-	-	20	0	-	200	-25	65	PUR	U121VS3750A <sub>1</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8165
	0.8	-	-	20	0	-	200	-25	75	PUR	U121VS3750A <sub>1</sub>	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	6713
	0.8	-	-	20	0	200	200	-25	75	PUR	U121VS3750A <sub>1</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	6713
	0.8	-	-	20	0	200	200	-25	65	PUR	U121VS3750A <sub>1</sub>	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8165
	0.8	-	-	20	0	200	200	-25	65	PUR	U121VS3750A <sub>1</sub>	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8165
	1	0.6	0.04	40	0	-	98	-40	75	PUR	U121V5595 <sub>23</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8165
	1	0.6	0.04	40	0	-	98	-40	75	PUR	U121V5595 <sub>23</sub>	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	6713
	1	0.6	0.04	40	0	98	98	-40	65	PUR	U121V5595 <sub>23</sub>	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8165
	1	0.6	0.04	40	0	98	98	-40	75	PUR	U121V5595 <sub>23</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	6713
	1	0.6	0.04	40	0	98	98	-40	65	PUR	U121V5595 <sub>23</sub>	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8165
	1	0.6	0.04	40	0	98	98	-40	50	PUR	U121V5595 <sub>23</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8165
	1	0.6	0.04	40	0	-	98	-40	65	PUR	U121V7595 <sub>3</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/10.3	8165
	1	0.6	0.04	40	0	98	98	-40	65	PUR	U121V7595 <sub>3</sub>	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2/10.3	8165
	1	0.6	0.04	40	0	98	98	-40	65	PUR	U121V7595 <sub>3</sub>	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.2/10.3	8299
1	0.6	0.04	40	0	98	98	-40	50	PUR	U121V7595 <sub>3</sub>	-	496895	-	-	8	8	9.0/10.1/10.2/10.3	8165	

#### Notes:

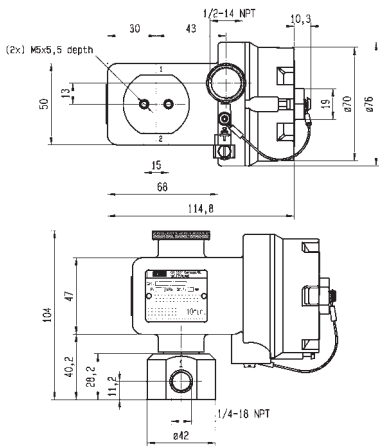
1. Valve only compatible with neutral gases
2. Valve delivered with an individual material traceability certificate (3.1 following EN10204)
3. Valve compatible with water only up to 40°C



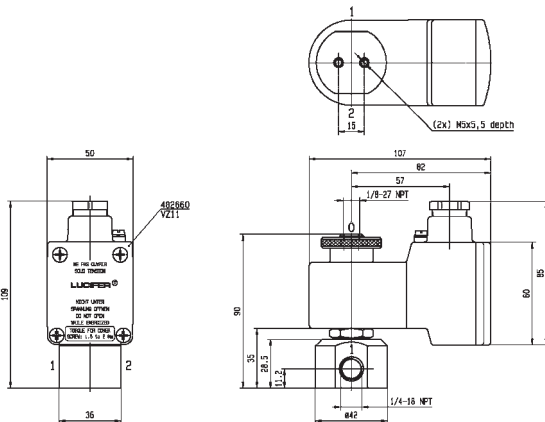
For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	0.8	-	98	-40	-40
To	1/4"	1	0.6	200	75	75



Drawing 8165



Drawing 8299



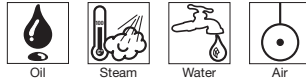
Drawing 6713





# 3 WAY VALVES DIRECT OPERATED

## K SERIES - BRASS VALVES FOR PIPE MOUNTING



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Brass/Pipe Mounting	Normally Closed	1/8"	1.5 to 2.5	3.5	15	100	46
			1/4"	1 to 2.5	3.5	30	140	48
		Normally Open	1/4"	1.5 to 2.5	2.2	16	100	54
		Universal	1/8"	1.5 to 2.5	3.5	10	100	56
			1/4"	0.8 to 2.5	3.5	30	100	58
		Control by Electric Impulse	1/4"	1.5 to 2.5	3.5	16	100	60

# 3/2

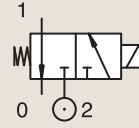
## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING

**NORMALLY CLOSED**



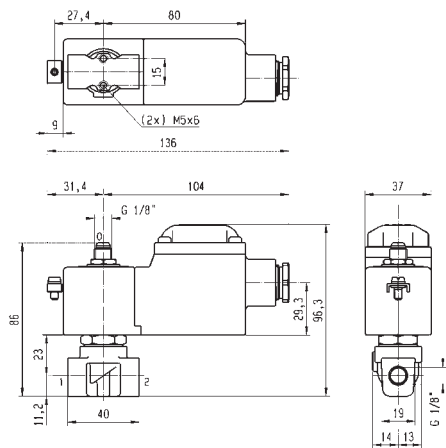
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/8"	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	E131K14	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8019
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	E131K14	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	1.5	1.5	0.09	80	0	15	15	-10	100	FKM	E131K14	2995	481865	-	-	8	9	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	65	FKM	131K16	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8019
	2	2.5	0.15	140	0	10	10	-10	60	FKM	131K16	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	100	FKM	131K16	2995	481865	-	-	8	9	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	65	FKM	131K1650 <sup>1</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8019
	2	2.5	0.15	140	0	10	10	-10	60	FKM	131K1650 <sup>1</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	100	FKM	131K1650 <sup>1</sup>	2995	481865	-	-	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	E131K13	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8019
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	E131K13	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	E131K13	2995	481865	-	-	8	9	2.1	3510

**Notes:**

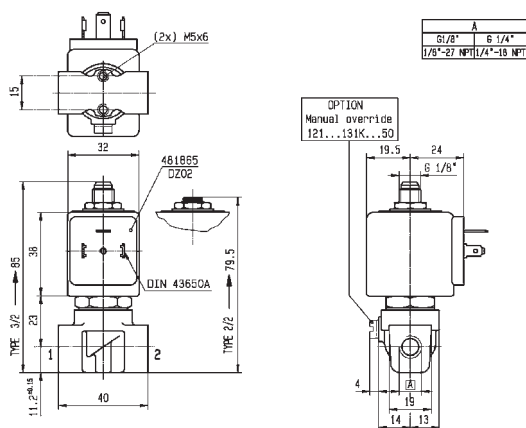
1. With manual override



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	1.5	1.5	7	-10	-10
To	1/8"	2.5	3.5	15	100	50



Drawing 8019



Drawing 3510

# 3/2

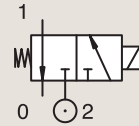
## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

#### BRASS

#### PIPE MOUNTING

#### NORMALLY CLOSED



Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1	0.6	0.04	36	0	-	10	-10	55	FKM	131K0490	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7058
	1	0.6	0.04	36	0	-	10	-10	65	FKM	131K0490	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7058
	1	0.6	0.04	36	0	10	10	-10	65	FKM	131K0490	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7058
	1.2	0.8	0.05	50	0	30	30	-30	65	Ruby	E131K64 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	1.2	0.8	0.05	50	0	30	30	-30	60	Ruby	E131K64 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8119
	1.2	0.8	0.05	50	0	30	30	-30	140	Ruby	E131K64 <sub>3</sub>	2995	481865	-	-	8	9	2.0	8119
	1.2	0.8	0.05	50	0	30	30	-30	65	Ruby	E131K6450 <sub>13</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1.2	0.8	0.05	50	0	30	30	-30	60	Ruby	E131K6450 <sub>13</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8119
	1.2	0.8	0.05	50	0	30	30	-30	140	Ruby	E131K6450 <sub>13</sub>	2995	481865	-	-	8	9	2.1	8119
	1.5	1.5	0.09	80	0	-	7	-20	65	PUR	131K0497 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8023
	1.5	1.5	0.09	80	0	7	7	-20	65	PUR	131K0497 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8023
	1.5	1.5	0.09	80	0	-	7	-20	50	PUR	131K0497 <sub>2</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	8023
	1.5	1.5	0.09	80	0	-	7	-20	75	PUR	131K0497 <sub>2</sub>	2995	482740	-	-	-	1.6	6.0/8.0	8023
	1.5	1.5	0.09	80	0	16	16	-10	65	FKM	E131K04	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	1.5	1.5	0.09	80	0	16	16	-10	60	FKM	E131K04	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8119
	1.5	1.5	0.09	80	0	16	16	-10	100	FKM	E131K04	2995	481865	-	-	8	9	2.0	8119
	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	E131K0450 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	E131K0450 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8119
1.5	1.5	0.09	80	0	15	15	-10	100	FKM	E131K0450 <sub>1</sub>	2995	481865	-	-	8	9	2.1	8119	

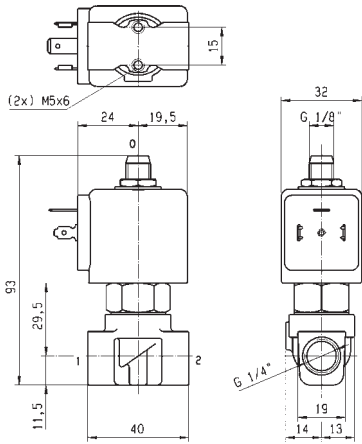
#### Notes:

1. With manual override
2. Valve compatible with water only up to 40°C
3. Valve not recommended for use with gases

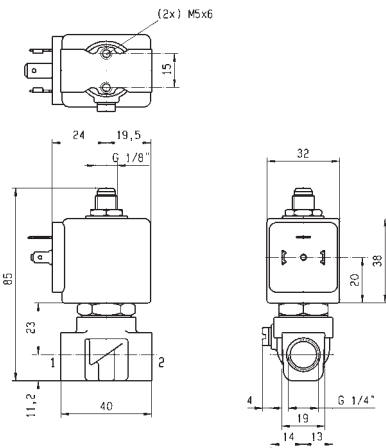




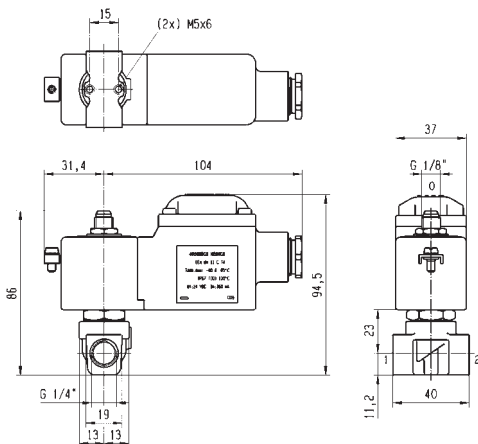
For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1	0.6	7	-30	-20
To	1/4"	1.5	1.5	30	140	50



Drawing 7058



Drawing 8119



Drawing 8023

# 3/2

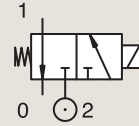
## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING

**NORMALLY CLOSED**



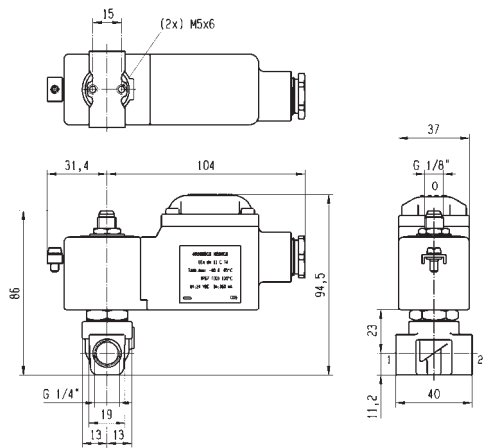
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1.8	2	0.12	110	0	10	10	-40	65	PUR	131K0608	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1.8	2	0.12	110	0	10	10	-40	60	PUR	131K0608	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8119
	1.8	2	0.12	110	0	10	10	-40	75	PUR	131K0608	2995	481865	-	-	8	9	2.1	8119
	2	2.5	0.15	140	0	10	10	-10	65	FKM	E131K06	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	2	2.5	0.15	140	0	10	10	-10	60	FKM	E131K06	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8119
	2	2.5	0.15	140	0	10	10	-10	100	FKM	E131K06	2995	481865	-	-	8	9	2.0	8119

**Notes:**

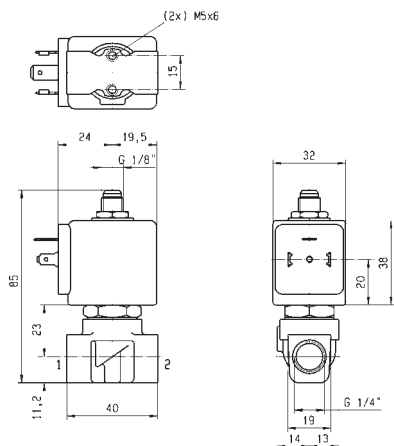
1. Valve compatible with water only up to 40°C



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1.8	2	10	-40	-10
To	1/4"	2	2.5	10	100	50



Drawing 8023



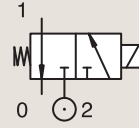
Drawing 8119

# 3/2

## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

#### BRASS PIPE MOUNTING



#### NORMALLY CLOSED

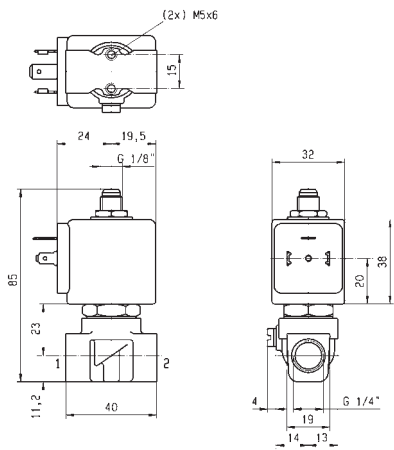
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4"	2	2.5	0.15	140	0	10	10	-10	65	FKM	E131K0650 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	60	FKM	E131K0650 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2	2.5	0.15	140	0	10	10	-10	100	FKM	E131K0650 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510
	2.5	3	0.18	180	0	-	2	-20	65	PUR	131K0397 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8023
	2.5	3	0.18	180	0	2	2	-20	65	PUR	131K0397 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8023
	2.5	3	0.18	180	0	-	2	-20	50	PUR	131K0397 <sub>2</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	8023
	2.5	3	0.18	180	0	-	2	-20	75	PUR	131K0397 <sub>2</sub>	2995	482740	-	-	-	1.6	6.0/8.0	8023
	2.5	2.7	0.16	220	0.1	7	7	-10	65	FKM	E131E03 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	3525
	2.5	2.7	0.16	220	0.1	7	7	-10	60	FKM	E131E03 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3525
	2.5	2.7	0.16	220	0.1	7	7	-10	75	FKM	E131E03 <sub>3</sub>	2995	481865	-	-	8	9	2.0	3525
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	E131K03	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	E131K03	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	E131K03	2995	481865	-	-	8	9	2.0	3510
	2.5	3.5	0.21	220	0	7	7	-40	65	PUR	E131K0308 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2.5	3.5	0.21	220	0	7	7	-40	60	PUR	E131K0308 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-40	75	PUR	E131K0308 <sub>2</sub>	2995	481865	-	-	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	E131K0350 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	E131K0350 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	E131K0350 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510
	2.5	3.5	0.21	220	0	7	7	-40	65	PUR	E131K0358 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
2.5	3.5	0.21	220	0	7	7	-40	60	PUR	E131K0358 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510	
2.5	3.5	0.21	220	0	7	7	-40	75	PUR	E131K0358 <sub>12</sub>	2995	481865	-	-	8	9	2.1	3510	
2.5	3.5	0.21	220	0	7	7	-30	65	Ruby	E131K63	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023	
2.5	3.5	0.21	220	0	7	7	-30	60	Ruby	E131K63	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510	
2.5	3.5	0.21	220	0	7	7	-30	100	Ruby	E131K63	2995	481865	-	-	8	9	2.0	3510	
2.5	3.5	0.21	220	0	7	7	-30	65	Ruby	E131K6350 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023	
2.5	3.5	0.21	220	0	7	7	-30	60	Ruby	E131K6350 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510	
2.5	3.5	0.21	220	0	7	7	-30	100	Ruby	E131K6350 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510	

#### Notes:

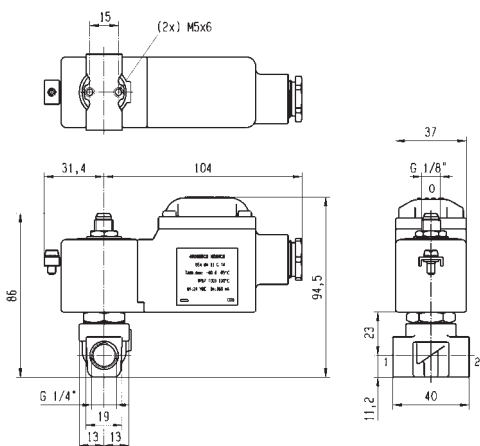
1. With manual override
2. Valve compatible with water only up to 40°C
3. Quick exhaust valve



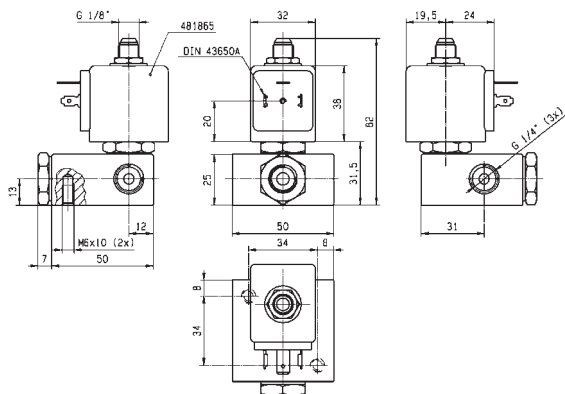
For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	2	2.5	7	-40	-40
To	1/4"	2.5	3.5	10	100	50



Drawing 3510



Drawing 8023



Drawing 3525

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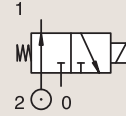
## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING

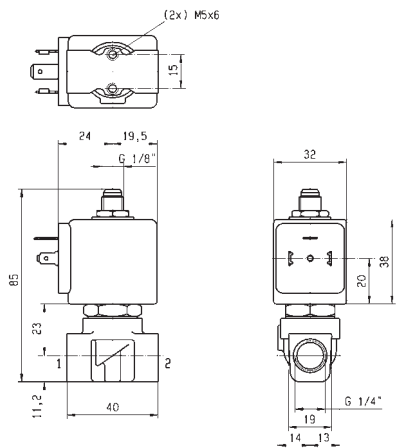
**NORMALLY OPEN**



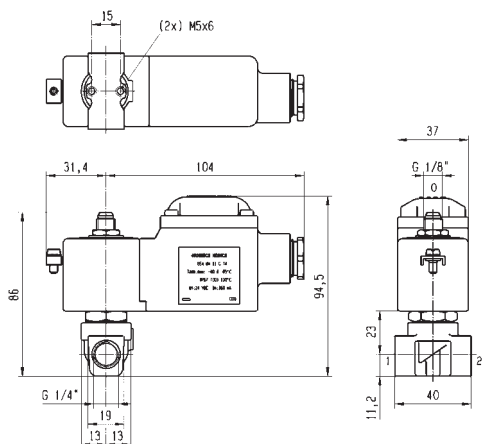
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1.5	1.4	0.08	80	0	16	16	-10	65	FKM	132K04	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1.5	1.4	0.08	80	0	16	16	-10	60	FKM	132K04	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	1.5	1.4	0.08	80	0	16	16	-10	100	FKM	132K04	2995	481865	-	-	8	9	2.1	3510
	2	1.8	0.11	125	0	10	10	-10	65	FKM	132K06	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2	1.8	0.11	125	0	10	10	-10	60	FKM	132K06	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2	1.8	0.11	125	0	10	10	-10	100	FKM	132K06	2995	481865	-	-	8	9	2.1	3510
	2.5	2.2	0.13	160	0	7	7	-10	65	FKM	132K03	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2.5	2.2	0.13	160	0	7	7	-10	60	FKM	132K03	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2.5	2.2	0.13	160	0	7	7	-10	100	FKM	132K03	2995	481865	-	-	8	9	2.1	3510



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1.5	1.4	7	-10	-10
To	1/4"	2.5	2.2	16	100	50



Drawing 3510



Drawing 8023

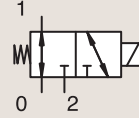
# 3/2

## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING



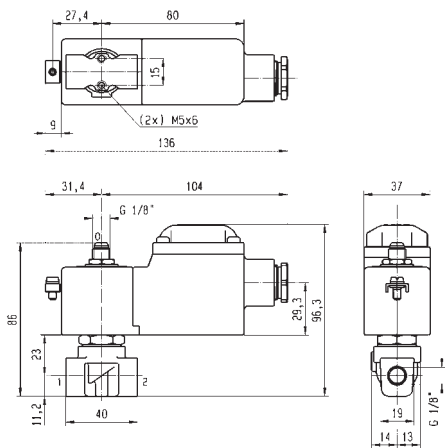
### UNIVERSAL

Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/8"	BSP	mm																	
	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	E133K14	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	E133K14	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	1.5	1.5	0.09	80	0	10	10	-10	100	FKM	E133K14	2995	481865	-	-	8	9	2.1	3510
	2	2.5	0.15	145	0	7	7	-10	65	FKM	E133K16	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2	2.5	0.15	145	0	7	7	-10	60	FKM	E133K16	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
	2	2.5	0.15	145	0	7	7	-10	100	FKM	E133K16	2995	481865	-	-	8	9	2.1	3510
	2.5	3.5	0.21	220	0	4	4	-10	65	FKM	E133K13	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	2.5	3.5	0.21	220	0	4	4	-10	60	FKM	E133K13	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
2.5	3.5	0.21	220	0	4	4	-10	100	FKM	E133K13	2995	481865	-	-	8	9	2.1	3510	

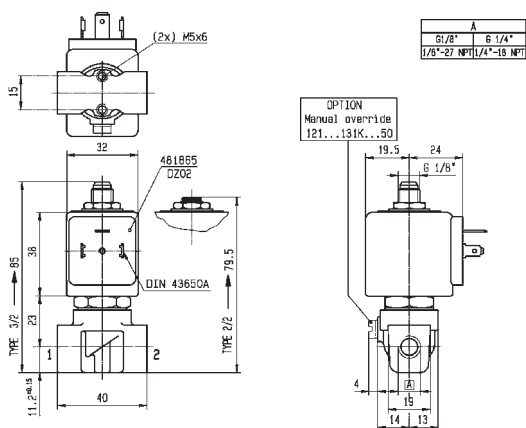




For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	1.5	1.5	4	-10	-10
To	1/8"	2.5	3.5	10	100	50



Drawing 8023



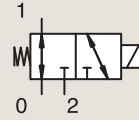
Drawing 3510

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## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

#### BRASS PIPE MOUNTING



#### UNIVERSAL

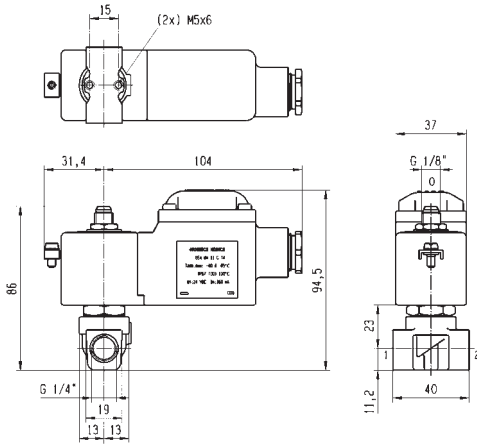
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	0.8	0.3	0.02	23	0	30	30	-10	60	FKM	E133K05	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	0.8	0.3	0.02	23	0	30	30	-10	60	FKM	E133K05	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
	0.8	0.3	0.02	23	0	30	30	-10	100	FKM	E133K05	2995	481865	-	-	8	9	2.0	3510
	1.5	1.5	0.09	80	0	-	3	-20	65	PUR	133K0497 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8023
	1.5	1.5	0.09	80	0	3	3	-20	65	PUR	133K0497 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8023
	1.5	1.5	0.09	80	0	-	3	-20	50	PUR	133K0497 <sub>2</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	3510
	1.5	1.5	0.09	80	0	-	3	-20	75	PUR	133K0497 <sub>2</sub>	2995	482740	-	-	-	1.6	6.0/8.0	3510
	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	E133K04	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	E133K04	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
	1.5	1.5	0.09	80	0	10	10	-10	100	FKM	E133K04	2995	481865	-	-	8	9	2.0	3510
	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	E133K0450 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
	1/4"	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	E133K0450 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1
1.5		1.5	0.09	80	0	10	10	-10	100	FKM	E133K0450 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510
2		2.5	0.15	145	0	7	7	-10	65	FKM	E133K06	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/3.0	8023
2		2.5	0.15	145	0	7	7	-10	60	FKM	E133K06	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/3.0	3510
2		2.5	0.15	145	0	7	7	-10	100	FKM	E133K06	2995	481865	-	-	8	9	2.0/3.0	3510
2		2.5	0.15	145	0	7	7	-10	65	FKM	E133K0650 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
2		2.5	0.15	145	0	7	7	-10	60	FKM	E133K0650 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510
2		2.5	0.15	145	0	7	7	-10	100	FKM	E133K0650 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510
2.5		3.5	0.21	220	0	4	4	-10	65	FKM	E133K03	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8023
2.5		3.5	0.21	220	0	4	4	-10	60	FKM	E133K03	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	3510
2.5		3.5	0.21	220	0	4	4	-10	100	FKM	E133K03	2995	481865	-	-	8	9	2.0	3510
2.5		3.5	0.21	220	0	4	4	-10	65	FKM	E133K0350 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8023
2.5	3.5	0.21	220	0	4	4	-10	60	FKM	E133K0350 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3510	
2.5	3.5	0.21	220	0	4	4	-10	100	FKM	E133K0350 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3510	

#### Notes:

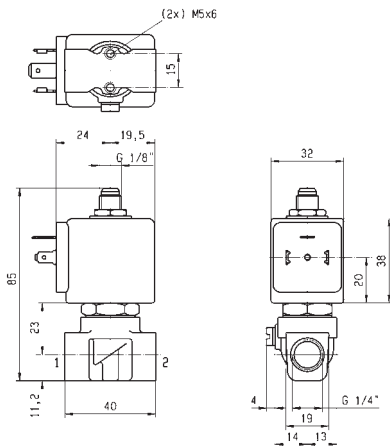
1. With manual override
2. Valve compatible with water only up to 40°C



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	0.8	0.3	3	-20	-20
To	1/4"	2.5	3.5	30	100	50



Drawing 8023



Drawing 3510

# 3/2

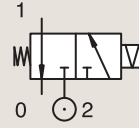
## 3 WAY VALVES DIRECT OPERATED

### K SERIES - BRASS VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING

CONTROL BY ELECTRIC IMPULSE



Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1.5	1.5	0.09	80	0	-	16	-10	100	FKM	135K04	4269	485400	-	-	-	13	4.0	8104
	1.5	1.5	0.09	80	0	16	-	-10	100	FKM	135K04	4269	484990	-	-	11	-	4.0	8104
	2.5	3.5	0.21	220	0	7	-	-10	100	FKM	135K03	4269	484990	-	-	11	-	4.0	8104
	2.5	3.5	0.21	220	0	-	7	-10	100	FKM	135K03	4269	485400	-	-	-	13	4.0	8104





# 3 WAY VALVES DIRECT OPERATED

## T SERIES - BRASS VALVES FOR T SHAPE MOUNTING



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Brass/Pipe Mounting	Normally Closed	1/4"	2 to 4.5	7	10	75	64
		Normally Open	1/4"	2 to 3	4.5	10	75	66
		Universal	1/4"	2 to 3	4.5	7	75	68

# 3/2

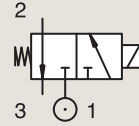
## 3 WAY VALVES DIRECT OPERATED

### T SERIES - BRASS VALVES FOR T SHAPE MOUNTING

BRASS

PIPE MOUNTING

**NORMALLY CLOSED**



Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
					Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
		bar	AC bar	DC bar	°C	°C														
BSP	2	2.5	0.15	140	0	10	10	-10	65	FKM	131T23	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8356	
	2	2.5	0.15	140	0	10	10	-10	60	FKM	131T23	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8356	
	2	2.5	0.15	140	0	10	10	-10	75	FKM	131T23	2995	481865	-	-	8	9	2.0	8356	
	2	2.5	0.15	140	0	10	10	-10	65	FKM	131T2301	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8345	
	2	2.5	0.15	140	0	10	10	-10	60	FKM	131T2301	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8345	
	2	2.5	0.15	140	0	10	10	-10	75	FKM	131T2301	2995	481865	-	-	8	9	2.0	8345	
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	131T29	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8356	
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	131T29	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8356	
	2.5	3.5	0.21	220	0	7	7	-10	75	FKM	131T29	2995	481865	-	-	8	9	2.1	8356	
	1/4"	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	131T2901	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8345
		2.5	3.5	0.21	220	0	7	7	-10	60	FKM	131T2901	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8345
		2.5	3.5	0.21	220	0	7	7	-10	75	FKM	131T2901	2995	481865	-	-	8	9	2.1	8345
		3	4.5	0.27	355	0	10	-	-10	75	FKM	131T22	2995	492425	-	-	14	-	2.2	8356
		3	4.5	0.27	355	0	10	-	-10	75	FKM	131T22	4270	481044	-	-	14	-	2.2	8356
		4.5	7	0.42	500	0	2	2	-10	65	FKM	131T21	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8356
		4.5	7	0.42	500	0	2	2	-10	60	FKM	131T21	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8356
		4.5	7	0.42	500	0	2	2	-10	75	FKM	131T21	2995	481865	-	-	8	9	2.0	8356
		4.5	7	0.42	500	0	2	2	-10	65	FKM	131T2101	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8345
4.5	7	0.42	500	0	2	2	-10	60	FKM	131T2101	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8345		
4.5	7	0.42	500	0	2	2	-10	75	FKM	131T2101	2995	481865	-	-	8	9	2.1	8345		

**Notes:**

1. With manual override





# 3/2

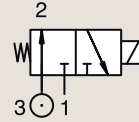
## 3 WAY VALVES DIRECT OPERATED

### T SERIES - BRASS VALVES FOR T SHAPE MOUNTING

BRASS

PIPE MOUNTING

**NORMALLY OPEN**



Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	AC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4"	2	2.5	0.15	140	0	10	5	-10	65	FKM	132T23	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8356
	2	2.5	0.15	140	0	10	5	-10	60	FKM	132T23	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8356
	2	2.5	0.15	140	0	10	5	-10	75	FKM	132T23	2995	481865	-	-	8	9	2.0	8356
	2	2.5	0.15	140	0	10	5	-10	65	FKM	132T2301	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8345
	2	2.5	0.15	140	0	10	5	-10	60	FKM	132T2301	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8345
	2	2.5	0.15	140	0	10	5	-10	75	FKM	132T2301	2995	481865	-	-	8	9	2.0	8345
	2.5	3.5	0.21	220	0	7	3.5	-10	65	FKM	132T29	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8356
	2.5	3.5	0.21	220	0	7	3.5	-10	60	FKM	132T29	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8356
	2.5	3.5	0.21	220	0	7	3.5	-10	75	FKM	132T29	2995	481865	-	-	8	9	2.0	8356
	3	4.5	0.27	355	0	7	-	-10	75	FKM	132T22	2995	492425	-	-	14	-	2.2	8356
	3	4.5	0.27	355	0	10	-	-10	75	FKM	132T22	4270	481044	-	-	14	-	2.2	8356

**Notes:**

1. With manual override



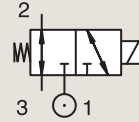
# 3/2

## 3 WAY VALVES DIRECT OPERATED

### T SERIES - BRASS VALVES FOR T SHAPE MOUNTING

BRASS

PIPE MOUNTING



### UNIVERSAL

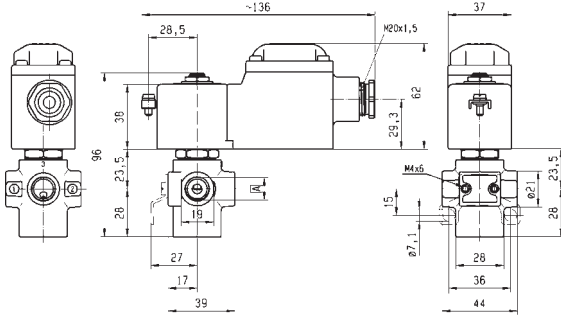
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	2	2.5	0.15	140	0	7	7	-10	65	FKM	133T23	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8356
	2	2.5	0.15	140	0	7	7	-10	60	FKM	133T23	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8356
	2	2.5	0.15	140	0	7	7	-10	75	FKM	133T23	2995	481865	-	-	8	9	2.1	8356
	2	2.5	0.15	140	0	7	7	-10	65	FKM	133T2301 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8345
	2	2.5	0.15	140	0	7	7	-10	60	FKM	133T2301 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8345
	2	2.5	0.15	140	0	7	7	-10	75	FKM	133T2301 <sub>1</sub>	2995	481865	-	-	8	9	2.1	8345
	3	4.5	0.27	355	0	2	2	-10	65	FKM	133T21	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8356
	3	4.5	0.27	355	0	2	2	-10	60	FKM	133T21	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8356
	3	4.5	0.27	355	0	2	2	-10	75	FKM	133T21	2995	481865	-	-	8	9	2.1	8356
	3	4.5	0.27	355	0	2	2	-10	65	FKM	133T2101 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8345
	3	4.5	0.27	355	0	2	2	-10	60	FKM	133T2101 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8345
	3	4.5	0.27	355	0	2	2	-10	75	FKM	133T2101 <sub>1</sub>	2995	481865	-	-	8	9	2.1	8345

**Notes:**

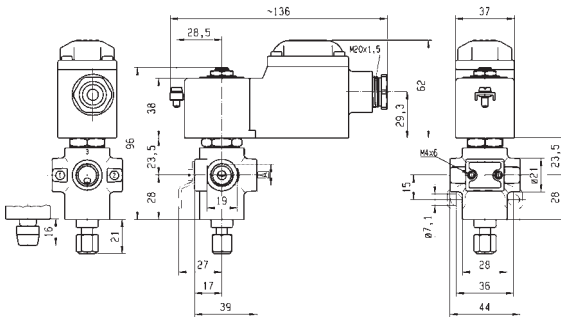
1. With manual override



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	2	2.5	2	-10	-10
To	1/4"	3	4.5	7	75	50



Drawing 8356



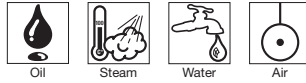
Drawing 8345





## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Brass/Sub-base Mounting	Normally Closed	5 mm	1 to 2.5	3.5	16	100	72
		Normally Open	5 mm	1.5 to 2.5	2.2	15	100	76
		Universal	5 mm	1.5 to 2.5	3.5	10	100	78
	316L Stainless St./Sub-base Mounting	Normally Closed	5 mm	1 to 2.5	3.5	16	100	80
			6 mm	2.5	3.5	12	75	82
	POM/Sub-base Mounting	Normally Closed	3 mm	2	2	10	50	84

# 3/2

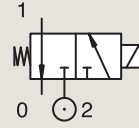
## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

BRASS

SUB-BASE MOUNTING

**NORMALLY CLOSED**



Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
SB	1	0.6	0.04	38	0	-	10	-10	55	FKM	131F4490	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7057
	1	0.6	0.04	38	0	-	10	-10	65	FKM	131F4490	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7057
	1	0.6	0.04	38	0	10	10	-10	65	FKM	131F4490	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7057
	1.5	1.5	0.09	80	0	16	16	-10	65	FKM	131F4410	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.5	0.09	80	0	16	16	-10	60	FKM	131F4410	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.5	0.09	80	0	16	16	-10	100	FKM	131F4410	2995	481865	-	-	8	9	2.1	3509
	1.5	1.5	0.09	80	0	-	7	-20	65	PUR	131F4497 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8022
	1.5	1.5	0.09	80	0	7	7	-20	65	PUR	131F4497 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8022
	1.5	1.5	0.09	80	0	-	7	-20	50	PUR	131F4497 <sub>2</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	3509
	1.5	1.5	0.09	80	0	-	7	-20	75	PUR	131F4497 <sub>2</sub>	2995	482740	-	-	-	1.6	6.0/8.0	3509
	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	E131F44	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	E131F44	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.5	0.09	80	0	15	15	-10	100	FKM	E131F44	2995	481865	-	-	8	9	2.1	3509
	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	E131F4450 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	E131F4450 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.5	0.09	80	0	15	15	-10	100	FKM	E131F4450 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3509
	2	2.5	0.15	140	0	10	10	-10	65	FKM	131F46	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2	2.5	0.15	140	0	10	10	-10	60	FKM	131F46	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2	2.5	0.15	140	0	10	10	-10	100	FKM	131F46	2995	481865	-	-	8	9	2.1	3509
	2	2.5	0.15	140	0	7	7	-10	65	FKM	131F4650 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
2	2.5	0.15	140	0	7	7	-10	60	FKM	131F4650 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509	
2	2.5	0.15	140	0	7	7	-10	100	FKM	131F4650 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3509	

**Notes:**

1. With manual override
2. Valve compatible with water only up to 40°C





# 3/2

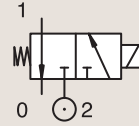
## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

BRASS

SUB-BASE MOUNTING

**NORMALLY CLOSED**



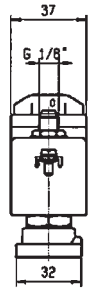
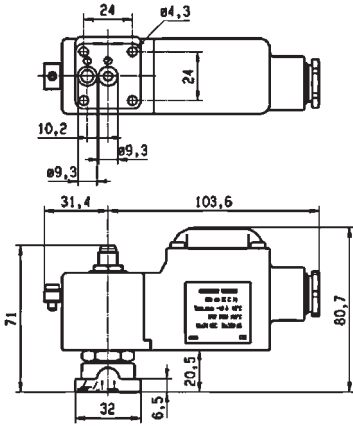
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
SB	2.5	3.5	0.21	220	0	9	9	-30	65	PUR	131F4310 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	3.5	0.21	220	0	9	9	-30	60	PUR	131F4310 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2.5	3.5	0.21	220	0	9	9	-30	75	PUR	131F4310 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3509
	2.5	3	0.18	180	0	-	2	-20	65	PUR	131F4397 <sub>1</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8022
	2.5	3	0.18	180	0	2	2	-20	65	PUR	131F4397 <sub>1</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8022
	2.5	3	0.18	180	0	-	2	-20	50	PUR	131F4397 <sub>1</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	3509
	2.5	3	0.18	180	0	-	2	-20	75	PUR	131F4397 <sub>1</sub>	2995	482740	-	-	-	1.6	6.0/8.0	3509
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	E131F43	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	E131F43	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	E131F43	2995	481865	-	-	8	9	2.1	3509
	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	E131F4350 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	E131F4350 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	E131F4350 <sub>2</sub>	2995	481865	-	-	8	9	2.1	3509

**Notes:**

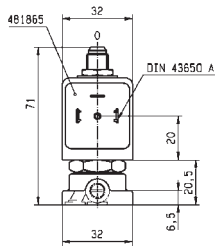
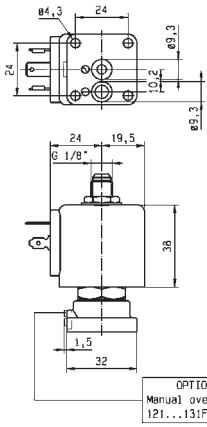
1. Valve only compatible with air and neutral gases
2. With manual override



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	5 mm	2.5	3	2	-30	-30
To	5 mm	2.5	3.5	9	100	50



Drawing 8022



Drawing 3509

# 3/2

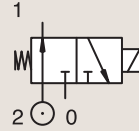
## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

BRASS

SUB-BASE MOUNTING

NORMALLY OPEN



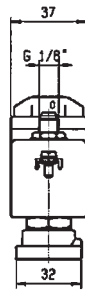
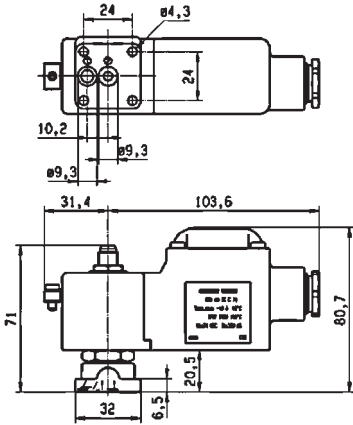
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
SB	1.5	1.4	0.08	80	0	15	15	-10	65	FKM	132F44	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.4	0.08	80	0	15	15	-10	60	FKM	132F44	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.4	0.08	80	0	15	15	-10	100	FKM	132F44	2995	481865	-	-	8	9	2.1	3509
	2	1.8	0.11	125	0	10	10	-10	65	FKM	132F46	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2	1.8	0.11	125	0	10	10	-10	60	FKM	132F46	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2	1.8	0.11	125	0	10	10	-10	100	FKM	132F46	2995	481865	-	-	8	9	2.1	3509
	2.5	2.2	0.13	160	0	7	7	-10	65	FKM	132F43	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	2.2	0.13	160	0	7	7	-10	60	FKM	132F43	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2.5	2.2	0.13	160	0	7	7	-10	100	FKM	132F43	2995	481865	-	-	8	9	2.1	3509
	2.5	2.2	0.13	160	0	7	7	-10	65	PUR	132F4301	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	2.2	0.13	160	0	7	7	-10	60	PUR	132F4301	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2.5	2.2	0.13	160	0	7	7	-10	75	PUR	132F4301	2995	481865	-	-	8	9	2.1	3509

**Notes:**

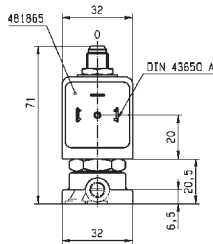
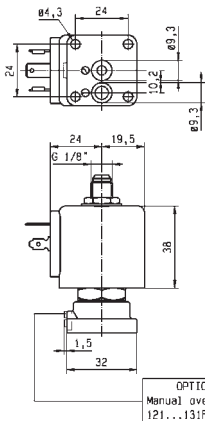
1. Valve only compatible with air and neutral gases



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	5 mm	1.5	1.4	7	-10	-10
To	5 mm	2.5	2.2	15	100	50



Drawing 8022



OPTION  
Manual override  
121...131F...50



Drawing 3509

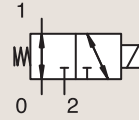
# 3/2

## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

BRASS

SUB-BASE MOUNTING



UNIVERSAL

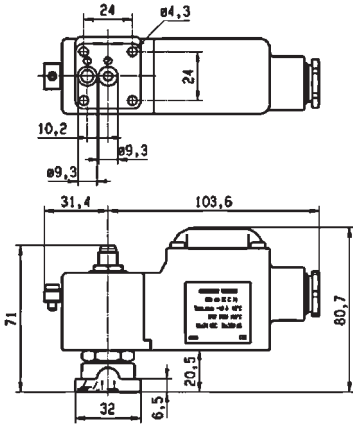
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
SB	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	E133F44	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	E133F44	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.5	0.09	80	0	10	10	-10	100	FKM	E133F44	2995	481865	-	-	8	9	2.1	3509
	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	E133F4450 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	E133F4450 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	1.5	1.5	0.09	80	0	10	10	-10	100	FKM	E133F4450 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3509
	2	2.5	0.15	140	0	7	7	-10	65	FKM	133F46	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2	2.5	0.15	140	0	7	7	-10	60	FKM	133F46	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2	2.5	0.15	140	0	7	7	-10	100	FKM	133F46	2995	481865	-	-	8	9	2.1	3509
	2	2.5	0.15	140	0	7	7	-10	65	FKM	133F4650 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2	2.5	0.15	140	0	7	7	-10	60	FKM	133F4650 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
	2	2.5	0.15	140	0	7	7	-10	100	FKM	133F4650 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3509
	2.5	3.5	0.21	220	0	4	4	-10	40	FKM	E133F43	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8022
	2.5	3.5	0.21	220	0	4	4	-10	60	FKM	E133F43	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509
2.5	3.5	0.21	220	0	4	4	-10	100	FKM	E133F43	2995	481865	-	-	8	9	2.1	3509	

**Notes:**

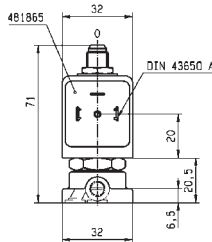
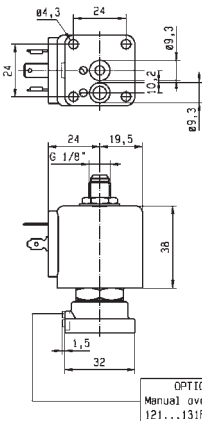
1. With manual override



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	5 mm	1.5	1.5	4	-10	-10
To	5 mm	2.5	3.5	10	100	50



Drawing 8022



OPTION  
Manual override  
121...131F...50



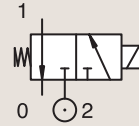
Drawing 3509

# 3/2

## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

316L STAINLESS ST.  
SUB-BASE MOUNTING



**NORMALLY CLOSED**

Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W				
	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C											
SB	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	131F5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8174	
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	131F5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3509	
	1.5	1.5	0.09	80	0	15	15	-10	100	FKM	131F5406	2995	481865	-	-	8	9	2.1	3509	
	2.5	3.5	0.21	220	0	-	12	-25	65	FKM	U131F5695	1	-	492965.01	0-20	Ex ia IIC T6	-	0.3 to 3	9.0/10.1/10.2	3782
	2.5	3.5	0.21	220	0	-	12	-25	45	FKM	U131F5695	1	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	-	12	-25	65	FKM	U131F5695	1	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	3782
	2.5	3.5	0.21	220	0	12	12	-25	75	FKM	U131F5695	1	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	3782
	2.5	3.5	0.21	220	0	12	12	-25	65	FKM	U131F5695	1	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	12	12	-25	55	FKM	U131F5695	1	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	12	12	-25	50	FKM	U131F5695	1	-	496895	-	-	8	8	9.0/10.1/10.2	8174

**Notes:**

1. Valve delivered with an individual material traceability certificate (3.1 following EN10204)



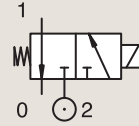


# 3/2

## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

316L STAINLESS ST.  
SUB-BASE MOUNTING



**NORMALLY CLOSED**

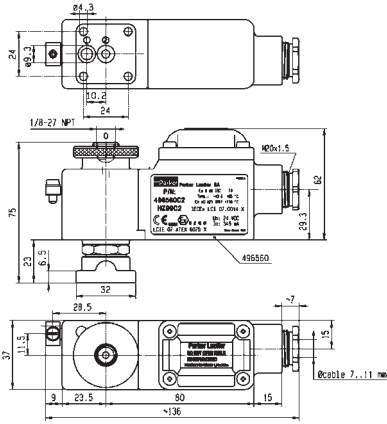
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential Min Max(MOPD)			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	AC bar	DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
SB	2.5	3.5	0.21	220	0	-	12	-25	75	FKM	U131F5295	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	12	12	-25	65	FKM	U131F5295	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	12	12	-25	65	FKM	U131F5295	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	-	12	-25	75	FKM	U131F5295	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	8343
	2.5	3.5	0.21	220	0	12	12	-25	75	FKM	U131F5295	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	8343
	2.5	3.5	0.21	220	0	12	12	-25	50	FKM	U131F5295	-	496895	-	-	8	8	9.0/10.1/10.2	8174
	2.5	3.5	0.21	220	0	-	12	-25	50	FKM	U131F7695	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/10.3	8174
	2.5	3.5	0.21	220	0	12	12	-25	75	FKM	U131F7695	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.2/10.3	8302
	2.5	3.5	0.21	220	0	12	12	-25	65	FKM	U131F7695	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2/10.3	8174
	2.5	3.5	0.21	220	0	12	12	-25	50	FKM	U131F7695	-	496895	-	-	8	8	9.0/10.1/10.2/10.3	8174

**Notes:**

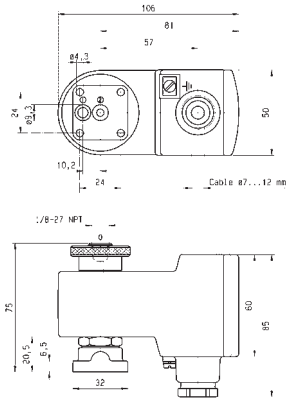
1. Valve only compatible with air and neutral gases



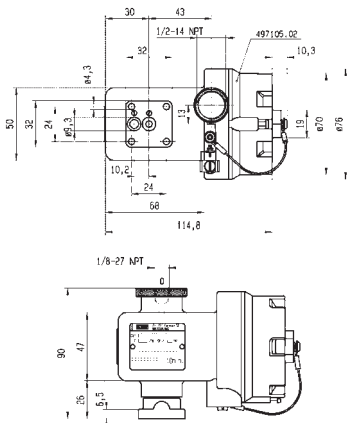
For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	6 mm	2.5	3.5	12	-25	-25
To	6 mm	2.5	3.5	12	75	50



Drawing 8174



Drawing 8343



Drawing 8302

# 3/2

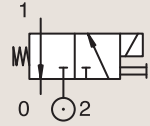
## 3 WAY VALVES DIRECT OPERATED

F SERIES - BRASS, STAINLESS STEEL AND POM VALVES FOR FLANGE MOUNTING

POM

SUB-BASE MOUNTING

**NORMALLY CLOSED**



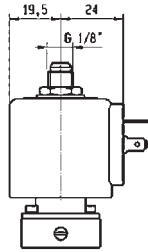
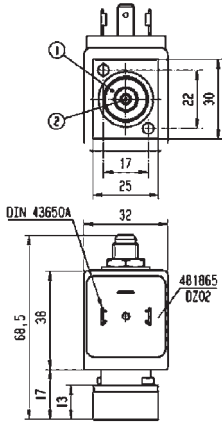
Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
SB	2	2	0.12	140	0	10	10	-10	50	FKM	E131F26 <sup>12</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1/3.0	3601
	2	2	0.12	140	0	10	10	-10	50	FKM	E131F26 <sup>12</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1/3.0	3601
	2	2	0.12	140	0	10	10	-10	50	FKM	E131F26 <sup>12</sup>	2995	481865	-	-	8	9	2.1/3.0	3601

**Notes:**

- 1. With manual override
- 2. 20% Switch-on - max. 2 min



For this page	Port size	Orifice (mm)	kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3 mm	2	2	10	-10	-10
To	3 mm	2	2	10	50	50



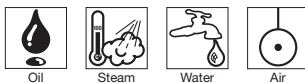
Drawing 3601





# 3 WAY VALVES DIRECT OPERATED

V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING



# 3/2

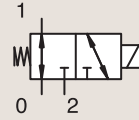
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	316L Stainless St./Pipe Mounting	Universal	1/4"	1.5 to 2.5	3.5	12	100	88
	303 Stainless St./Pipe Mounting	Normally Closed	1/4"	1 to 2.5	3.5	15	180	90
		Universal	1/4"	1.5 to 2.5	3.5	12	100	94

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## 3 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

#### 316L STAINLESS ST. PIPE MOUNTING

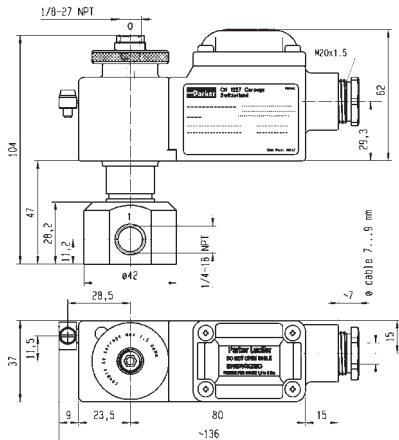


#### UNIVERSAL

Port size	Orifice Ø mm	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/4" NPT	2	2.5	0.15	140	0	-	12	-25	65	FKM	U133V5595	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1	8024
	2	2.5	0.15	140	0	12	12	-25	65	FKM	U133V5595	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1	6713
	2	2.5	0.15	140	0	12	12	-25	65	FKM	U133V5595	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1	8024
	2	2.5	0.15	140	0	-	12	-25	75	FKM	U133V5595	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1	6713
	2	2.5	0.15	140	0	12	12	-25	65	FKM	U133V5595	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1	8024
	2	2.5	0.15	140	0	12	12	-25	50	FKM	U133V5595	-	496895	-	-	8	8	9.0/10.1	8024
	2	2.5	0.15	140	0	-	12	-25	65	FKM	U133V7595	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.3	8166
	2	2.5	0.15	140	0	12	12	-25	65	FKM	U133V7595	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.3	8166
	2	2.5	0.15	140	0	12	12	-25	65	FKM	U133V7595	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.3	8299
	2	2.5	0.15	140	0	12	12	-25	50	FKM	U133V7595	-	496895	-	-	8	8	9.0/10.1/10.3	8166
	2.5	3.5	0.21	220	0	-	8.5	-25	65	FKM	U133V5695	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1	8024
	2.5	3.5	0.21	220	0	-	8.5	-25	75	FKM	U133V5695	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1	6713
	2.5	3.5	0.21	220	0	8.5	8.5	-25	75	FKM	U133V5695	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1	6713
	2.5	3.5	0.21	220	0	8.5	8.5	-25	65	FKM	U133V5695	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1	8024
	2.5	3.5	0.21	220	0	8.5	8.5	-25	65	FKM	U133V5695	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1	8024
	2.5	3.5	0.21	220	0	8.5	8.5	-25	50	FKM	U133V5695	-	496895	-	-	8	8	9.0/10.1	8024
	2.5	3.5	0.21	220	0	-	8.5	-25	65	FKM	U133V7695	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.3	8166
	2.5	3.5	0.21	220	0	8.5	8.5	-25	65	FKM	U133V7695	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.3	8166
2.5	3.5	0.21	220	0	8.5	8.5	-25	65	FKM	U133V7695	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.3	8299	
2.5	3.5	0.21	220	0	8.5	8.5	-25	50	FKM	U133V7695	-	496895	-	-	8	8	9.0/10.1/10.3	8166	

#### Notes:

1. Valve delivered with an individual material traceability certificate (3.1 following EN10204)



Drawing 8166



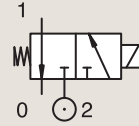


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## 3 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

#### 303 STAINLESS ST. PIPE MOUNTING

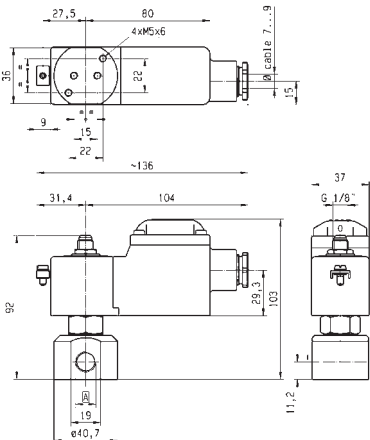


#### NORMALLY CLOSED

Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	bar	bar	°C	°C										
1/4"	1	0.6	0.04	32	0	-	10	-10	55	FKM	131V5490	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	6740
	1	0.6	0.04	32	0	-	10	-10	65	FKM	131V5490	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8344
	1	0.6	0.04	32	0	-	10	-10	65	FKM	131V5490	-	495900	1-21	Ex db mb IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8344
	1.5	1.5	0.09	80	0	15	15	-10	65	FKM	131V5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8024
	1.5	1.5	0.09	80	0	15	15	-10	60	FKM	131V5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8024
	1.5	1.5	0.09	80	0	15	15	-10	100	FKM	131V5406	2995	481865	-	-	8	9	2.1	8116
	1.5	1.5	0.09	80	0	15	15	-10	65	Ruby	131V5463 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8024
	1.5	1.5	0.09	80	0	15	15	-10	60	Ruby	131V5463 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8024
	1.5	1.5	0.09	80	0	15	15	-10	100	Ruby	131V5463 <sub>1</sub>	2995	481865	-	-	8	9	2.1	8116
	1.5	1.5	0.09	80	0	-	7	-20	65	PUR	131V5497 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	3.0/6.0/8.0	8024
1.5	1.5	0.09	80	0	7	7	-20	65	PUR	131V5497 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	8024	
1.5	1.5	0.09	80	0	-	7	-20	50	PUR	131V5497 <sub>2</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.0/6.0/8.0	8116	
1.5	1.5	0.09	80	0	-	7	-20	75	PUR	131V5497 <sub>2</sub>	2995	482740	-	-	-	1.6	3.0/6.0/8.0	8116	

#### Notes:

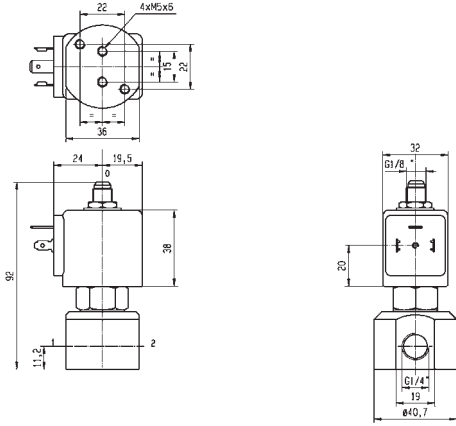
1. Valve only compatible with hydraulic oil and neutral liquids
2. Valve compatible with water only up to 40°C



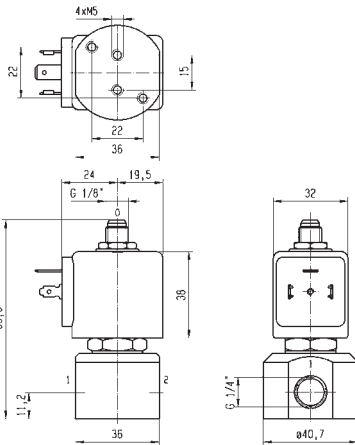
Drawing 8344



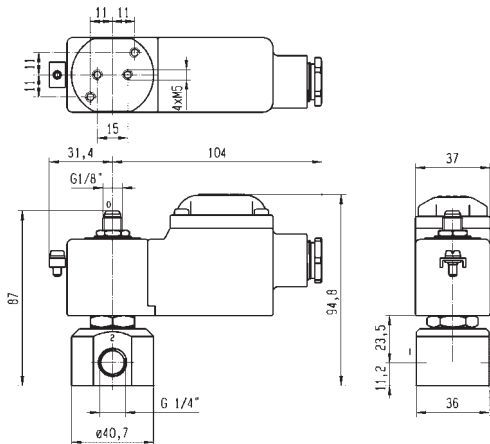
For this page	Port size	Orifice (mm)	Kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1	0.6	7	-20	-20
To	1/4"	1.5	1.5	15	100	50



Drawing 6740



Drawing 8116

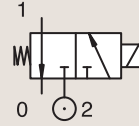


# 3/2

## 3 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

303 STAINLESS ST.  
PIPE MOUNTING



### NORMALLY CLOSED

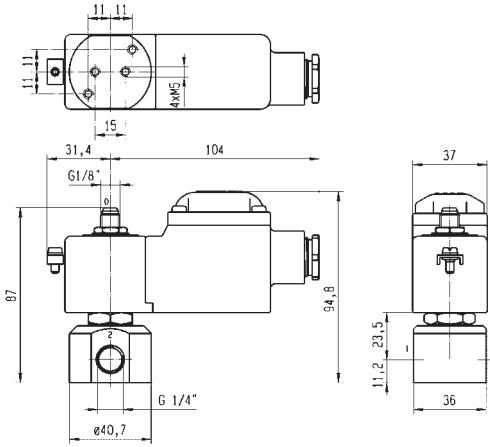
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W				
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C											
1/4"	2.5	3.5	0.21	220	0	7	7	-10	65	FKM	131V5306	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8024	
	2.5	3.5	0.21	220	0	7	7	-10	60	FKM	131V5306	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8116	
	2.5	3.5	0.21	220	0	7	7	-10	100	FKM	131V5306	2995	481865	-	-	8	9	2.1	8116	
	2.5	3.5	0.21	220	0	7	7	-30	65	Ruby	131V5363	1	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	2.5	3.5	0.21	220	0	7	7	-30	60	Ruby	131V5363	1	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	2.5	3.5	0.21	220	0	7	7	-30	100	Ruby	131V5363	1	2995	481865	-	-	8	9	2.0	8116
	2.5	3.5	0.21	220	0	7	7	-30	180	Ruby	131V5363	1	4270	486265	-	-	14	14	2.0	8116
	2.5	3	0.18	180	0	-	2	-20	65	PUR	131V5397	2	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8024
	2.5	3	0.18	180	0	2	2	-20	65	PUR	131V5397	2	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8024
	2.5	3	0.18	180	0	-	2	-20	50	PUR	131V5397	2	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	8116
2.5	3	0.18	180	0	-	2	-20	75	PUR	131V5397	2	2995	482740	-	-	-	1.6	6.0/8.0	8116	

**Notes:**

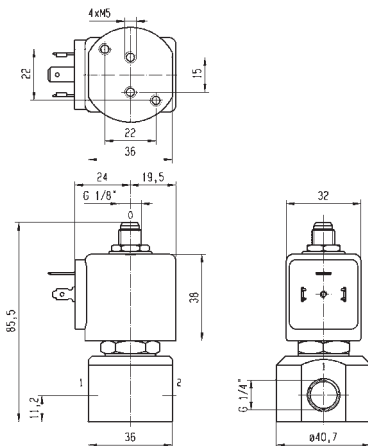
- 1. Valve only compatible with hydraulic oil and neutral liquids
- 2. Valve compatible with water only up to 40°C



For this page	Port size	Orifice (mm)	Kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	2.5	3.0	2	-30	-20
To	1/4"	2.5	3.5	7	180	50



Drawing 8024



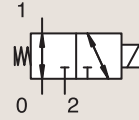
Drawing 8116

# 3/2

## 3 WAY VALVES DIRECT OPERATED

### V SERIES - STAINLESS STEEL VALVES FOR PIPE MOUNTING

#### 303 STAINLESS ST. PIPE MOUNTING



#### UNIVERSAL

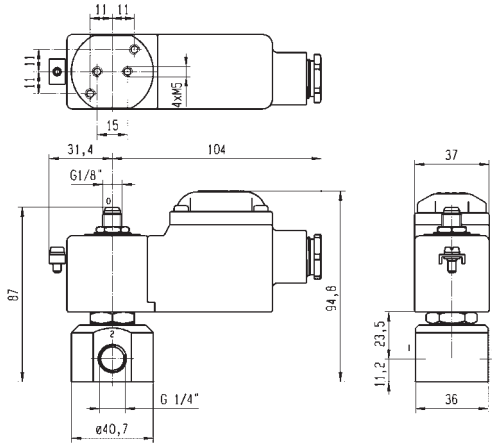
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1.5	1.5	0.09	80	0	10	10	-10	65	FKM	133V5406	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8024
	1.5	1.5	0.09	80	0	10	10	-10	60	FKM	133V5406	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8116
	1.5	1.5	0.09	80	0	10	10	-10	100	FKM	133V5406	2995	481865	-	-	8	9	2.1	8116
	1.5	1.5	0.09	80	0	10	10	-30	65	Ruby	133V5463	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	1.5	1.5	0.09	80	0	4	4	-30	60	Ruby	133V5463	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	1.5	1.5	0.09	80	0	4	4	-30	100	Ruby	133V5463	2995	481865	-	-	8	9	2.0	8116
	2.5	3.5	0.21	220	0	4	4	-10	65	FKM	133V5306	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8024
	2.5	3.5	0.21	220	0	4	4	-10	60	FKM	133V5306	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8116
	2.5	3.5	0.21	220	0	4	4	-10	100	FKM	133V5306	2995	481865	-	-	8	9	2.1	8116
	2.5	3.5	0.21	220	0	4	4	-30	65	Ruby	133V5363	-	495905	1-21	Ex db mb IIC T4	8	8	2.0	8024
	2.5	3.5	0.21	220	0	4	4	-30	60	Ruby	133V5363	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0	8116
	2.5	3.5	0.21	220	0	4	4	-30	100	Ruby	133V5363	2995	481865	-	-	8	9	2.0	8116

#### Notes:

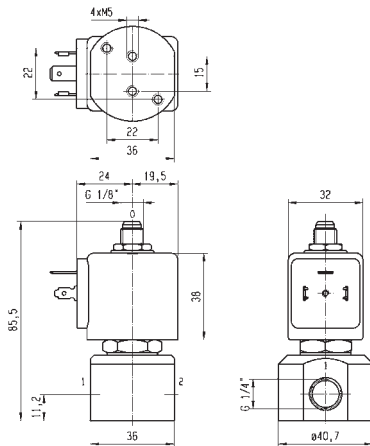
1. Valve only compatible with hydraulic oil and neutral liquids



For this page	Port size	Orifice (mm)	Kv (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	1.5	1.5	4	-30	-10
To	1/4"	2.5	3.5	10	100	50



Drawing 8024



Drawing 8116







## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Brass/Pipe Mounting	Universal	1/4"	6	680	12	75	98
	316L Stainless St./Pipe Mounting	Universal	1/4"	6	680	12	75	100
			3/8"	6	680	12	65	102
	316L Stainless St./Sub-base Mounting	Universal	1/4"	6	680	12	75	104
	Anodized Aluminium/Pipe Mounting	Universal	1/4"	6	680	12	75	106

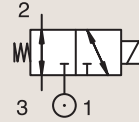
# 3/2

## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING



UNIVERSAL

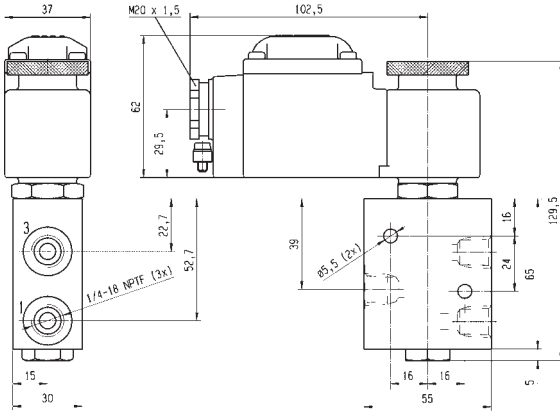
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	AC bar	DC bar	Max(MOPD)	Min		Max	Valve Ref.	Housing Ref.			Coil Ref.	AC W		
1/4" NPT	6	680	0	-	12	-25	65	NBR	U133X0111	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8280
	6	680	0	12	12	-25	65	NBR	U133X0111	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7422
	6	680	0	12	12	-25	65	NBR	U133X0111	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
	6	680	0	12	12	-25	65	NBR	U133X0111	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
	6	680	0	-	12	-25	65	NBR	U133X0111	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7422
	6	680	0	12	12	-25	50	NBR	U133X0111	-	496895	-	-	8	8	9.0/10.1/10.2	8280
	6	680	0	12	12	-25	65	NBR	U133X0131 <sub>1</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
	6	680	0	12	12	-25	65	NBR	U133X0131 <sub>1</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
	6	680	0	12	12	-25	65	NBR	U133X0131 <sub>1</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7422
	6	680	0	12	12	-25	50	NBR	U133X0131 <sub>1</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8280

Notes:

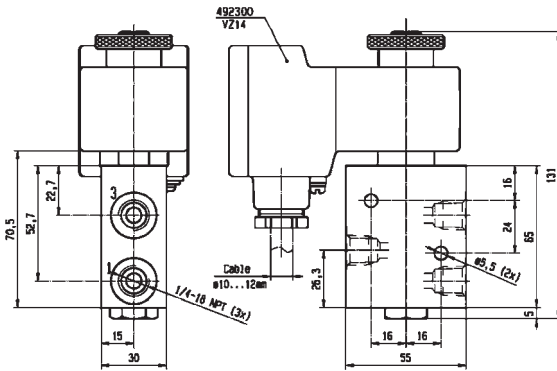
1. DC voltage only (or coil with rectifier). Minimum drop off voltage is 15% of nominal voltage (former DIN 19251)



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	680	12	-25	-25
To	1/4"	6	680	12	65	65



Drawing 8280



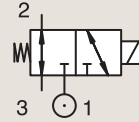
Drawing 7422

# 3/2

## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING



### UNIVERSAL

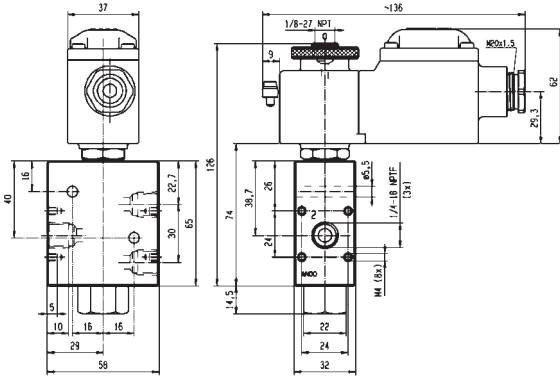
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential Max(MOPD)		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min bar	Max bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
1/4" NPTF	6	680	0	12	12	-25	65	NBR	U133X5152 <sub>123</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U133X5152 <sub>123</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7770
	6	680	0	12	12	-25	65	NBR	U133X5152 <sub>123</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8168
	6	680	0	12	12	-25	50	NBR	U133X5152 <sub>123</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8168
	6	680	0	-	12	-25	65	NBR	U133X5156 <sub>12</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8168
	6	680	0	-	12	-25	65	NBR	U133X5156 <sub>12</sub>	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7770
	6	680	0	12	12	-25	65	NBR	U133X5156 <sub>12</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7770
	6	680	0	12	12	-25	65	NBR	U133X5156 <sub>12</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U133X5156 <sub>12</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8168
	6	680	0	12	12	-25	50	NBR	U133X5156 <sub>12</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U133X5192 <sub>23</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	65	NBR	U133X5192 <sub>23</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	50	NBR	U133X5192 <sub>23</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8169
	6	680	0	-	12	-25	65	NBR	U133X5196 <sub>2</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8169
	6	680	0	-	12	-25	65	NBR	U133X5196 <sub>2</sub>	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	65	NBR	U133X5196 <sub>2</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	65	NBR	U133X5196 <sub>2</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	65	NBR	U133X5196 <sub>2</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
6	680	0	12	12	-25	50	NBR	U133X5196 <sub>2</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8169	

#### Notes:

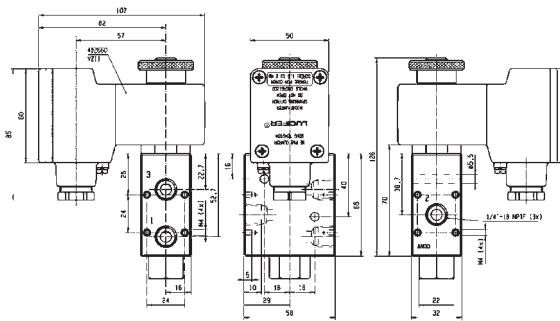
1. With manual override
2. Valve delivered with an individual material traceability certificate (3.1 following EN10204)
3. DC voltage only (or coil with rectifier). Minimum drop off voltage is 15% of nominal voltage (former DIN 19251)



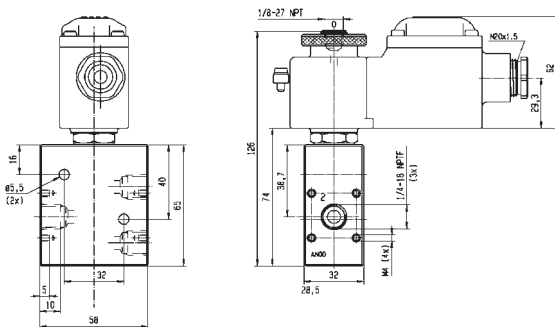
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	680	12	-25	-25
To	1/4"	6	680	12	65	65



Drawing 8168



Drawing 7770



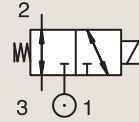
Drawing 8169

# 3/2

## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING

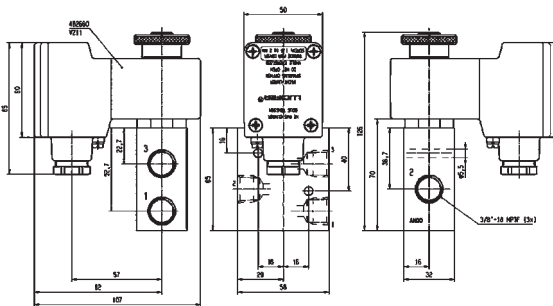


### UNIVERSAL

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
1/4" NPTF	6	680	0	-	12	-25	65	NBR	U133X7156	1	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U133X7156	1	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U133X7156	1	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.2/10.3	8308
	6	680	0	12	12	-25	50	NBR	U133X7156	1	-	496895	-	-	8	8	9.0/10.1/10.2/10.3	8167
	6	680	0	-	12	-25	65	NBR	U133X7196	-	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U133X7196	-	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U133X7196	-	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.2/10.3	8308
	6	680	0	12	12	-25	50	NBR	U133X7196	-	-	496895	-	-	8	8	9.0/10.1/10.2/10.3	8167
3/8" NPTF	6	680	0	-	12	-25	65	NBR	U133X5296	2	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	65	NBR	U133X5296	2	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7669
	6	680	0	12	12	-25	65	NBR	U133X5296	2	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
	6	680	0	-	12	-25	65	NBR	U133X5296	2	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7669
	6	680	0	12	12	-25	65	NBR	U133X5296	2	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8169
	6	680	0	12	12	-25	50	NBR	U133X5296	2	-	496895	-	-	8	8	9.0/10.1/10.2	8169

**Notes:**

- 1. With manual override
- 2. Valve delivered with an individual material traceability certificate (3.1 following EN10204)



Drawing 7669

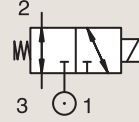


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## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
SUB-BASE MOUNTING



### UNIVERSAL

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4" NPTF	6	680	0	-	12	-25	65	FKM	U133X5195	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8172
	6	680	0	12	12	-25	65	FKM	U133X5195	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	3572
	6	680	0	12	12	-25	65	FKM	U133X5195	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8172
	6	680	0	-	12	-25	65	FKM	U133X5195	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	3572
	6	680	0	12	12	-25	65	FKM	U133X5195	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8172
	6	680	0	12	12	-25	50	FKM	U133X5195	-	496895	-	-	8	8	9.0/10.1/10.2	8172

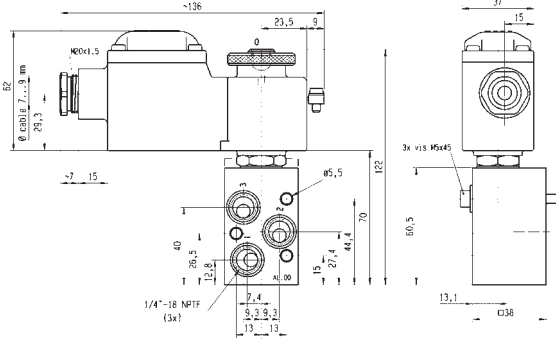
#### Notes:

1. Valve delivered with an individual material traceability certificate (3.1 following EN10204)

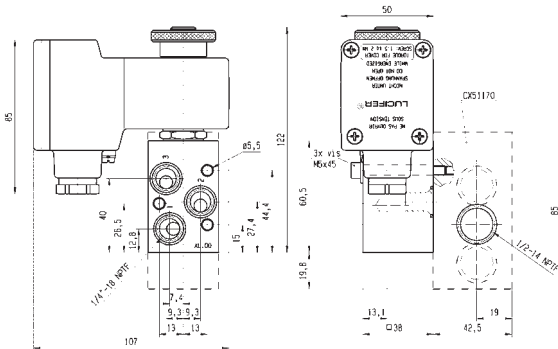




For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	680	12	-25	-25
To	1/4"	6	680	12	65	65



Drawing 8172



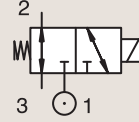
Drawing 3572

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## 3 WAY VALVES DIRECT OPERATED

X SERIES - BRASS, ALUMINIUM, STAINLESS STEEL VALVES FOR PIPE MOUNTING

### ANODIZED ALUMINIUM PIPE MOUNTING

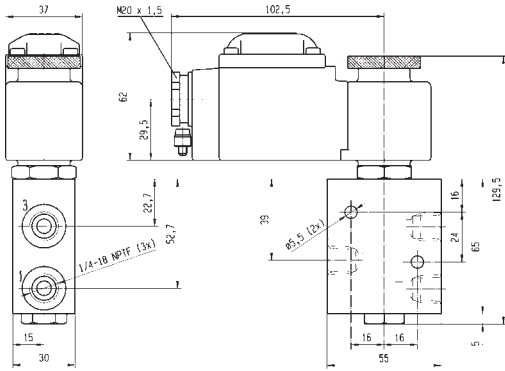


### UNIVERSAL

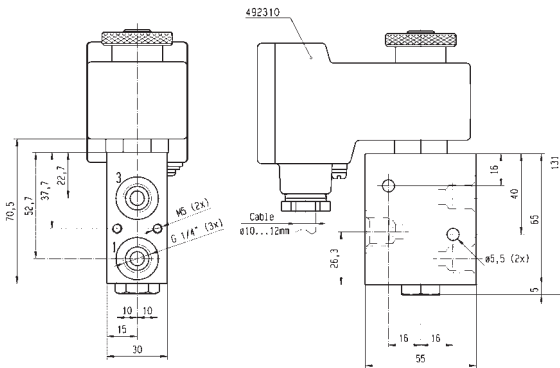
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	AC bar	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
1/4"	BSP	6	680	0	-	12	-25	65	NBR	133X01	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8280
		6	680	0	12	12	-25	75	NBR	133X01	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	6960
		6	680	0	12	12	-25	65	NBR	133X01	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
		6	680	0	12	12	-25	65	NBR	133X01	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
		6	680	0	-	12	-25	65	NBR	133X01	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	6960
		6	680	0	12	12	-25	50	NBR	133X01	-	496895	-	-	8	8	9.0/10.1/10.2	8280
1/4" NPT		6	680	0	-	12	-25	65	NBR	U133X01	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8280
		6	680	0	12	12	-25	65	NBR	U133X01	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
		6	680	0	-	12	-25	65	NBR	U133X01	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	6960
		6	680	0	12	12	-25	65	NBR	U133X01	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	6960
		6	680	0	12	12	-25	65	NBR	U133X01	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8280
		6	680	0	12	12	-25	50	NBR	U133X01	-	496895	-	-	8	8	9.0/10.1/10.2	8280



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	680	12	-25	-25
To	1/4"	6	680	12	75	65



Drawing 8280



Drawing 6960





## 3 WAY VALVES DIRECT OPERATED

X SERIES MANUAL RESET - BRASS, STAINLESS STEEL VALVES FOR PIPE MOUNTING



Air

# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Manual Reset	Brass/Pipe Mounting	Universal	1/4"	6	680	12	65	110
	316L Stainless St./Pipe Mounting	Universal	1/4"	6	680	12	65	110
			3/8"	6	680	12	65	112

# 3/2

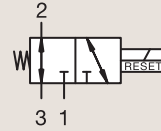
## 3 WAY VALVES DIRECT OPERATED

X SERIES MANUAL RESET - BRASS, STAINLESS STEEL VALVES FOR PIPE MOUNTING

### BRASS

#### PIPE MOUNTING

#### UNIVERSAL- MANUAL RESET

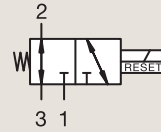


Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4" NPT	6	680	0	-	12	-25	65	NBR	U033X0111	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/12.0	8347
	6	680	0	12	12	-25	65	NBR	U033X0111	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2/12.0	8347
	6	680	0	12	12	-25	65	NBR	U033X0111	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8347
	6	680	0	-	12	-25	65	NBR	U033X0111	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2/12.0	8347
	6	680	0	12	12	-25	65	NBR	U033X0111	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8347
	6	680	0	12	12	-25	65	NBR	U033X0111	-	496895	-	-	8	8	9.0/10.1/10.2/12.0	8347

### 316L STAINLESS ST.

#### PIPE MOUNTING

#### UNIVERSAL- MANUAL RESET



Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4" NPTF	6	680	0	12	12	-25	65	NBR	U033X5152 <sub>12</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	10.1/10.2	7029
	6	680	0	12	12	-25	65	NBR	U033X5152 <sub>12</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U033X5152 <sub>12</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U033X5152 <sub>12</sub>	-	496895	-	-	8	8	10.1/10.2	8168
	6	680	0	12	12	-25	65	NBR	U033X5156 <sub>1</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	10.1/10.2/12.0	7029
	6	680	0	12	12	-25	65	NBR	U033X5156 <sub>1</sub>	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	10.1/10.2/12.0	8168
	6	680	0	12	12	-25	65	NBR	U033X5156 <sub>1</sub>	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	10.1/10.2/12.0	8168
	6	680	0	12	12	-25	65	NBR	U033X5156 <sub>1</sub>	-	496895	-	-	8	8	10.1/10.2/12.0	8168

#### Notes:

1. Valve delivered with an individual material traceability certificate (3.1 following EN10204)
2. DC voltage only (or coil with rectifier). Minimum drop off voltage is 15% of nominal voltage (former DIN 19251)

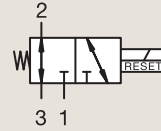


# 3/2

## 3 WAY VALVES DIRECT OPERATED

X SERIES MANUAL RESET - BRASS, STAINLESS STEEL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING

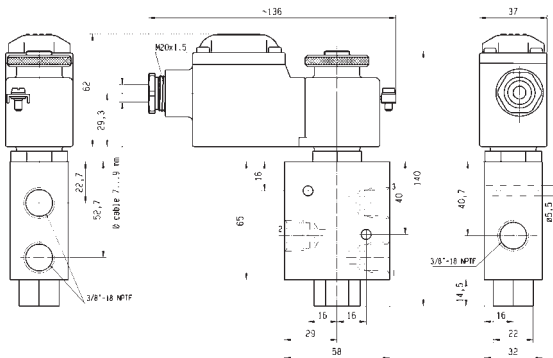


### UNIVERSAL - MANUAL RESET

Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4" NPTF	6	560	0	-	12	-25	65	NBR	U033X5195	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/12.0	8348
	6	560	0	12	12	-25	65	NBR	U033X5195	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2/12.0	8348
	6	560	0	12	12	-25	65	NBR	U033X5195	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8348
	6	560	0	-	12	-25	65	NBR	U033X5195	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2/12.0	8348
	6	560	0	12	12	-25	65	NBR	U033X5195	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8348
	6	560	0	12	12	-25	65	NBR	U033X5195	-	496895	-	-	8	8	9.0/10.1/10.2/12.0	8348
	6	680	0	-	12	-25	65	NBR	U033X7156	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U033X7156	-	497105	1-21	Ex db IIC T4 to T6	8	8	9.0/10.1/10.2/10.3	8308
	6	680	0	12	12	-25	65	NBR	U033X7156	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/10.3	8167
	6	680	0	12	12	-25	65	NBR	U033X7156	-	496895	-	-	8	8	9.0/10.1/10.2/10.3	8167
3/8" NPTF	6	680	0	-	12	-25	65	NBR	U033X5256	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2/12.0	8349
	6	680	0	12	12	-25	65	NBR	U033X5256	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2/12.0	8349
	6	680	0	12	12	-25	65	NBR	U033X5256	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8349
	6	680	0	-	12	-25	65	NBR	U033X5256	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2/12.0	8349
	6	680	0	12	12	-25	65	NBR	U033X5256	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2/12.0	8349
	6	680	0	12	12	-25	65	NBR	U033X5256	-	496895	-	-	8	8	9.0/10.1/10.2/12.0	8349

**Notes:**

1. Valve delivered with an individual material traceability certificate (3.1 following EN10204)

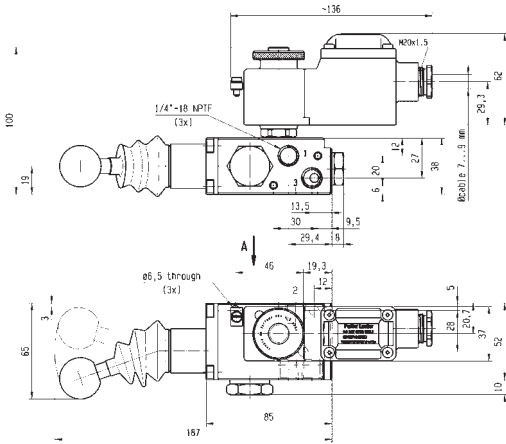


Drawing 8349

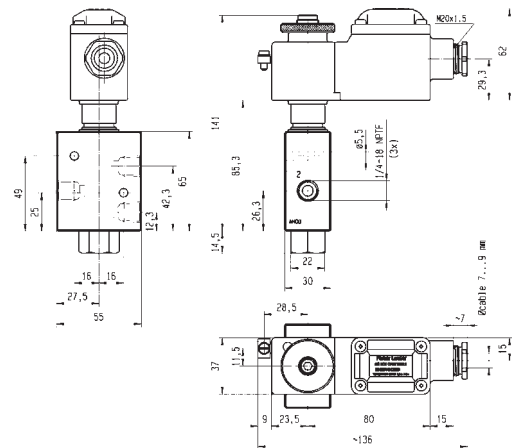




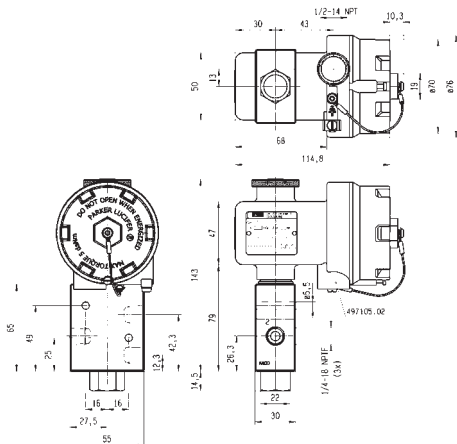
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	560	12	-25	-25
To	3/8"	6	680	12	65	65



Drawing 8348



Drawing 8167



Drawing 8308



# 3 WAY VALVES DIRECT OPERATED

## B04-B14 SERIES - BANJO VALVES



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	Anodized Aluminium/Banjo	Normally Closed	1/8"	1.2	50	10	50	116
			1/4"-1/8"	1.2	50	10	50	116

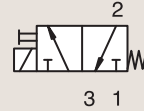
# 3/2

## 3 WAY VALVES DIRECT OPERATED

### B04-B14 SERIES - BANJO VALVES

ANODIZED ALUMINIUM

BANJO



**NORMALLY CLOSED**

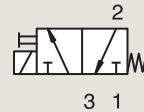
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"	1.2	50	0	10	10	-10	50	NBR	131B14 <sub>12</sub>	-	496131	-	-	3	3	1.2	8227
	1.2	50	0	10	10	-10	50	NBR	131B14 <sub>12</sub>	-	496482	-	-	3	3	1.2	8227
	1.2	50	0	10	10	-10	50	NBR	131B14 <sub>12</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8227

**Notes:**

1. With manual override
2. Valve only compatible with air and neutral gases

ANODIZED ALUMINIUM

BANJO



**NORMALLY CLOSED**

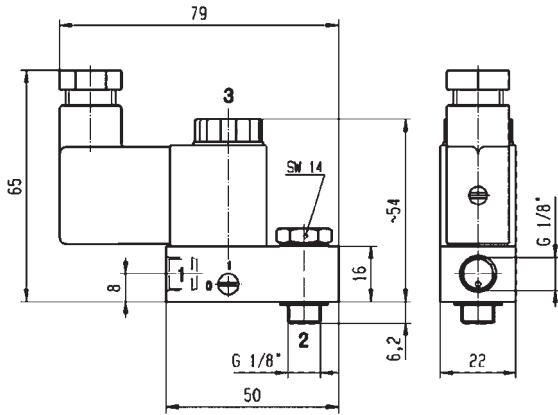
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	1.2	50	0	10	10	-10	50	NBR	131B04 <sub>12</sub>	-	496131	-	-	3	3	1.2	8226
	1.2	50	0	10	10	-10	50	NBR	131B04 <sub>12</sub>	-	496482	-	-	3	3	1.2	8226
	1.2	50	0	10	10	-10	50	NBR	131B04 <sub>12</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8226

**Notes:**

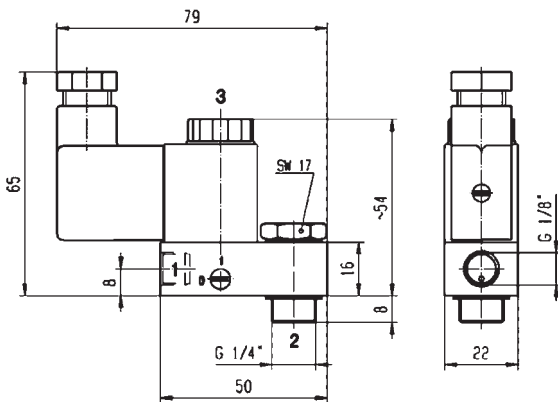
1. With manual override
2. Valve only compatible with air and neutral gases



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	1.2	50	10	-10	-10
To	1/4"-1/8"	1.2	50	10	50	50



Drawing 8227



Drawing 8226



## 3 AND 5 WAY VALVES PILOT OPERATED

F SERIES - BRASS AND ALUMINIUM VALVES FOR FLANGE MOUNTING



**3/2**  
**5/2**

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	Brass/Sub-base Mounting	Normally Closed	14 mm	14	2100	13	50	120
	Anodized Aluminium/Sub-base Mounting	Normally Closed	6 mm	6	630	10	75	122
		Control by Electric Impulse	6 mm	6	630	10	75	122

# 3/2 5/2

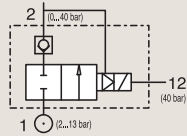
## 3 AND 5 WAY VALVES PILOT OPERATED

F SERIES - BRASS AND ALUMINIUM VALVES FOR FLANGE MOUNTING

BRASS

SUB-BASE MOUNTING

**NORMALLY CLOSED**

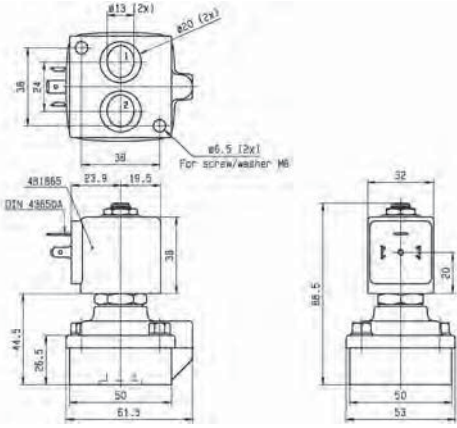


Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
SB	14	2100	2	13	13	-10	50	PUR	421F35	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3520
	14	2100	2	13	13	-10	50	PUR	421F35	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3520
	14	2100	2	13	13	-10	50	PUR	421F35	2995	481865	-	-	8	9	2.1	3520





For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	14 mm	14	2100	13	-10	-10
To	14 mm	14	2100	13	50	50



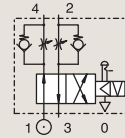
Drawing 3520

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

F SERIES - BRASS AND ALUMINIUM VALVES FOR FLANGE MOUNTING

### ANODIZED ALUMINIUM SUB-BASE MOUNTING



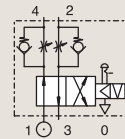
#### NORMALLY CLOSED

Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	Max(MOPD)		Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
				AC bar	DC bar												
SB	6	630	1	10	10	-10	65	FKM	341F34	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/2.1	3287
	6	630	1	10	10	-10	60	FKM	341F34	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/2.1	3287
	6	630	1	10	10	-10	75	FKM	341F34	2995	481865	-	-	8	9	2.0/2.1	3287
	6	630	1	10	10	-10	65	FKM	341F3403	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/2.1	3287
	6	630	1	10	10	-10	60	FKM	341F3403	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/2.1	3287
	6	630	1	10	10	-10	75	FKM	341F3403	2995	481865	-	-	8	9	2.0/2.1	3287
	6	630	1	10	10	-25	65	PUR	341F3440	-	495905	1-21	Ex db mb IIC T4	8	8	2.0/2.1	3287
	6	630	1	10	10	-25	60	PUR	341F3440	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.0/2.1	3287
	6	630	1	10	10	-25	75	PUR	341F3440	2995	481865	-	-	8	9	2.0/2.1	3287

**Notes:**

1. With flow regulator

### ANODIZED ALUMINIUM SUB-BASE MOUNTING



#### CONTROL BY ELECTRIC IMPULSE

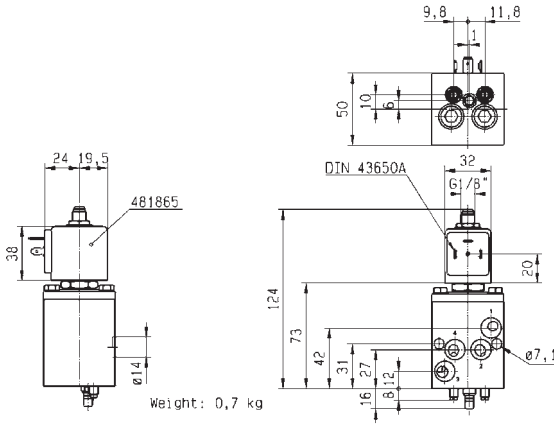
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	Max(MOPD)		Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
				AC bar	DC bar												
SB	6	630	1	10	-	-10	75	FKM	345F34	4269	484990	-	-	11	-	4.0	3287
	6	630	1	-	10	-10	75	FKM	345F34	4269	485400	-	-	-	13	4.0	3287

**Notes:**

1. With flow regulator



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	6 mm	6	630	10	-25	-25
To	6 mm	6	630	10	75	50



Drawing 3287



# 3 AND 5 WAY VALVES PILOT OPERATED

B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING



**3/2**  
**5/2**

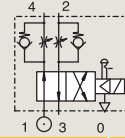
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	Anodized Aluminium/ Pipe Mounting	Normally Closed	1/4"	6 to 8	1100	40	75	126
			1/2"	14	2500	15	75	134
		Normally Open	1/4"	8	1100	40	75	136
			1/2"	14	2500	15	100	138
		Control by Electric Impulse	1/4"	6 to 8	1100	15	75	140
			1/2"	14	2500	15	75	140

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

#### ANODIZED ALUMINIUM PIPE MOUNTING



#### NORMALLY CLOSED

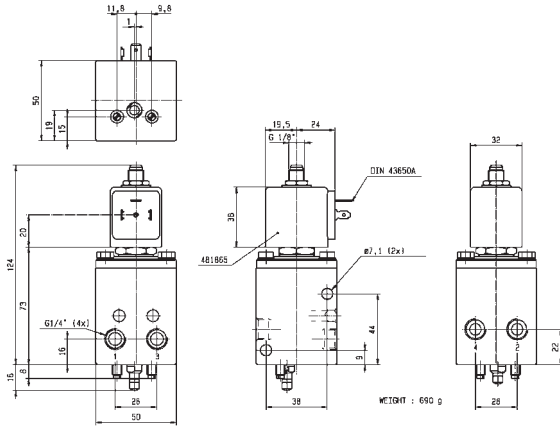
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/4"	6	9	0.54	630	1	10	10	-10	65	NBR	341B34 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3286
	6	9	0.54	630	1	10	10	-10	60	NBR	341B34 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3286
	6	9	0.54	630	1	10	10	-10	75	NBR	341B34 <sub>12</sub>	2995	481865	-	-	8	9	2.1	3286
	6	9	0.54	630	1	10	10	-10	65	NBR	341B3403 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3286
	6	9	0.54	630	1	10	10	-10	60	NBR	341B3403 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3286
	6	9	0.54	630	1	10	10	-10	75	NBR	341B3403 <sub>2</sub>	2995	481865	-	-	8	9	2.1	3286
	6	9	0.54	560	1	-	10	-10	55	NBR	341B3490	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	3561
	6	9	0.54	560	1	-	10	-10	65	NBR	341B3490	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	3561
	6	9	0.54	560	1	10	10	-10	65	NBR	341B3490	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	3561

#### Notes:

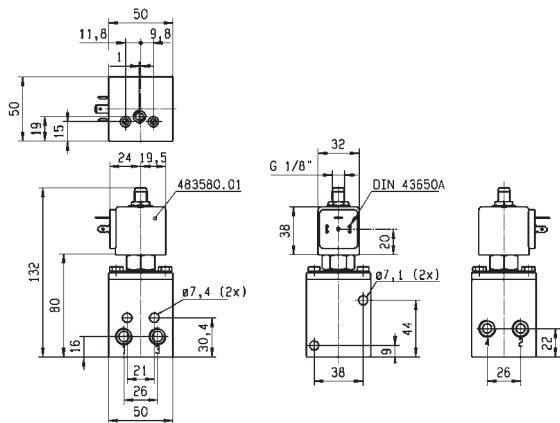
1. With flow regulator
2. With manual override



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	560	10	-10	-10
To	1/4"	6	630	10	75	50



Drawing 3286



Drawing 3561

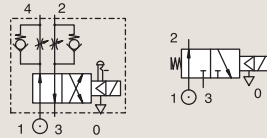
# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

#### ANODIZED ALUMINIUM PIPE MOUNTING

#### NORMALLY CLOSED



Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/4"	6	9	0.54	630	1	10	10	-25	65	PUR	341B3440 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3286
	6	9	0.54	630	1	10	10	-25	60	PUR	341B3440 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3286
	6	9	0.54	630	1	10	10	-25	75	PUR	341B3440 <sub>3</sub>	2995	481865	-	-	8	9	2.1	3286
	6.5	10	0.60	645	1	-	10	-10	55	NBR	331B7490 <sub>1</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	8270
	6.5	10	0.60	645	1	-	10	-10	65	NBR	331B7490 <sub>1</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8270
	6.5	10	0.60	645	1	10	10	-10	65	NBR	331B7490 <sub>1</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8270
	6.5	10	0.60	750	1	10	10	-10	65	NBR	E331B74 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3240
	6.5	10	0.60	750	1	10	10	-10	60	NBR	E331B74 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3240
6.5	10	0.60	750	1	10	10	-10	75	NBR	E331B74 <sub>12</sub>	2995	481865	-	-	8	9	2.1	3240	

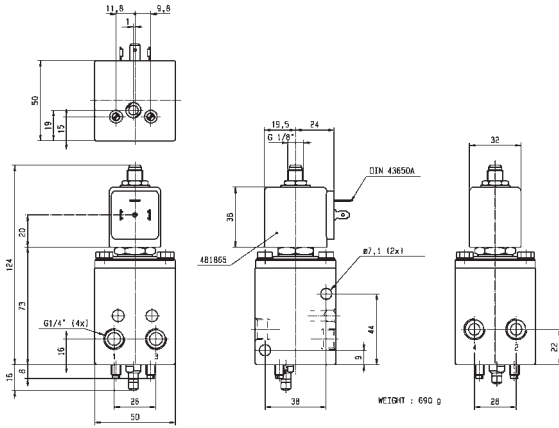
#### Notes:

1. Valve only compatible with air and neutral gases
2. With manual override
3. With flow regulator

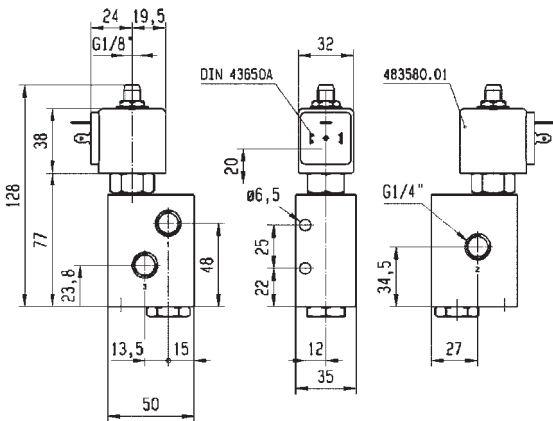




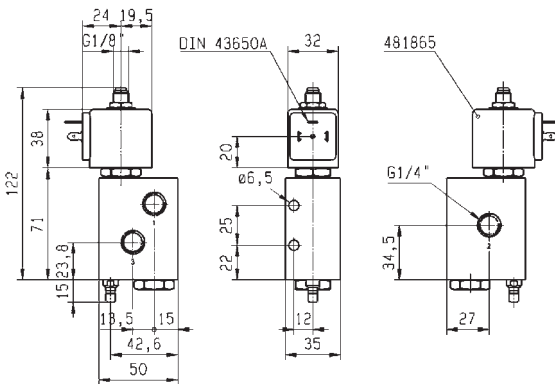
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	630	10	-25	-25
To	1/4"	6.5	750	10	75	50



Drawing 3286



Drawing 8270



Weight: 0,51 kg



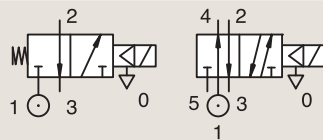
Drawing 3240

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY CLOSED**

Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/4"	8	10	0.60	750	1	40	40	-10	65	NBR	331B02 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8114
	8	10	0.60	750	1	40	40	-10	60	NBR	331B02 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8114
	8	10	0.60	750	1	40	40	-10	75	NBR	331B02 <sub>1</sub>	2995	481865	-	-	8	9	2.1	8114
	8	10	0.60	640	1	40	40	-10	65	NBR	341B02 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8115
	8	10	0.60	640	1	40	40	-10	60	NBR	341B02 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8115
	8	10	0.60	640	1	40	40	-10	75	NBR	341B02 <sub>2</sub>	2995	481865	-	-	8	9	2.1	8115

**Notes:**

- 1. Pilot seat discs in Kel-F (PCTFE); valve with pilot return pipe
- 2. Valve with pilot return pipe on exhaust port

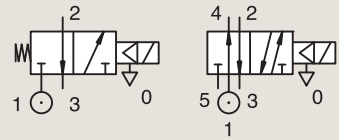


# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY CLOSED**

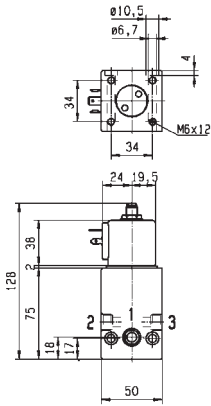
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
											Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C											
1/4"	8	20	1.20	1100	1	15	15	-10	65	FKM	E331B01 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3234
	8	20	1.20	1100	1	15	15	-10	60	FKM	E331B01 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3234
	8	20	1.20	1100	1	15	15	-10	75	FKM	E331B01 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3234
	8	16	0.96	1000	1	15	15	-10	65	NBR	E341B01 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3309
	8	16	0.96	1000	1	15	15	-10	60	NBR	E341B01 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3309
	8	16	0.96	1000	1	15	15	-10	75	NBR	E341B01 <sub>1</sub>	2995	481865	-	-	8	9	2.1	3309

**Notes:**

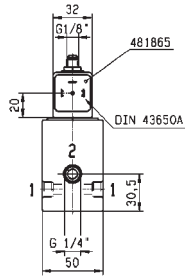
1. Valve only compatible with hydraulic oil and air/neutral gases



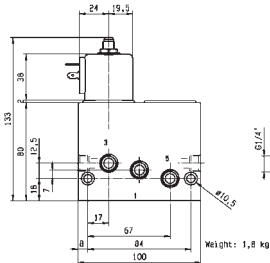
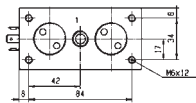
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	1000	15	-10	-10
To	1/4"	8	1100	15	75	50



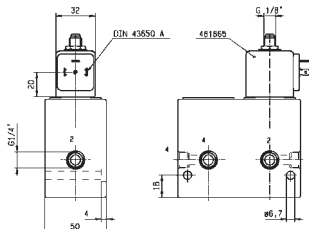
Weight: 0,88 kg



Drawing 3234



Weight: 1,8 kg



Drawing 3309

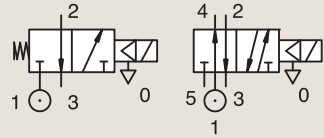


# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### NORMALLY CLOSED

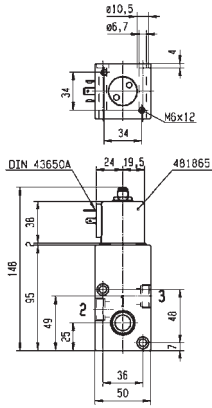
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
1/2"	14	-	-	2500	1	15	15	-10	65	FKM	E331B21	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3238
	14	-	-	2500	1	15	15	-10	60	FKM	E331B21	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3238
	14	-	-	2500	1	15	15	-10	75	FKM	E331B21	2995	481865	-	-	8	9	2.1	3238
	14	-	-	2500	1	15	15	-10	65	NBR	E341B21	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3315
	14	-	-	2500	1	15	15	-10	60	NBR	E341B21	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3315
	14	-	-	2500	1	15	15	-10	75	NBR	E341B21	2995	481865	-	-	8	9	2.1	3315

**Notes:**

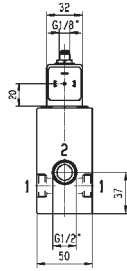
1.Valve only compatible with air and neutral gases



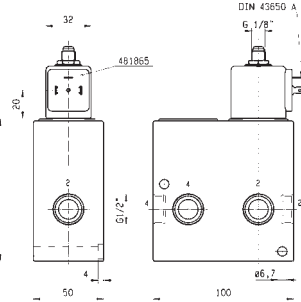
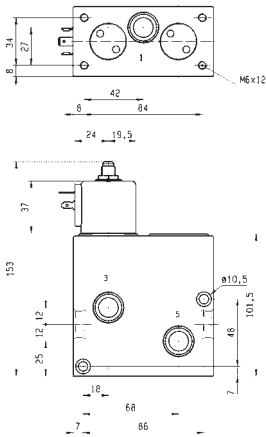
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	14	2500	15	-10	-10
To	1/2"	14	2500	15	75	50



Meiacht: 0,98 ka



Drawing 3238



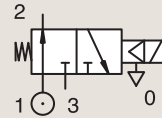
Drawing 3315

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY OPEN**

Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/4"	8	10	0.60	750	1	40	40	-10	65	NBR	332B02 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8114
	8	10	0.60	750	1	40	40	-10	60	NBR	332B02 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8114
	8	10	0.60	750	1	40	40	-10	75	NBR	332B02 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8114
	8	20	1.20	1100	1	15	15	-10	65	FKM	E332B01 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3234
	8	20	1.20	1100	1	15	15	-10	60	FKM	E332B01 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3234
	8	20	1.20	1100	1	15	15	-10	75	FKM	E332B01 <sub>2</sub>	2995	481865	-	-	8	9	2.1	3234

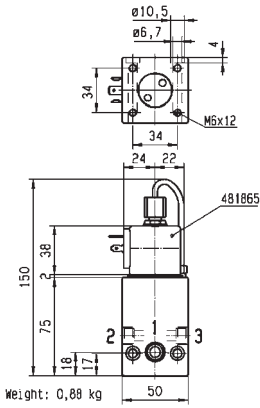
**Notes:**

1. Pilot seat discs in Kel-F (PCTFE); valve with pilot return pipe
2. Valve only compatible with hydraulic oil and air/neutral gases

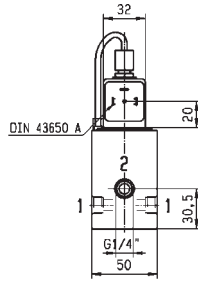




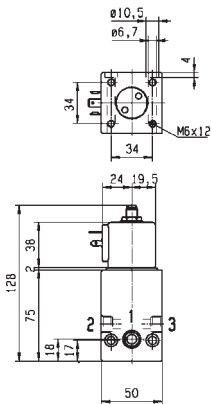
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	750	15	-10	-10
To	1/4"	8	1100	40	75	50



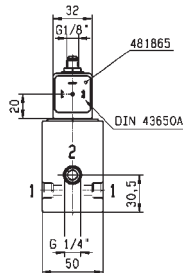
Weight: 0,88 kg



Drawing 8114



Weight: 0,88 kg



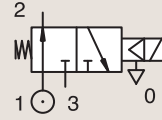
Drawing 3234

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY OPEN**

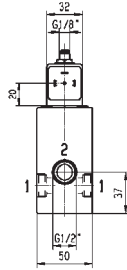
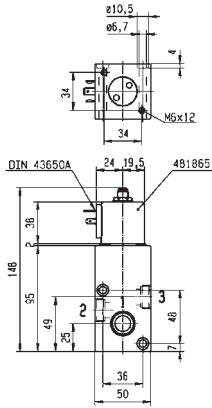
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv	KV	Qn	Min	Max(MOPD)	Min	Max	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	mm	l/min	m³/h	l/min	bar	AC bar	DC bar	°C	°C										
1/2"	14	-	-	2500	1	15	15	-10	65	FKM	E332B21	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3238
	14	-	-	2500	1	15	15	-10	60	FKM	E332B21	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3238
	14	-	-	2500	1	15	15	-10	100	FKM	E332B21	2995	481865	-	-	8	9	2.1	3238

**Notes:**

1. Valve only compatible with air and neutral gases



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	14	2500	15	-10	-10
To	1/2"	14	2500	15	100	50



Weight: 0,98 kg

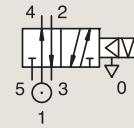
Drawing 3238

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### B SERIES - ALUMINIUM POPPET VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**CONTROL BY ELECTRIC IMPULSE**

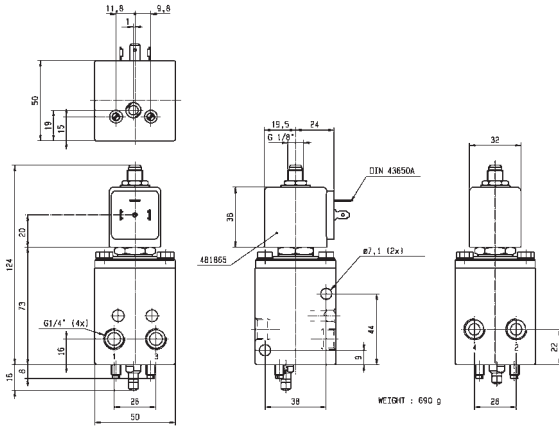
Port size	Orifice Ø	Flow factor			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) DC bar	Min °C	Max °C	Valve Ref.		Housing Ref.	Coil Ref.	AC W			DC W			
BSP	6	9	0.54	630	1	10	-	-10	75	NBR	345B34	4269	484990	-	-	11	-	4.0	3286
	6	9	0.54	630	1	-	10	-10	75	NBR	345B34	4269	485400	-	-	-	13	4.0	3286
1/4"	8	16	0.96	1000	1	15	-	-10	75	NBR	345B04	4269	484990	-	-	11	-	4.0	3309
	8	16	0.96	1000	1	-	15	-10	75	NBR	345B04	4269	485400	-	-	-	13	4.0	3309
1/2"	14	40	2.40	2500	1	15	-	-10	75	NBR	345B24	4269	484990	-	-	11	-	4.0	3315
	14	40	2.40	2500	1	-	15	-10	75	NBR	345B24	4269	485400	-	-	-	13	4.0	3315

**Notes:**

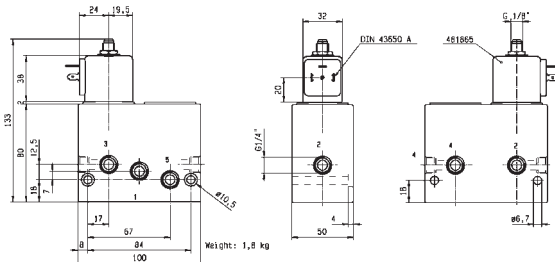
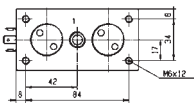
- 1. With flow regulator
- 2. Valve only compatible with air and neutral gases



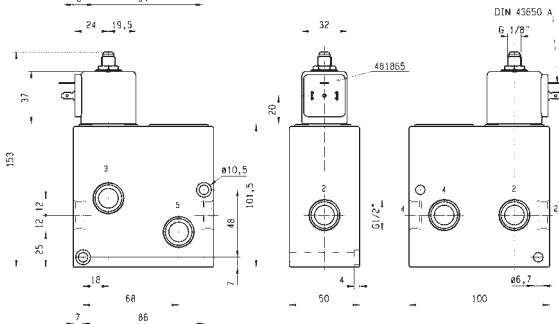
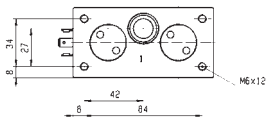
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	630	10	-10	-10
To	1/2"	14	2500	15	75	50



Drawing 3286



Drawing 3309



Drawing 3315





## 3 AND 5 WAY VALVES PILOT OPERATED

P03-P04 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES FOR PIPE MOUNTING



**3/2**  
**5/2**

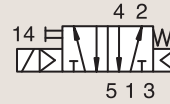
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	Anodized Aluminium/Pipe Mounting	Normally Closed	1/4"	7	1250	10	50	144
			1/2"	12	3000	10	50	146
		Dual Solenoids	1/4"	7	1250	10	50	148
			1/2"	12	3000	10	50	150

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P03-P04 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY CLOSED**

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	341P03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8218
	7	1250	2.5	10	10	-20	50	NBR	341P03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8218
	7	1250	2.5	10	10	-20	50	NBR	341P03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8218
	7	1250	2.5	10	10	-20	50	NBR	341P33 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8219
	7	1250	2.5	10	10	-20	50	NBR	341P33 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8219
	7	1250	2.5	10	10	-20	50	NBR	341P33 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8219

**Notes:**

- 1. With manual override
- 2. Pilot seat in FKM



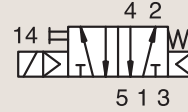


# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P03-P04 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



**NORMALLY CLOSED**

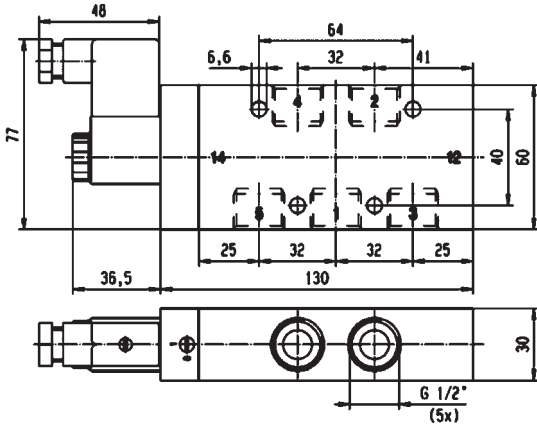
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/2"	12	3000	2.5	10	10	-20	50	NBR	341P04 <sub>1</sub>	-	496131	-	-	3	3	1.2	8220
	12	3000	2.5	10	10	-20	50	NBR	341P04 <sub>1</sub>	-	496482	-	-	3	3	1.2	8220
	12	3000	2.5	10	10	-20	50	NBR	341P04 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8220
	12	3000	2.5	10	10	-20	50	NBR	341P34 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8221
	12	3000	2.5	10	10	-20	50	NBR	341P34 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8221
	12	3000	2.5	10	10	-20	50	NBR	341P34 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8221

**Notes:**

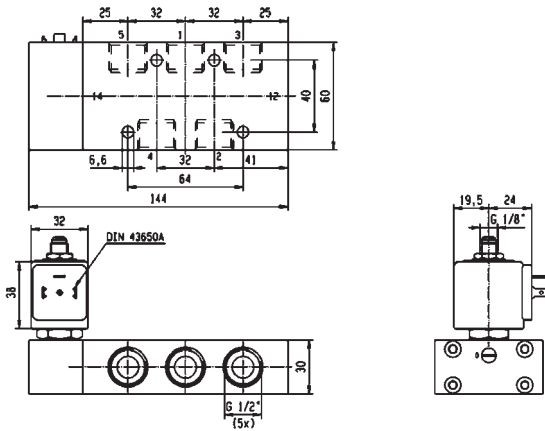
- 1. With manual override
- 2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	12	3000	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8220



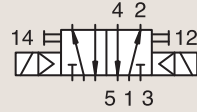
Drawing 8221

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P03-P04 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### DUAL SOLENOIDS

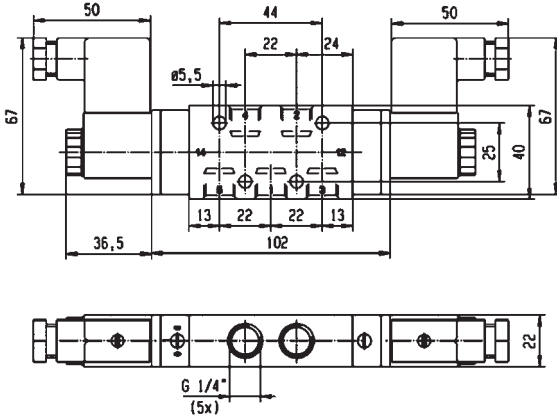
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	347P03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8222
	7	1250	2.5	10	10	-20	50	NBR	347P03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8222
	7	1250	2.5	10	10	-20	50	NBR	347P03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8222
	7	1250	2.5	10	10	-20	50	NBR	347P33 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8223
	7	1250	2.5	10	10	-20	50	NBR	347P33 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8223
	7	1250	2.5	10	10	-20	50	NBR	347P33 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8223

**Notes:**

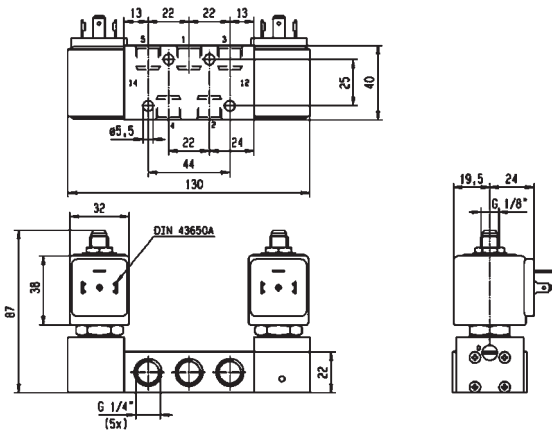
- 1. With manual override
- 2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/4"	7	1250	10	50	50



Drawing 8222



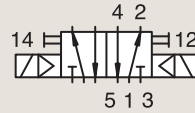
Drawing 8223

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P03-P04 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### DUAL SOLENOIDS

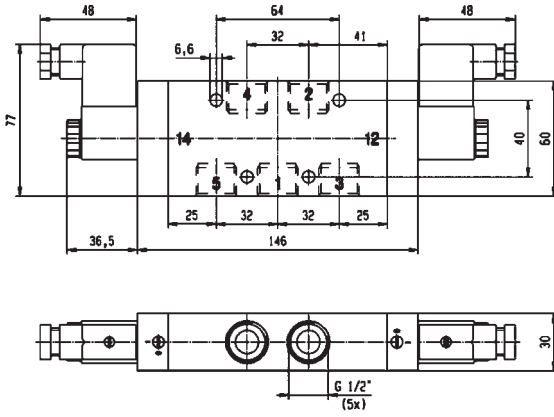
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/2"	12	3000	2.5	10	10	-20	50	NBR	347P04 <sub>1</sub>	-	496131	-	-	3	3	1.2	8224
	12	3000	2.5	10	10	-20	50	NBR	347P04 <sub>1</sub>	-	496482	-	-	3	3	1.2	8224
	12	3000	2.5	10	10	-20	50	NBR	347P04 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8224
	12	3000	2.5	10	10	-20	50	NBR	347P34 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8225
	12	3000	2.5	10	10	-20	50	NBR	347P34 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8225
	12	3000	2.5	10	10	-20	50	NBR	347P34 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8225

**Notes:**

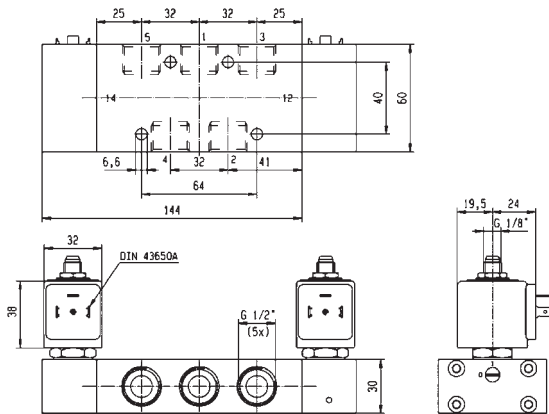
- 1. With manual override
- 2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	12	3000	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8224



Drawing 8225







# 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING



**3/2**  
**5/2**

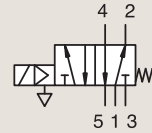
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	316L Stainless St./Pipe Mounting	Normally Closed	3/8"	8	1400	10	80	154
		Dual Solenoids	3/8"	8	1400	10	80	156
		Air operated - spring return	3/8"	8	1400	10	80	154
	Anodized Aluminium/Pipe Mounting	Normally Closed	1/8"	4 to 15	600	10	80	158
			1/4"	8	1400	10	80	162
		Control by Electric Impulse	1/8"	4	600	10	80	164
		Dual Solenoids	1/8"	4	600	10	80	164
			1/4"	8	1400	10	80	168

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING



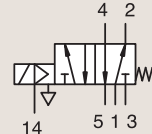
**NORMALLY CLOSED**

Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential Max(MOPD)			Fluid Temp. °C		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
3/8" -1/4" NPT	8	1400	2	10	10	-25	80	NBR	U341P0250 <sub>1</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7558
	8	1400	2	10	10	-25	80	NBR	U341P0250 <sub>1</sub>	8993	488980	-	-	2	2.5	1.1	7558
	8	1400	2	10	10	-25	65	NBR	U341P3250 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8350
	8	1400	2	10	10	-25	60	NBR	U341P3250 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8350
	8	1400	2	10	10	-25	80	NBR	U341P3250 <sub>2</sub>	2995	481865	-	-	8	9	2.1	8350
	8	1400	2	-	10	-25	75	NBR	U341P3295 <sub>1</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1	8350
	8	1400	2	10	10	-25	65	NBR	U341P3295 <sub>1</sub>	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1	8350
	8	1400	2	10	10	-25	75	NBR	U341P3295 <sub>1</sub>	-	496895	-	-	8	8	9.0/10.1	8350

**Notes:**

1. With manual override
2. Pilot seat in FKM

316L STAINLESS ST.  
PIPE MOUNTING



**AIR OPERATED - SPRING RETURN - W1**

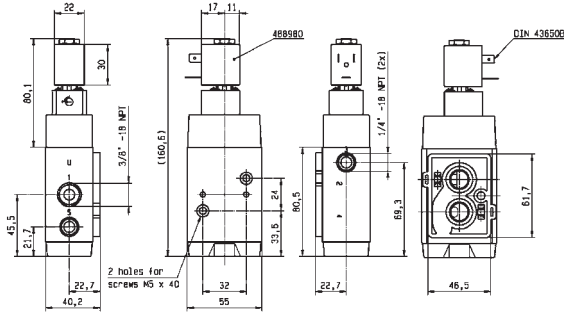
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp. °C		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
3/8" 1/4" NPT	8	1400	2	10	10	-25	65	NBR	U441P3250 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7565
	8	1400	2	10	10	-25	60	NBR	U441P3250 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7565
	8	1400	2	10	10	-25	80	NBR	U441P3250 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7565

**Notes:**

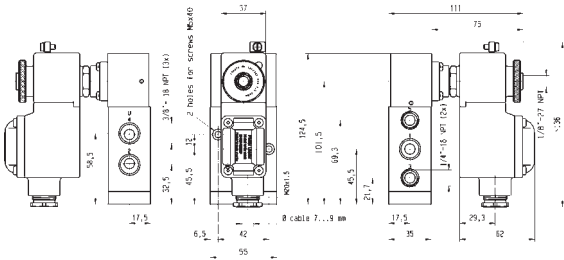
1. Pilot seat in FKM
2. Valve with external pilot pressure minimum 4 bar



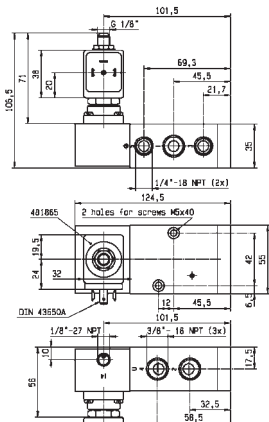
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"	8	1400	10	-25	-25
To	3/8"	8	1400	10	80	50



Drawing 7558



Drawing 8350



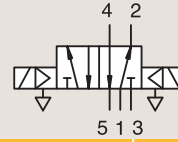
Drawing 7565

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

316L STAINLESS ST.  
PIPE MOUNTING



### DUAL SOLENOIDS

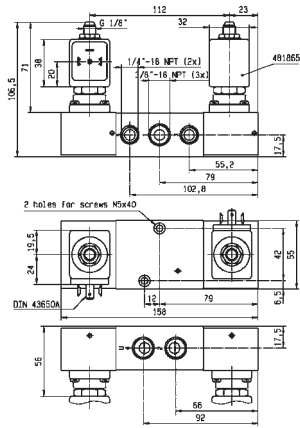
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min bar	Max(MOPD) AC bar DC bar		Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
3/8"- 1/4" NPT	8	1400	2	10	10	-25	65	NBR	U347P3250 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7563
	8	1400	2	10	10	-25	60	NBR	U347P3250 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7563
	8	1400	2	10	10	-25	80	NBR	U347P3250 <sub>2</sub>	2995	481865	-	-	8	9	2.1	7563
	8	1400	2	-	10	-25	75	NBR	U347P3295 <sub>12</sub>	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8351
	8	1400	2	10	10	-25	75	NBR	U347P3295 <sub>12</sub>	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7564
	8	1400	2	10	10	-25	65	NBR	U347P3295 <sub>12</sub>	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8351
	8	1400	2	-	10	-25	75	NBR	U347P3295 <sub>12</sub>	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7564
	8	1400	2	10	10	-25	65	NBR	U347P3295 <sub>12</sub>	-	496560	1-21	Ex db mb IIC T4	8	8	9.0/10.1/10.2	8351
8	1400	2	10	10	-25	75	NBR	U347P3295 <sub>12</sub>	-	496895	-	-	8	8	9.0/10.1/10.2	8351	

**Notes:**

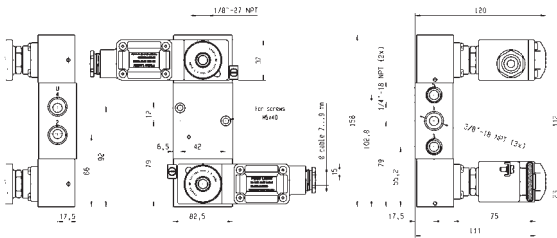
- 1. With manual override
- 2. Pilot seat in FKM



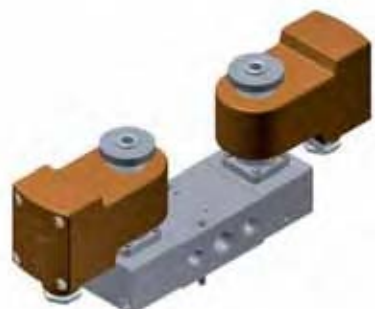
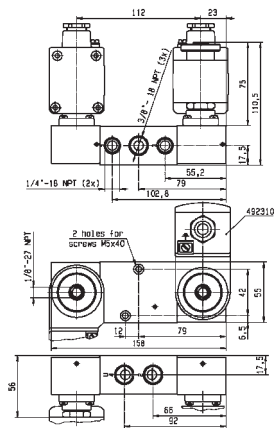
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"	8	1400	10	-25	-25
To	3/8"	8	1400	10	80	50



Drawing 7563



Drawing 8351



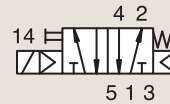
Drawing 7564

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### NORMALLY CLOSED

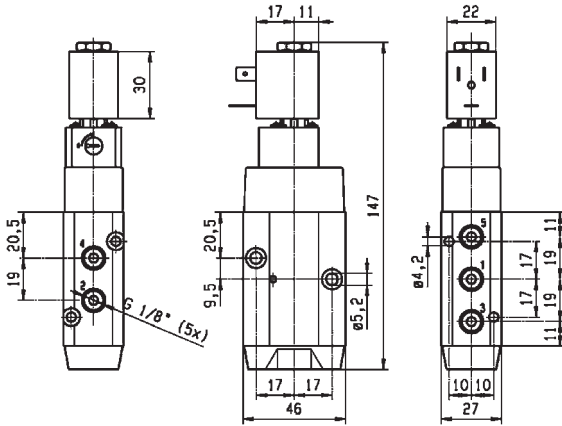
Port size	Orifice Ø	Flow factor	Operating Pressure Differential		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max(MOPD)	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"	4	600	2	10	10	-25	50	NBR	341P01 <sub>12</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7302
	4	600	2	10	10	-25	80	NBR	341P01 <sub>12</sub>	8993	488980	-	-	2	2.5	1.1	7302
	4	600	2	10	10	-25	65	NBR	341P21 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7296
	4	600	2	10	10	-25	60	NBR	341P21 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7296
	4	600	2	10	10	-25	80	NBR	341P21 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7296
	4	600	2	10	10	-40	65	NBR	341P2108 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7296
	4	600	2	10	10	-40	60	NBR	341P2108 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7296
	4	600	2	10	10	-40	65	NBR	341P2108 <sub>3</sub>	2995	481865	-	-	8	9	2.1	7296

**Notes:**

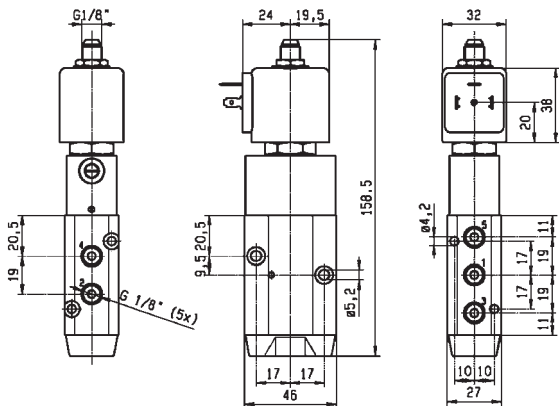
- 1. With manual override
- 2. Pilot seat in FKM
- 3. Pilot seat in PUR



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	4	600	10	-40	-40
To	1/8"	4	600	10	80	50



Drawing 7302



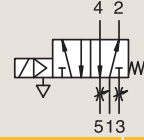
Drawing 7296

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### NORMALLY CLOSED

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"	4	600	2	-	10	-20	65	NBR	341P2197 <sup>12</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8027
	4	600	2	10	10	-20	65	NBR	341P2197 <sup>12</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8027
	4	600	2	-	10	-20	65	NBR	341P2197 <sup>12</sup>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/7.0/8.0	8027
	4	600	2	-	10	-20	65	NBR	341P2197 <sup>12</sup>	2995	482740	-	-	-	1.6	6.0/7.0/8.0	8027
	4	600	2	-	10	-10	55	NBR	341P2190	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7351
	4	600	2	-	10	-10	65	NBR	341P2190	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7351
	4	600	2	10	10	-10	65	NBR	341P2190	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7351

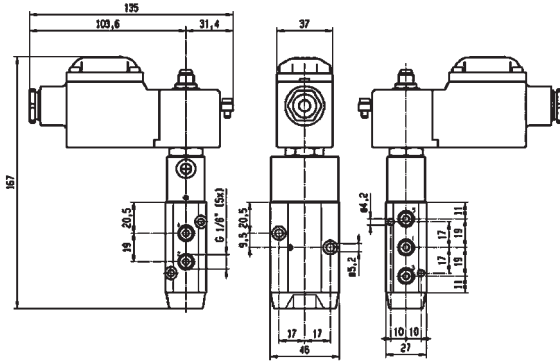
**Notes:**

- 1. With manual override
- 2. Pilot seat in PUR

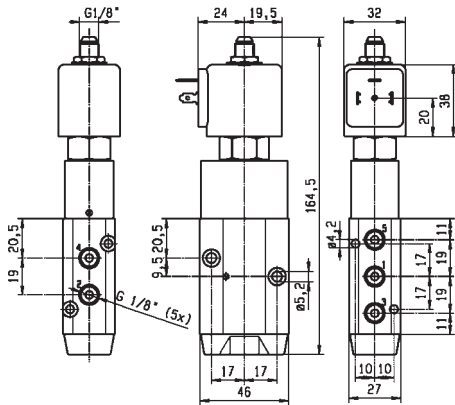




For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	4	600	10	-20	-25
To	1/8"	15	600	10	65	65



Drawing 8027



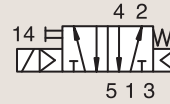
Drawing 7351

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

### P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING

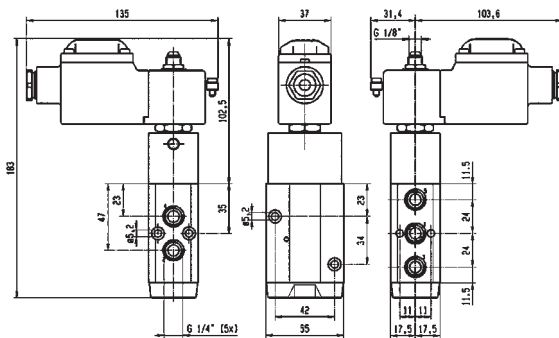


**NORMALLY CLOSED**

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	8	1400	2	10	10	-25	50	NBR	341P02 <sub>1</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7314
	8	1400	2	10	10	-25	80	NBR	341P02 <sub>1</sub>	8993	488980	-	-	2	2.5	1.1	7314
	8	1400	2	10	10	-25	65	NBR	341P22 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8030
	8	1400	2	10	10	-25	60	NBR	341P22 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7319
	8	1400	2	10	10	-25	80	NBR	341P22 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7319
	8	1400	2	-	10	-25	55	NBR	341P2290	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7352
	8	1400	2	-	10	-25	65	NBR	341P2290	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7352
	8	1400	2	10	10	-25	65	NBR	341P2290	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7352
	8	1400	2	-	10	-20	65	NBR	341P2297 <sub>13</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8030
	8	1400	2	10	10	-20	65	NBR	341P2297 <sub>13</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8030
8	1400	2	-	10	-20	65	NBR	341P2297 <sub>13</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	7319	
8	1400	2	-	10	-20	80	NBR	341P2297 <sub>13</sub>	2995	482740	-	-	-	1.6	6.0/8.0	7319	

**Notes:**

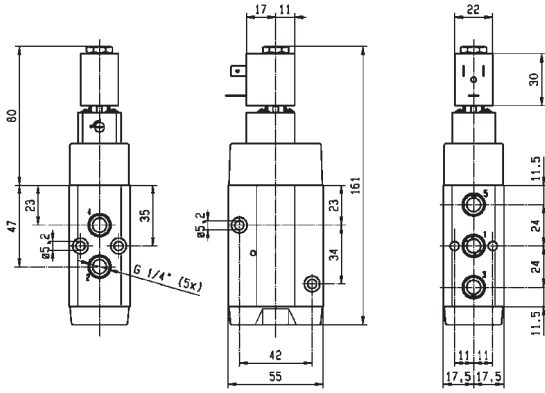
1. With manual override
2. Pilot seat in FKM
3. Pilot seat in PUR



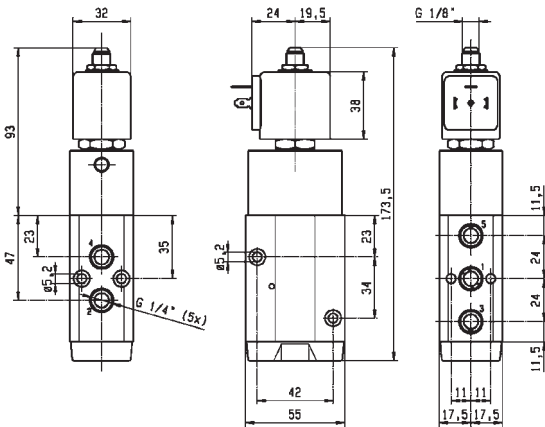
Drawing 8030



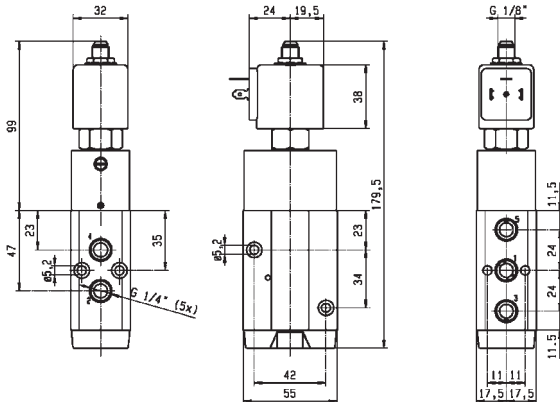
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	1400	10	-25	-25
To	1/4"	8	1400	10	80	50



Drawing 7314



Drawing 7319



Drawing 7352

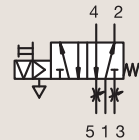
# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING

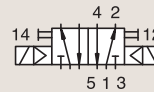
CONTROL BY ELECTRIC IMPULSE



Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/8"	4	600	2	10	-	-25	80	NBR	345P21	4269	484990	-	-	11	-	4.0	8123
	4	600	2	-	10	-25	80	NBR	345P21	4269	485400	-	-	-	13	4.0	8123

ANODIZED ALUMINIUM  
PIPE MOUNTING

DUAL SOLENOIDS



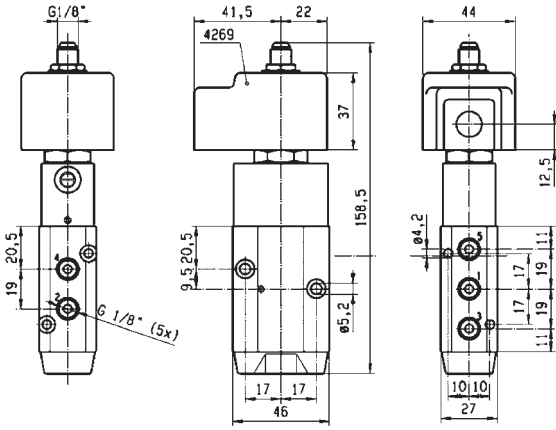
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
1/8"	4	400	2	10	10	-25	50	NBR	347P01 <sub>12</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7306
	4	400	2	10	10	-25	80	NBR	347P01 <sub>12</sub>	8993	488980	-	-	2	2.5	1.1	7306
	4	400	2	10	10	-25	65	NBR	347P21 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7298
	4	400	2	10	10	-25	60	NBR	347P21 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7298
	4	400	2	10	10	-25	80	NBR	347P21 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7298

**Notes:**

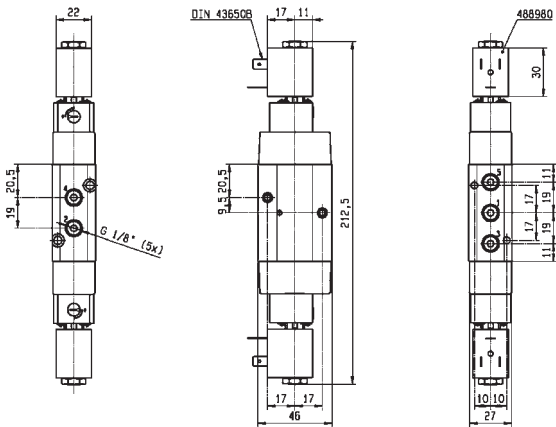
- 1. With manual override
- 2. Pilot seat in FKM



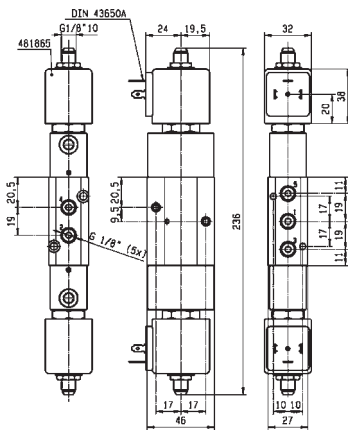
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	4	400	10	-25	-25
To	1/8"	4	600	10	80	50



Drawing 8123



Drawing 7306



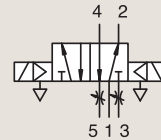
Drawing 7298

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### DUAL SOLENOIDS

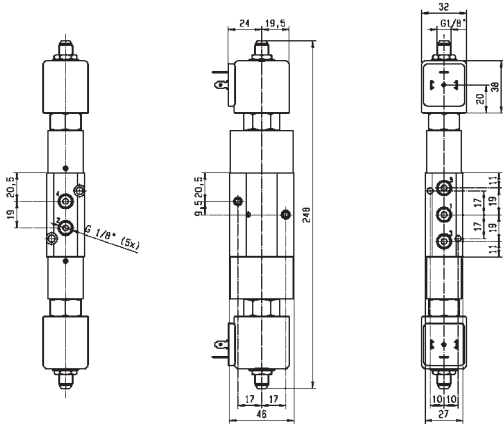
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"	4	400	2	-	10	-25	55	NBR	347P2190 <sub>2</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7353
	4	400	2	-	10	-25	65	NBR	347P2190 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7353
	4	400	2	10	10	-25	65	NBR	347P2190 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7353
	4	400	2	-	10	-25	65	NBR	347P2197 <sub>1</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8028
	4	400	2	10	10	-25	65	NBR	347P2197 <sub>1</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8028
	4	400	2	-	10	-25	65	NBR	347P2197 <sub>1</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	8028
	4	400	2	-	10	-25	65	NBR	347P2197 <sub>1</sub>	2995	482740	-	-	-	1.6	6.0/8.0	8028

**Notes:**

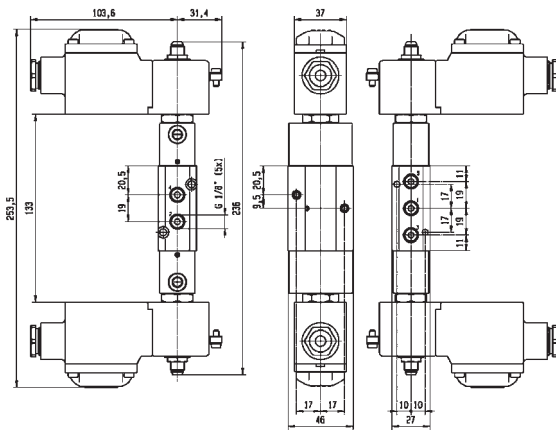
1. With manual override
2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"	4	400	10	-25	-25
To	1/8"	4	400	10	65	50



Drawing 7353



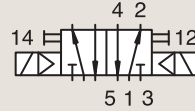
Drawing 8028

# 3/2 5/2

## 3 AND 5 WAY VALVES PILOT OPERATED

P01-P02 SERIES - SPOOL VALVES FOR PIPE MOUNTING

ANODIZED ALUMINIUM  
PIPE MOUNTING



### DUAL SOLENOIDS

Port size	Orifice Ø	Flow factor	Operating Pressure Differential Max(MOPD)		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	8	1400	2	10	10	-25	50	NBR	347P02 <sub>1</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7316
	8	1400	2	10	10	-25	80	NBR	347P02 <sub>1</sub>	8993	488980	-	-	2	2.5	1.1	7316
	8	1400	2	10	10	-25	65	NBR	347P22 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7321
	8	1400	2	10	10	-25	60	NBR	347P22 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7321
	8	1400	2	10	10	-25	80	NBR	347P22 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7321

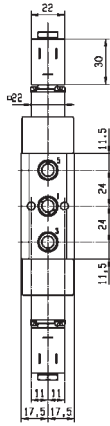
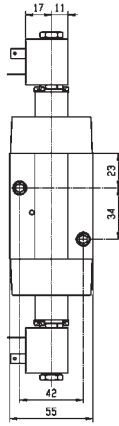
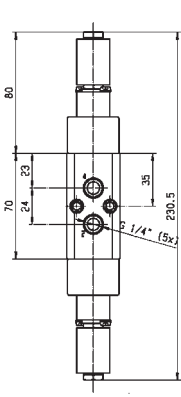
**Notes:**

- 1. With manual override
- 2. Pilot seat in FKM

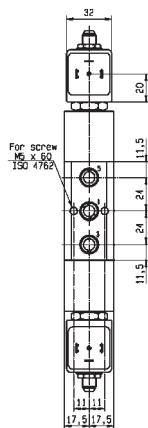
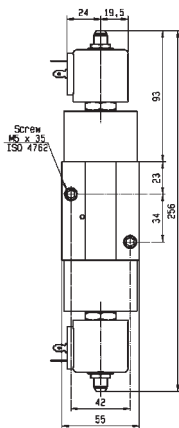
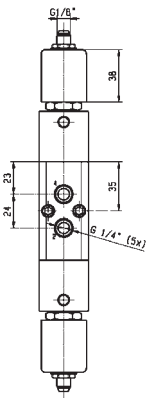




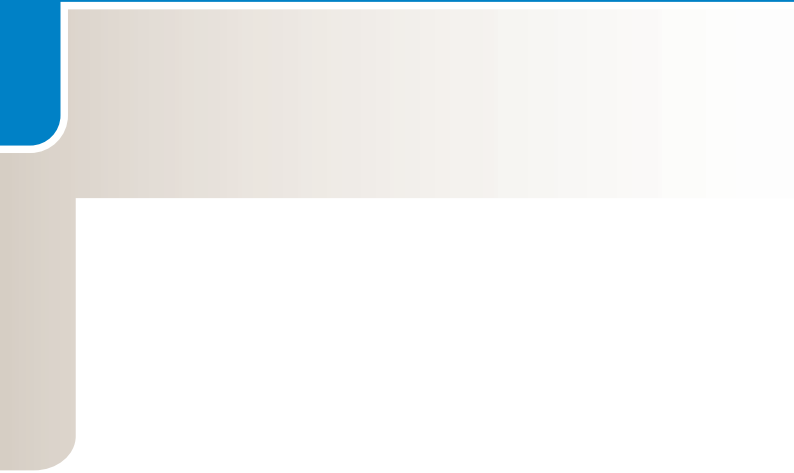
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	1400	10	-25	-25
To	1/4"	8	1400	10	80	50



Drawing 7316



Drawing 7321





## 3 AND 5 WAY VALVES PILOT OPERATED

U331BS SERIES - HIGH FLOW BRASS POPPET VALVES FOR PIPE MOUNTING



# 3/2

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	Brass/Pipe Mounting	Normally Closed	1/2"	14	2500	15	65	172

# 3/2

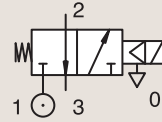
## 3 AND 5 WAY VALVES PILOT OPERATED

U331BS SERIES - HIGH FLOW BRASS POPPET VALVES FOR PIPE MOUNTING

BRASS

PIPE MOUNTING

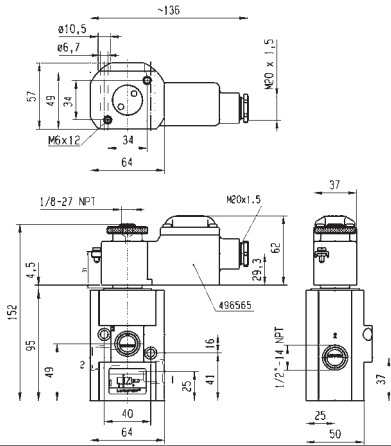
**NORMALLY CLOSED**



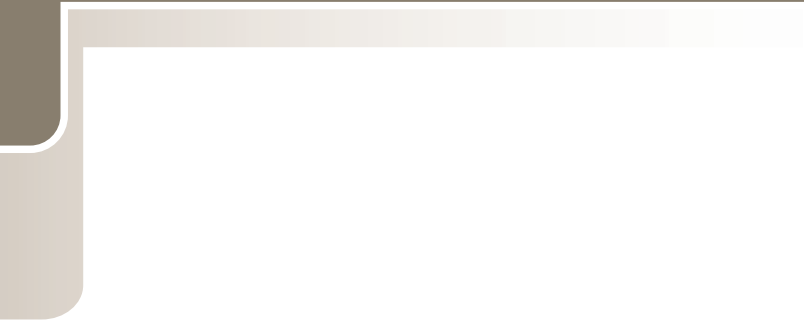
Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max(MOPD)	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
1/2" NPTF	14	2500	2	-	15	-30	65	NBR	U331BS9369	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8316
	14	2500	2	15	15	-30	65	NBR	U331BS9369	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8316
	14	2500	2	-	15	-30	65	NBR	U331BS9369	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	8316
	14	2500	2	15	15	-30	65	NBR	U331BS9369	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	8316
	14	2500	2	15	15	-30	65	NBR	U331BS9369	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8316
	14	2500	2	15	15	-30	65	NBR	U331BS9369	-	496895	-	-	8	8	9.0/10.1/10.2	8316



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	14	2500	15	-30	-30
To	1/2"	14	2500	15	65	65



Drawing 8316





## 3 AND 5 WAY VALVES NAMUR DIRECT OPERATED

X SERIES - ALUMINIUM, STAINLESS STEEL VALVES WITH NAMUR INTERFACE



**3/2**  
**5/2**

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Direct Operated	316L Stainless St./NAMUR	Normally Closed	3/8"	6	680	12	65	176
	Anodized Aluminium/NAMUR	Normally Closed	1/4"	6	680	12	65	178

# 3/2 5/2

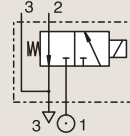
## 3 AND 5 WAY VALVES NAMUR DIRECT OPERATED

X SERIES - ALUMINIUM, STAINLESS STEEL VALVES WITH NAMUR INTERFACE

316L STAINLESS ST.

NAMUR

**NORMALLY CLOSED**



Port size	Orifice Ø mm	Flow factor Qn l/min	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
3/8" NPT	6	680	0	-	12	-25	65	NBR	U131X1201	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8352
	6	680	0	12	12	-25	65	NBR	U131X1201	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7668
	6	680	0	12	12	-25	65	NBR	U131X1201	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8352
	6	680	0	-	12	-25	65	NBR	U131X1201	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7668
	6	680	0	12	12	-25	65	NBR	U131X1201	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8352
	6	680	0	12	12	-25	50	NBR	U131X1201	-	496895	-	-	8	8	9.0/10.1/10.2	7668

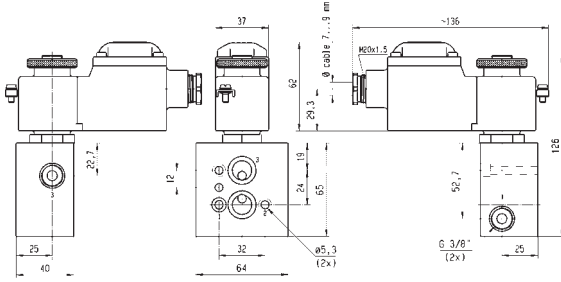
**Notes:**

1.Valve delivered with an individual material traceability certificate (3.1 following EN10204)

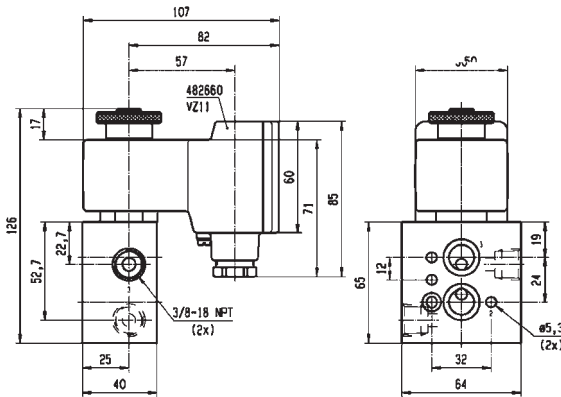




For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"	6	680	12	-25	-25
To	3/8"	6	680	12	65	65



Drawing 8352



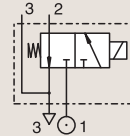
Drawing 7668

# 3/2 5/2

## 3 AND 5 WAY VALVES NAMUR DIRECT OPERATED

X SERIES - ALUMINIUM, STAINLESS STEEL VALVES WITH NAMUR INTERFACE

### ANODIZED ALUMINIUM NAMUR

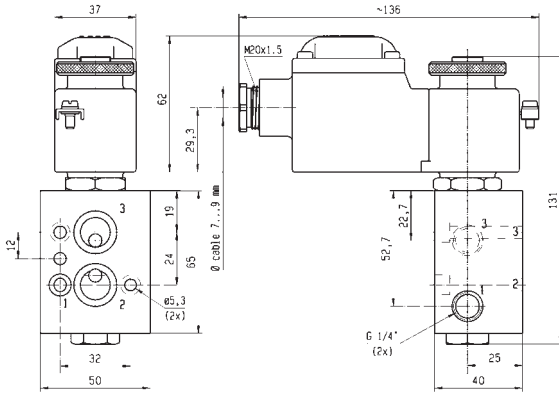


### NORMALLY CLOSED

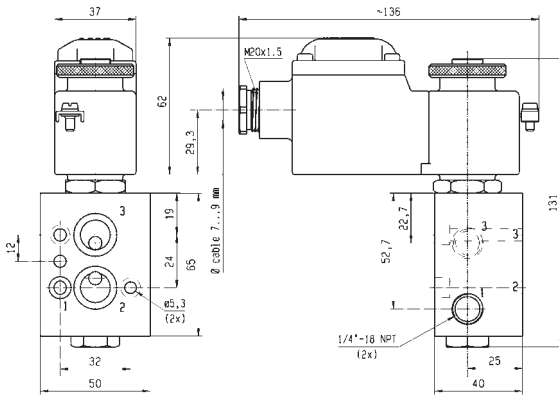
Port size	Orifice Ø	Flow factor	Operating Pressure Differential		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max(MOPD)	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	6	680	0	-	12	-25	65	NBR	131X1101	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	65	NBR	131X1101	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	75	NBR	131X1101	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	8346
	6	680	0	-	12	-25	75	NBR	131X1101	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	65	NBR	131X1101	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	50	NBR	131X1101	-	496895	-	-	8	8	9.0/10.1/10.2	8346
	6	680	0	-	12	-25	65	NBR	131X1131	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	65	NBR	131X1131	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	65	NBR	131X1131	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	65	NBR	131X1131	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	8346
	6	680	0	-	12	-25	65	NBR	131X1131	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	8346
	6	680	0	12	12	-25	50	NBR	131X1131	-	496895	-	-	8	8	9.0/10.1/10.2	8346
1/4" NPT	6	680	0	-	12	-25	55	NBR	U131X1101	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1/10.2	8353
	6	680	0	12	12	-25	65	NBR	U131X1101	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8353
	6	680	0	12	12	-25	65	NBR	U131X1101	-	496700	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1/10.2	8353
	6	680	0	12	12	-25	65	NBR	U131X1101	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1/10.2	7336
	6	680	0	-	12	-25	65	NBR	U131X1101	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1/10.2	7336
	6	680	0	12	12	-25	50	NBR	U131X1101	-	496895	-	-	8	8	9.0/10.1/10.2	8353



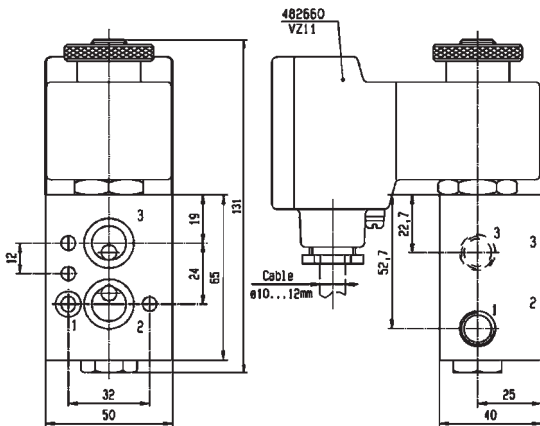
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	6	680	12	-25	-25
To	1/4"	6	680	12	65	65



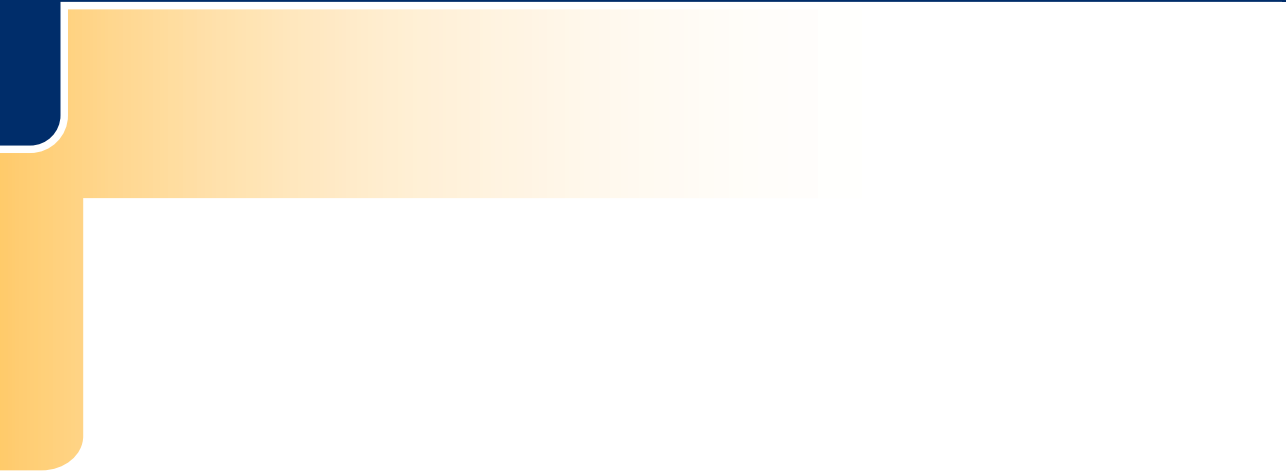
Drawing 8346



Drawing 8353



Drawing 7336





# 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE



**3/2**  
**5/2**  
**5/3**

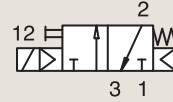
Way	Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves	
3/2	Pilot Operated	Anodized Aluminium/NAMUR	Solenoid operated - spring return	1/2"	12	3000	10	65	<b>182</b>	
				1/4"	7	1250	10	65	<b>182</b>	
	External Operated	Anodized Aluminium/NAMUR	Air operated - spring return	1/2"	12	3000	10	50	<b>186</b>	
				1/4"	7	1250	10	50	<b>186</b>	
3/2 - 5/2	Pilot Operated	Anodized Aluminium/NAMUR	Solenoid operated - spring return	1/4"	7	1250	10	65	<b>188</b>	
5/2	Pilot Operated	Anodized Aluminium/NAMUR	Solenoid operated - spring return	1/2"	12	3000	10	65	<b>192</b>	
				1/4"	7	1250	10	65	<b>192</b>	
				Dual Solenoids	1/2"	12	3000	10	120	<b>196</b>
					1/4"	7	1250	10	50	<b>194</b>
	External Operated	Anodized Aluminium/NAMUR	Air operated - spring return	1/2"	12	3000	10	50	<b>198</b>	
				1/4"	7	1250	10	50	<b>198</b>	
				Air operated and return	1/4"	7	1250	10	50	<b>198</b>
					1/4"	7	1250	10	50	<b>198</b>
5/3	Pilot Operated	Anodized Aluminium/NAMUR	W1 closed center position	1/4"	7	1250	10	120	<b>200</b>	
			W3 exhausted in center position	1/4"	7	1250	10	50	<b>202</b>	

# 3/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### SOLENOID OPERATED - SPRING RETURN

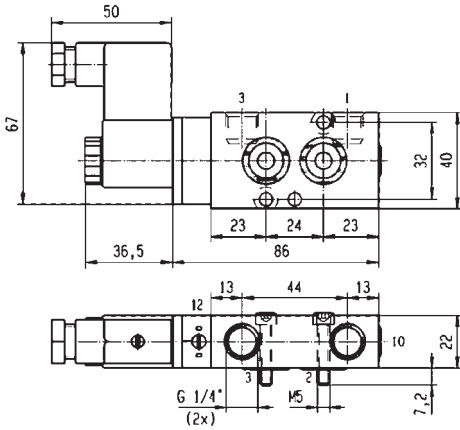
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	331N03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8056
	7	1250	2.5	10	10	-20	50	NBR	331N03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8056
	7	1250	2.5	10	10	-20	50	NBR	331N03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8056
1/2"	12	3000	2	10	10	-20	50	NBR	331N04 <sub>1</sub>	-	496131	-	-	3	3	1.2	8060
	12	3000	2	10	10	-20	50	NBR	331N04 <sub>1</sub>	-	496482	-	-	3	3	1.2	8060
	12	3000	2	10	10	-20	50	NBR	331N04 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8060
	12	3000	2	10	10	-20	50	NBR	331N0402	-	496131	-	-	3	3	1.2	8251
	12	3000	2	10	10	-20	50	NBR	331N0402	-	496482	-	-	3	3	1.2	8251
	12	3000	2	10	10	-20	50	NBR	331N0402	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8251

#### Notes:

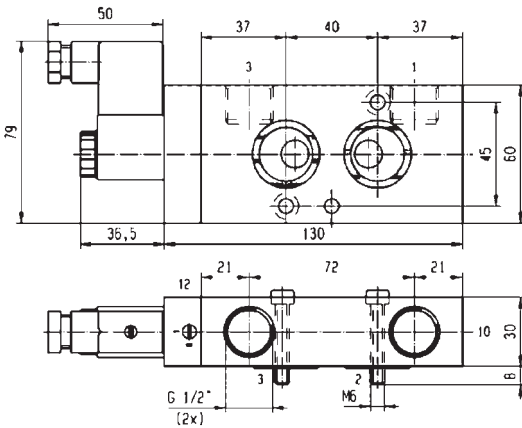
1. With manual override



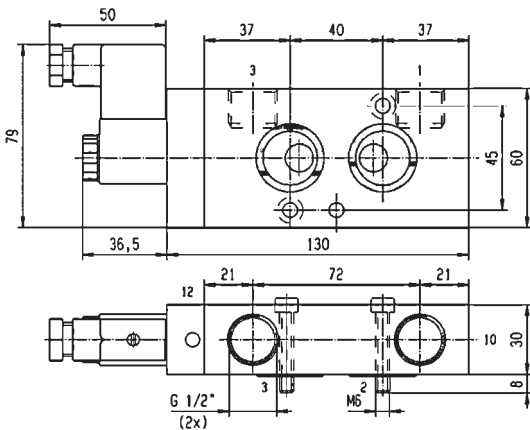
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8056



Drawing 8060



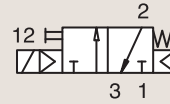
Drawing 8251

# 3/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### SOLENOID OPERATED - SPRING RETURN

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/2"	12	3000	2.5	10	10	-20	50	NBR	331N34 <sup>12</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8210
	12	3000	2.5	10	10	-20	50	NBR	331N34 <sup>12</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8210
	12	3000	2.5	10	10	-20	50	NBR	331N34 <sup>12</sup>	2995	481865	-	-	8	9	2.1	8210
	12	3000	2.5	10	10	-20	50	NBR	331N3402	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8252
	12	3000	2.5	10	10	-20	50	NBR	331N3402	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8252
	12	3000	2.5	10	10	-20	50	NBR	331N3402	2995	481865	-	-	8	9	2.1	8252

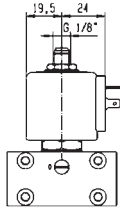
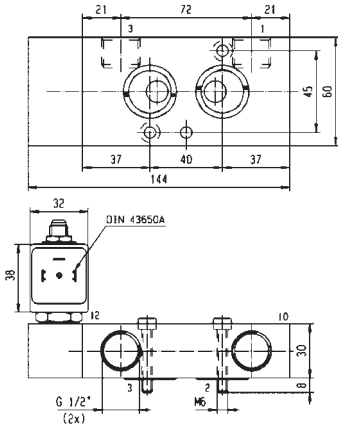
**Notes:**

1. With manual override
2. Pilot seat in FKM

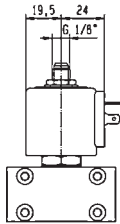
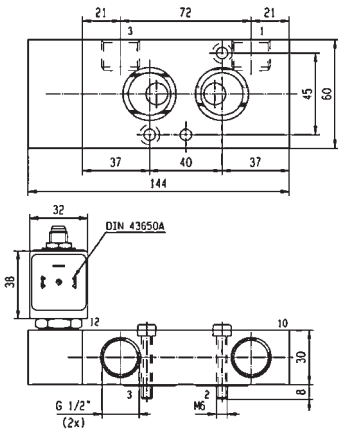




For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	12	3000	10	-20	-20
To	1/2"	12	3000	10	65	50



Drawing 8210



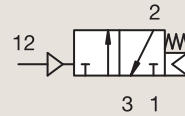
Drawing 8252

# 3/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



**AIR OPERATED - SPRING RETURN**

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	531N03	-	-	-	-	-	-	-	8058
1/2"	12	3000	2.5	10	10	-20	50	NBR	531N04	-	-	-	-	-	-	-	8061

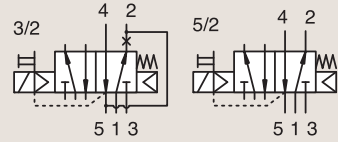


# 3/2 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### SOLENOID OPERATED - SPRING RETURN

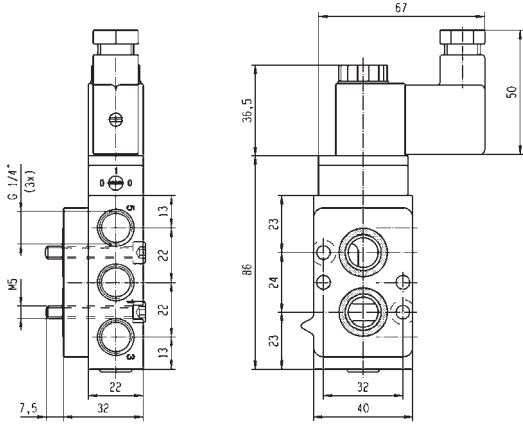
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	341N05 <sub>12</sub>	-	496131	-	-	3	3	1.2	8162
	7	1250	2.5	10	10	-20	50	NBR	341N05 <sub>12</sub>	-	496482	-	-	3	3	1.2	8162
	7	1250	2.5	10	10	-20	50	NBR	341N05 <sub>12</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8162
	7	1200	2.5	10	10	-20	50	NBR	341N0502 <sub>2</sub>	-	496131	-	-	3	3	1.2	8253
	7	1200	2.5	10	10	-20	50	NBR	341N0502 <sub>2</sub>	-	496482	-	-	3	3	1.2	8253
	7	1200	2.5	10	10	-20	50	NBR	341N0502 <sub>2</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8253

**Notes:**

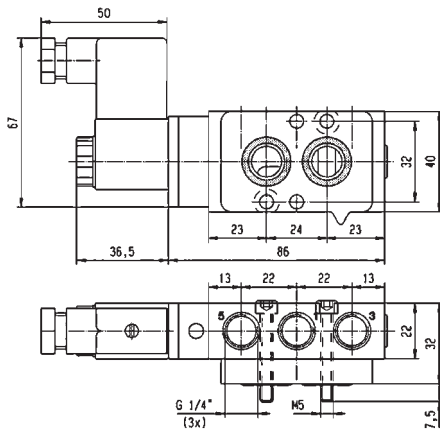
1. With manual override
2. Valve delivered with the 3/2 - 5/2 conversion plate



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1200	10	-20	-20
To	1/4"	7	1250	10	50	50



Drawing 8162



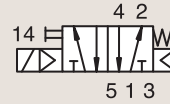
Drawing 8253

# 3/2 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



**SOLENOID OPERATED - SPRING RETURN**

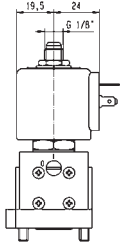
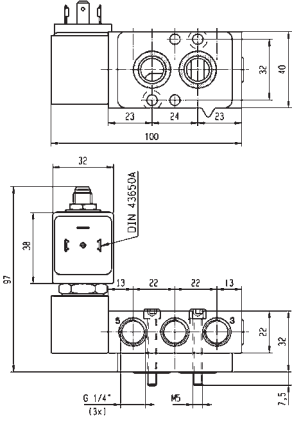
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1200	2.5	10	10	-20	50	NBR	341N35 <sup>123</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8213
	7	1200	2.5	10	10	-20	50	NBR	341N35 <sup>123</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8213
	7	1200	2.5	10	10	-20	50	NBR	341N35 <sup>123</sup>	2995	481865	-	-	8	9	2.1	8213
	7	1200	2.5	10	10	-20	50	NBR	341N3502 <sup>23</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8254
	7	1200	2.5	10	10	-20	50	NBR	341N3502 <sup>23</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8254
	7	1200	2.5	10	10	-20	50	NBR	341N3502 <sup>23</sup>	2995	481865	-	-	8	9	2.1	8254
	7	1200	2	-	10	-20	50	NBR	341N3590 <sup>3</sup>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	8.0	8254
	7	1200	2	-	10	-20	50	NBR	341N3590 <sup>3</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	8.0	8254
7	1200	2	10	10	-20	50	NBR	341N3590 <sup>3</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	8.0	8254	

**Notes:**

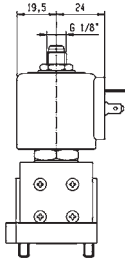
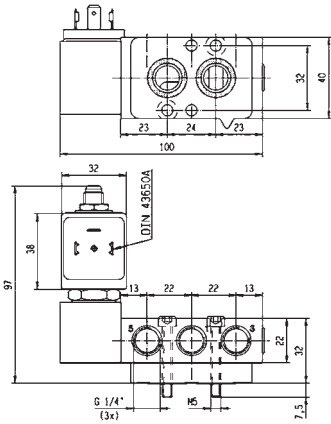
1. With manual override
2. Pilot seat in FKM
3. Valve delivered with the 3/2 - 5/2 conversion plate



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1200	10	-20	-20
To	1/4"	7	1200	10	50	50



Drawing 8213



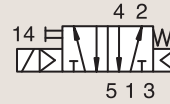
Drawing 8254

# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### SOLENOID OPERATED - SPRING RETURN

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	341N03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8063
	7	1250	2.5	10	10	-20	50	NBR	341N03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8063
	7	1250	2.5	10	10	-20	50	NBR	341N03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8063
1/2"	12	3000	2	10	10	-20	50	NBR	341N04 <sub>1</sub>	-	496131	-	-	3	3	1.2	8065
	12	3000	2	10	10	-20	50	NBR	341N04 <sub>1</sub>	-	496482	-	-	3	3	1.2	8065
	12	3000	2	10	10	-20	50	NBR	341N04 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8065
	12	3000	2.5	10	10	-20	50	NBR	341N34 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8211
	12	3000	2.5	10	10	-20	50	NBR	341N34 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8211
	12	3000	2.5	10	10	-20	50	NBR	341N34 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8211

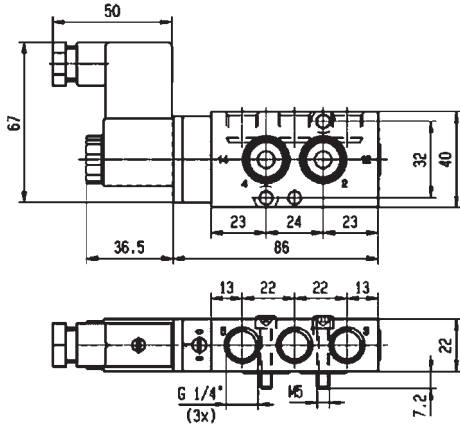
#### Notes:

1. With manual override
2. Pilot with FKM seal

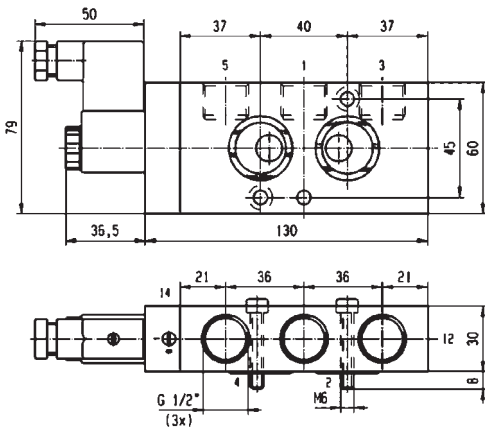




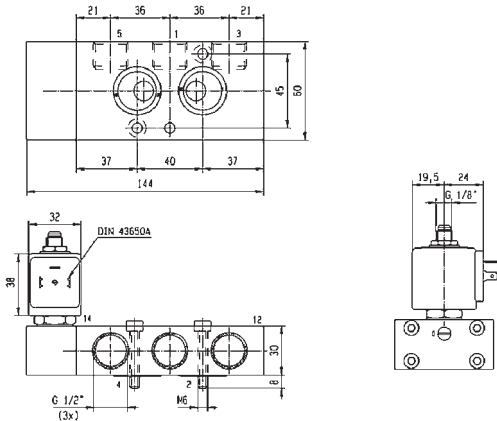
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8063



Drawing 8065



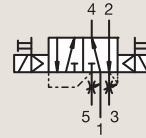
Drawing 8211

# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### DUAL SOLENOIDS

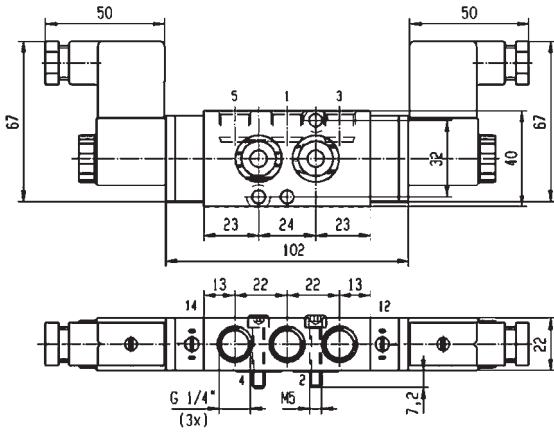
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	1.5	10	10	-20	50	NBR	347N03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8057
	7	1250	1.5	10	10	-20	50	NBR	347N03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8057
	7	1250	1.5	10	10	-20	50	NBR	347N03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8057
	7	1250	2.5	10	10	-20	50	NBR	347N33 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8209
	7	1250	2.5	10	10	-20	50	NBR	347N33 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8209
	7	1250	2.5	10	10	-20	50	NBR	347N33 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8209

**Notes:**

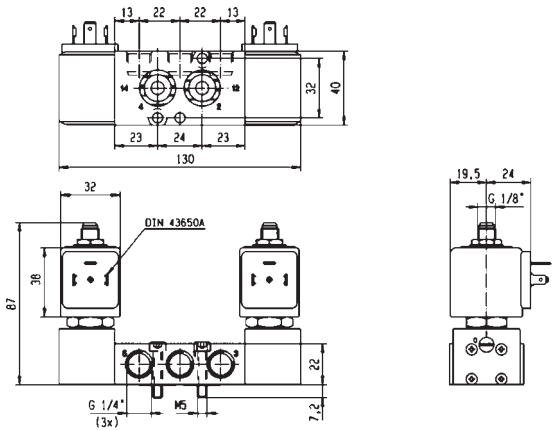
1. With manual override
2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/4"	7	1250	10	50	50



Drawing 8057



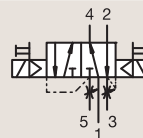
Drawing 8209

# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### DUAL SOLENOIDS

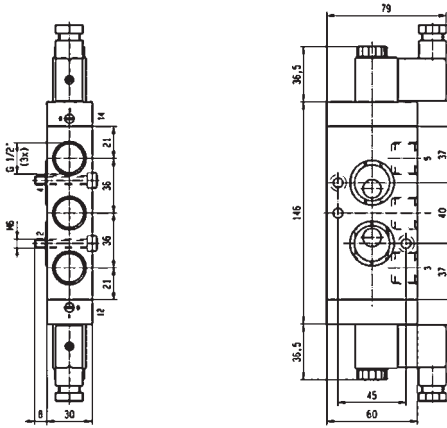
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/2"	12	3000	2	10	10	-20	50	NBR	347N04 <sub>1</sub>	-	496131	-	-	3	3	1.2	8154
	12	3000	2	10	10	-20	50	NBR	347N04 <sub>1</sub>	-	496482	-	-	3	3	1.2	8154
	12	3000	2	10	10	-20	50	NBR	347N04 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8154
	12	3000	2.5	10	10	-20	50	NBR	347N34 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8212
	12	3000	2.5	10	10	-20	50	NBR	347N34 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8212
	12	3000	2.5	10	10	-20	50	NBR	347N34 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8212

#### Notes:

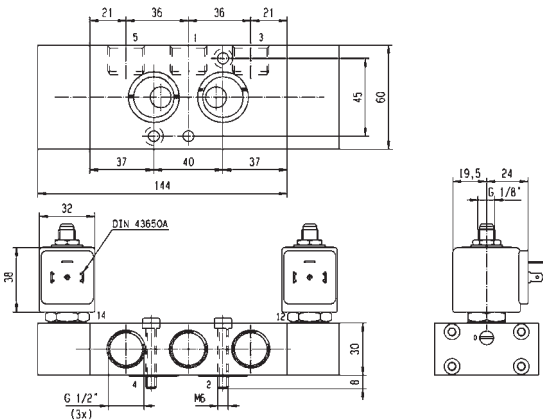
1. With manual override
2. Pilot seat in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/2"	12	3000	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8154



Drawing 8212

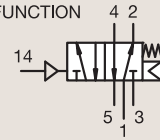
# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR

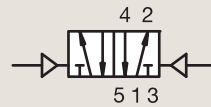
5/2 FUNCTION



**AIR OPERATED - SPRING RETURN**

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	2.5	10	10	-20	50	NBR	541N03	-	-	-	-	-	-	-	8064
1/2"	12	3000	2.5	10	10	-20	50	NBR	541N04	-	-	-	-	-	-	-	8066

ANODIZED ALUMINIUM  
NAMUR

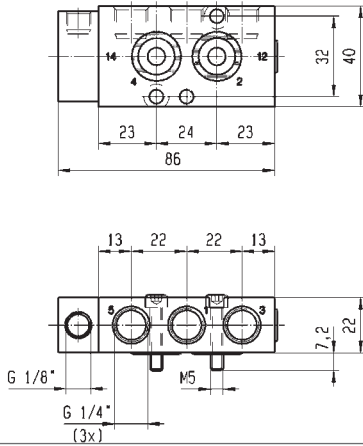


**AIR OPERATED AND RETURN**

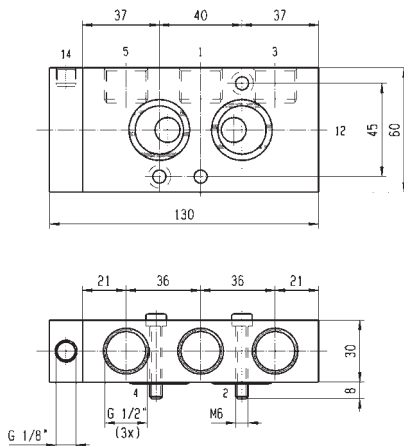
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	1.5	10	10	-20	50	NBR	547N03	-	-	-	-	-	-	-	8059



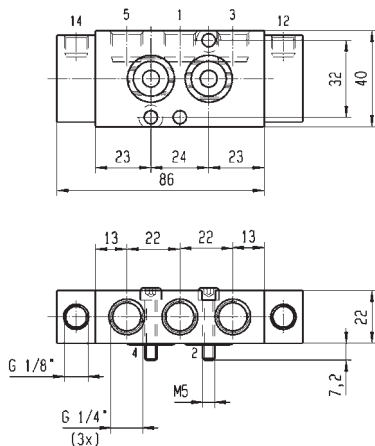
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/2"	12	3000	10	50	50



Drawing 8064



Drawing 8066



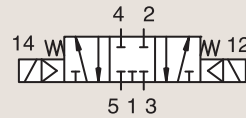
Drawing 8059

# 5/3

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

### ANODIZED ALUMINIUM NAMUR



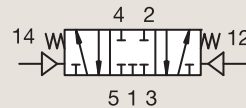
### W1 CLOSED CENTER POSITION

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode		Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.		AC W	DC W				
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C											
1/4"	7	1250	3	10	10	-20	50	NBR	342N03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8057	
	7	1250	3	10	10	-20	50	NBR	342N03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8057	
	7	1250	3	10	10	-20	50	NBR	342N03 <sub>1</sub>	-	496637	22	Ex td A22 IP65 - T95°C	3	3	1.2	8057	
	7	1250	2.5	10	10	-20	50	NBR	342N33 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	8209	
	7	1250	2.5	10	10	-20	50	NBR	342N33 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	8209	
	7	1250	2.5	10	10	-20	50	NBR	342N33 <sub>12</sub>	2995	481865	-	-	8	9	2.1	8209	

#### Notes:

1. With manual override
2. Pilot seat in FKM

### ANODIZED ALUMINIUM NAMUR



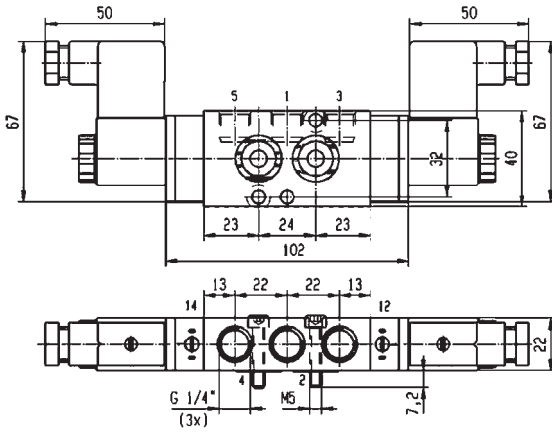
### AIR OPERATED W1 CLOSED CENTER POSITION

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode		Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.		AC W	DC W				
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C											
1/4"	7	1250	2.5	10	10	-20	50	NBR	542N03	-	-	-	-	-	-	-	-	8059

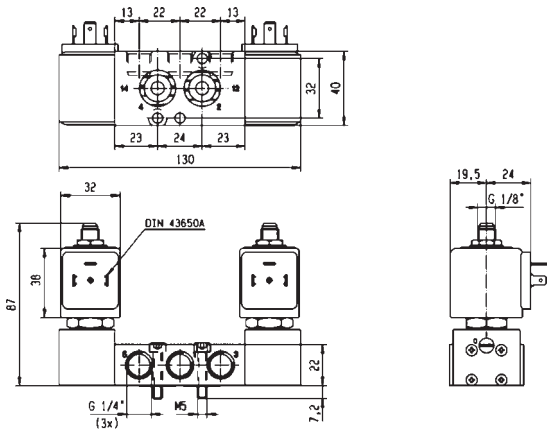




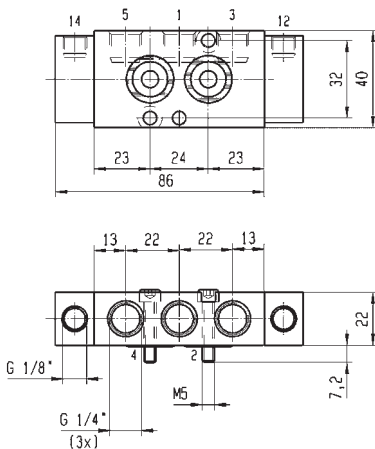
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	7	1250	10	-20	-20
To	1/4"	7	1250	10	50	50



Drawing 8057



Drawing 8209



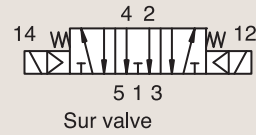
Drawing 8059

# 5/3

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N03-N04-N05 SERIES - HIGH FLOW ALUMINIUM SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### W3 EXHAUSTED IN CENTER POSITION

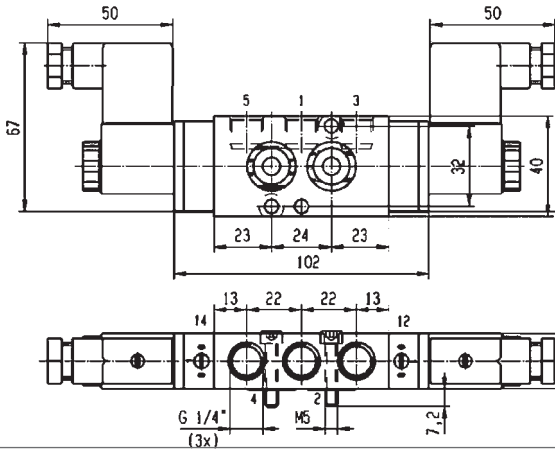
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	7	1250	3	10	10	-20	50	NBR	343N03 <sub>1</sub>	-	496131	-	-	3	3	1.2	8057
	7	1250	3	10	10	-20	50	NBR	343N03 <sub>1</sub>	-	496482	-	-	3	3	1.2	8057
	7	1250	3	10	10	-20	50	NBR	343N03 <sub>1</sub>	-	496637	22	Ex tD A22 IP65 - T95°C	3	3	1.2	8057

**Notes:**

1. With manual override



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	355	10	-20	-20
To	1/4"	7	1250	10	50	50



Drawing 8057





# 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

L95 SERIES - ALUMINIUM POPPET VALVES WITH NAMUR INTERFACE



**3/2**  
**5/2**

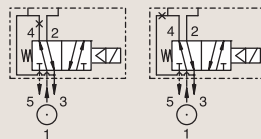
Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
Pilot Operated	Anodized Aluminium/NAMUR	Solenoid operated - spring return	1/8"-1/4"	4	355	10	75	206

# 3/2 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

### L95 SERIES - ALUMINIUM POPPET VALVES WITH NAMUR INTERFACE

#### ANODIZED ALUMINIUM NAMUR

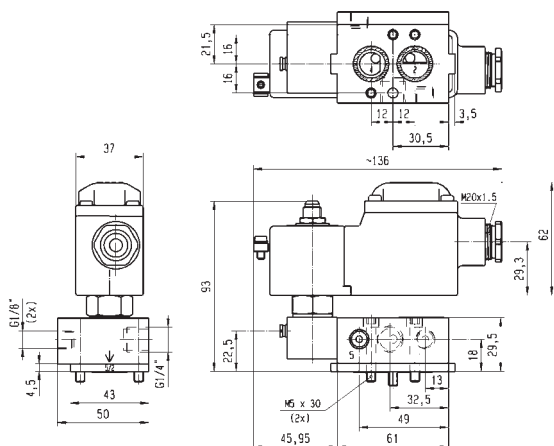


#### SOLENOID OPERATED - SPRING RETURN

Port size	Orifice Ø	Flow factor	Operating Pressure Differential (MOPD)		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max	Valve Ref.	Housing Ref.		Coil Ref.	AC W	DC W							
1/8"- 1/4"	4	355	1	10	10	-10	50	NBR	341L9504 <sup>123</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7009
	4	355	1	10	10	-10	75	NBR	341L9504 <sup>123</sup>	8993	488980	-	-	2	2.5	1.1	7009
	4	355	1	10	10	-10	65	NBR	341L9534 <sup>123</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	3990
	4	355	1	10	10	-10	60	NBR	341L9534 <sup>123</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	3990
	4	355	1	10	10	-10	75	NBR	341L9534 <sup>123</sup>	2995	481865	-	-	8	9	2.1	3990
	4	355	2	-	10	-10	55	NBR	341L9594 <sup>23</sup>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	3992
	4	355	1	-	10	-10	65	NBR	341L9594 <sup>23</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8354
	4	355	1	10	10	-10	65	NBR	341L9594 <sup>23</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8354

#### Notes:

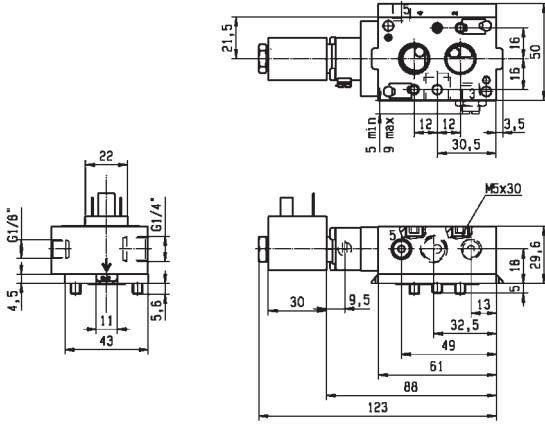
1. With manual override
2. Pilot seat in FKM
3. Valve delivered with the 3/2 - 5/2 conversion plate



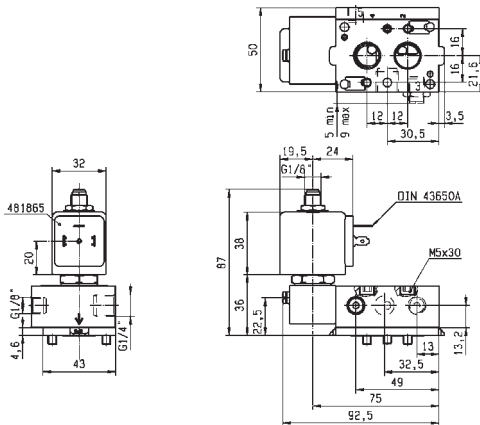
Drawing 8354



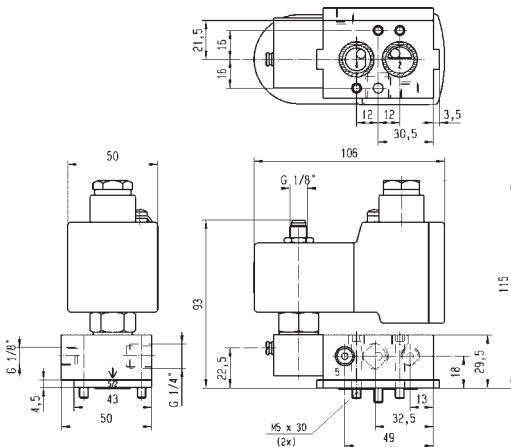
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	355	10	-10	-10
To	1/8"-1/4"	4	355	10	75	50



Drawing 7009



Drawing 3990



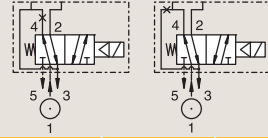
Drawing 3992

# 3/2 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

L95 SERIES - ALUMINIUM POPPET VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### SOLENOID OPERATED - SPRING RETURN

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"- 1/4"	4	355	2	-	10	-10	65	NBR	341L9597 <sub>123</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	8025
	4	355	2	10	10	-10	65	NBR	341L9597 <sub>123</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	8025
	4	355	2	-	10	-10	65	NBR	341L9597 <sub>123</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	8025
	4	355	2	-	10	-10	75	NBR	341L9597 <sub>123</sub>	2995	482740	-	-	-	1.6	6.0/8.0	8025
	4	355	2	-	10	-25	55	NBR	341L9598 <sub>23</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	3992
	4	355	2	-	10	-25	65	NBR	341L9598 <sub>23</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8354
	4	355	2	10	10	-25	65	NBR	341L9598 <sub>23</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8354

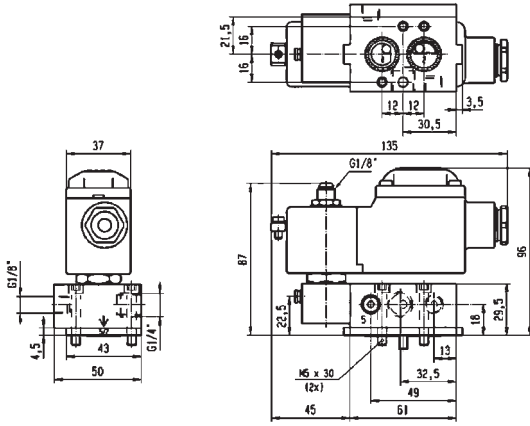
**Notes:**

1. With manual override
2. Valve delivered with the 3/2 - 5/2 conversion plate
3. Pilot seat in PUR

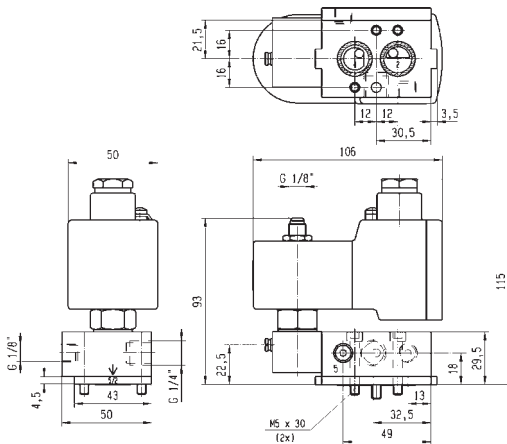




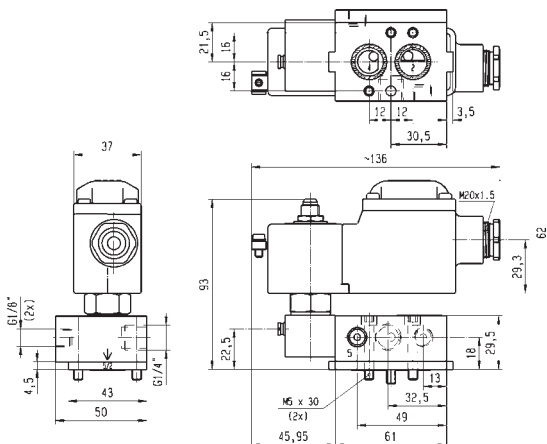
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	355	10	-10	-10
To	1/8"-1/4"	4	355	10	75	50



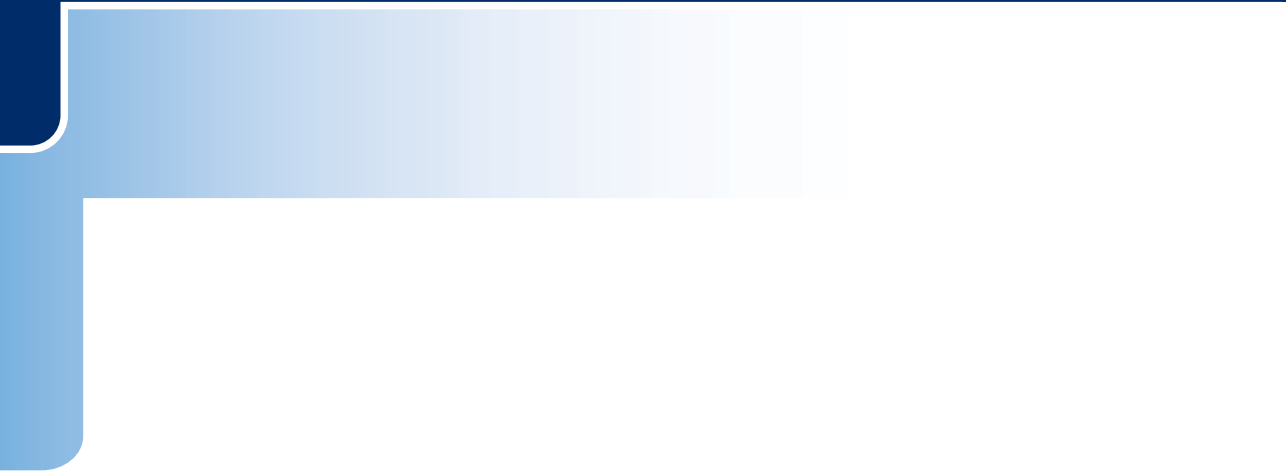
Drawing 8025



Drawing 3992



Drawing 8354





## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE



**3/2**  
**5/2**  
**5/3**

Way	Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Qn(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
3/2 - 5/2	Pilot Operated	316L Stainless St./NAMUR	Normally Closed	3/8"-1/4"	8	1400	10	80	212
			Solenoid operated - spring return	3/8"-1/4"	8	1400	10	80	214
	Pilot Operated	Anodized Aluminium/NAMUR	Solenoid operated - spring return	1/4"	8	1400	10	80	216
				1/8"-1/4"	4 to 8	1400	10	80	218
	External Operated	Anodized Aluminium/NAMUR	Air operated - spring return	1/8"-1/4"	4	1400	10	80	226
	Pilot Operated	Anodized Aluminium/NAMUR	Control by Electric Impulse	1/8"-1/4"	4	1400	10	80	226
5/2	Pilot Operated	316L Stainless St./NAMUR	Dual Solenoids	3/8"-1/4"	8	1400	10	80	228
		Anodized Aluminium/NAMUR	Dual Solenoids	1/4"	8	1400	10	80	230
		1/8"-1/4"	4	1400	10	80	232		
5/3	Pilot Operated	Anodized Aluminium/NAMUR	W1 closed center position	1/4"	4	1400	10	65	234
				1/8"-1/4"	4	1400	10	80	234

# 3/2-5/2

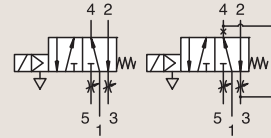
## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

316L STAINLESS ST.

NAMUR

**NORMALLY CLOSED**



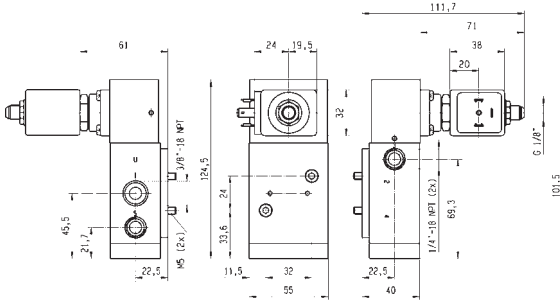
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
NPT	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
3/8"-1/4"	8	1400	2	10	10	-25	65	NBR	U341N3250	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7554
	8	1400	2	10	10	-25	60	NBR	U341N3250	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7554
	8	1400	2	10	10	-25	80	NBR	U341N3250	2995	481865	-	-	8	9	2.1	7554
	8	1400	2	-	10	-25	55	NBR	U341N3292	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0	7556
	8	1400	2	10	10	-25	65	NBR	U341N3292	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0	7556
	8	1400	2	10	10	-25	65	NBR	U341N3292	-	495910	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0	7556
	8	1400	2	-	10	-25	80	NBR	U341N3295	-	496565	0-20	Ex ia IIB/IIC T4 to T6	-	0.3	9.0/10.1	7554
	8	1400	2	10	10	-25	75	NBR	U341N3295	-	492310	1-21	Ex mb II T4 to T5	6	6	9.0/10.1	7696
	8	1400	2	10	10	-25	65	NBR	U341N3295	-	496800	1-21	Ex db mb IIC T4	8	8	9.0/10.1	7554
	8	1400	2	-	10	-25	75	NBR	U341N3295	-	492210	1-21	Ex eb mb IIC T5 to T6	-	1 to 1.8	9.0/10.1	7696
	8	1400	2	10	10	-25	80	NBR	U341N3295	-	496555	1-21	Ex db mb IIC T4 to T6	6	6	9.0/10.1	7554
	8	1400	2	10	10	-25	75	NBR	U341N3295	-	496895	-	-	8	8	9.0/10.1	7554

**Notes:**

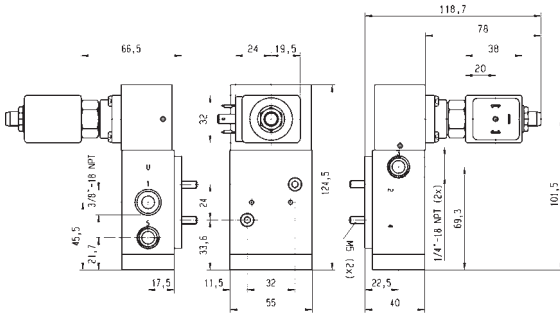
1. Pilot seal in FKM



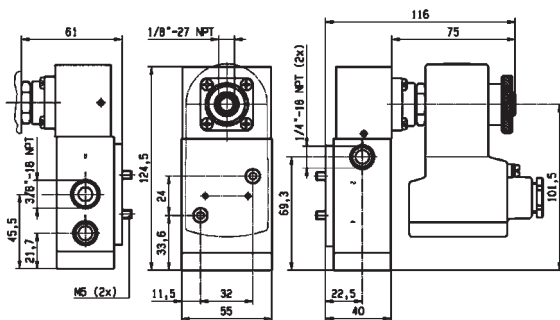
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"-1/4"	8	0	10	-25	-25
To	3/8"-1/4"	8	1400	10	80	0



Drawing 7554



Drawing 7555



Drawing 7696

# 3/2-5/2

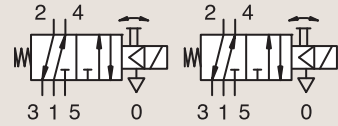
## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

316L STAINLESS ST.

NAMUR

**SOLENOID OPERATED - SPRING RETURN**



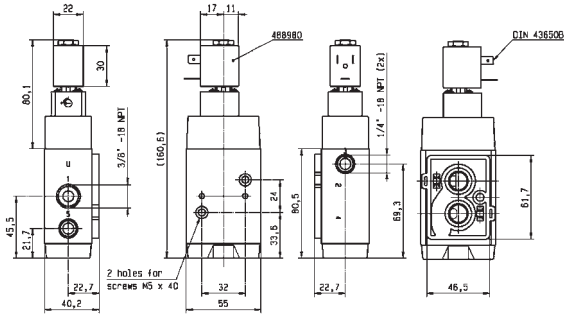
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
NPT	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
3/8"	8	1400	2	10	10	-25	50	NBR	U341N0250 <sub>123</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7577
1/4"	8	1400	2	10	10	-25	80	NBR	U341N0250 <sub>123</sub>	8993	488980	-	-	2	2.5	1.1	7577

**Notes:**

1. With manual override
2. With captured exhaust
3. Pilot seal in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"-1/4"	8	1400	10	-25	-25
To	3/8"-1/4"	8	1400	10	80	50



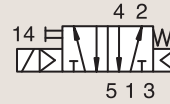
Drawing 7577

# 3/2-5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR

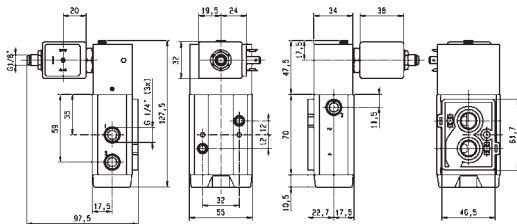


SOLENOID OPERATED - SPRING RETURN

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	8	1400	2	10	10	-25	50	NBR	341N02 <sub>123</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7313
	8	1400	2	10	10	-25	80	NBR	341N02 <sub>123</sub>	8993	488980	-	-	2	2.5	1.1	7313
	8	1400	2	10	10	-25	50	NBR	341N12 <sub>123</sub>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7312
	8	1400	2	10	10	-25	80	NBR	341N12 <sub>123</sub>	8993	488980	-	-	2	2.5	1.1	7312
	8	1400	2	10	10	-25	65	NBR	341N22 <sub>123</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7318
	8	1400	2	10	10	-25	60	NBR	341N22 <sub>123</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7318
	8	1400	2	10	10	-25	80	NBR	341N22 <sub>123</sub>	2995	481865	-	-	8	9	2.1	7318
	8	1400	2	10	10	-25	65	NBR	341N32 <sub>13</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7317
	8	1400	2	10	10	-25	60	NBR	341N32 <sub>13</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7317
	8	1400	2	10	10	-25	80	NBR	341N32 <sub>13</sub>	2995	481865	-	-	8	9	2.1	7317
	8	1400	2	10	10	-25	65	NBR	341N3202 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7317
	8	1400	2	10	10	-25	60	NBR	341N3202 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7317
8	1400	2	10	10	-25	80	NBR	341N3202 <sub>3</sub>	2995	481865	-	-	8	9	2.1	7317	

**Notes:**

1. With manual override
2. With captured exhaust
3. Pilot seal in FKM

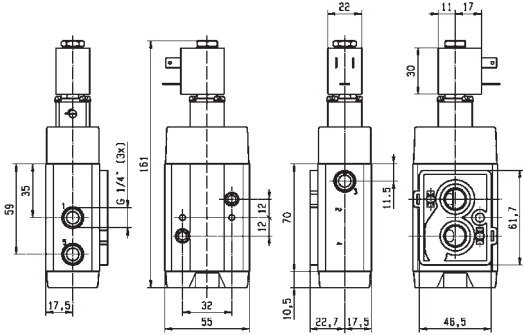


Drawing 7317

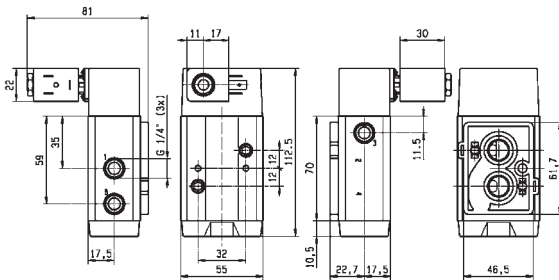




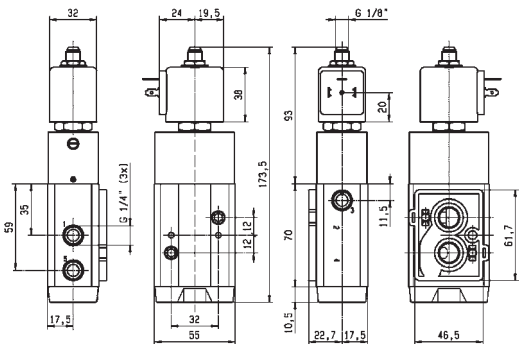
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	1400	10	-25	-25
To	1/4"	8	1400	10	80	50



Drawing 7313



Drawing 7312



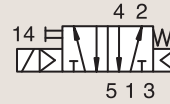
Drawing 7318

# 3/2-5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



**SOLENOID OPERATED - SPRING RETURN**

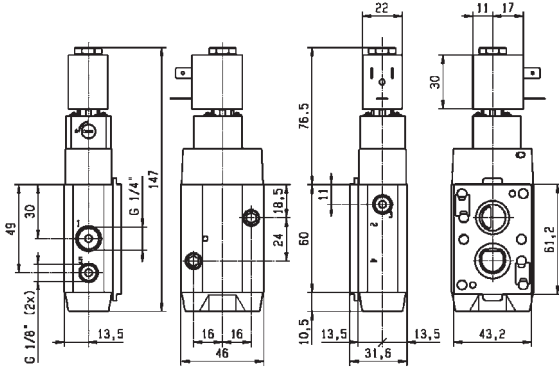
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"-1/4"	4	600	2	10	10	-25	50	NBR	341N01 <sup>123</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7301
	4	600	2	10	10	-25	80	NBR	341N01 <sup>123</sup>	8993	488980	-	-	2	2.5	1.1	7301
	4	600	2	10	10	-25	50	NBR	341N11 <sup>123</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7300
	4	600	2	10	10	-25	80	NBR	341N11 <sup>123</sup>	8993	488980	-	-	2	2.5	1.1	7300
	4	600	2	10	10	-25	65	NBR	341N21 <sup>13</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7311
	4	600	2	10	10	-25	60	NBR	341N21 <sup>13</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7311
	4	600	2	10	10	-25	80	NBR	341N21 <sup>13</sup>	2995	481865	-	-	8	9	2.1	7311

**Notes:**

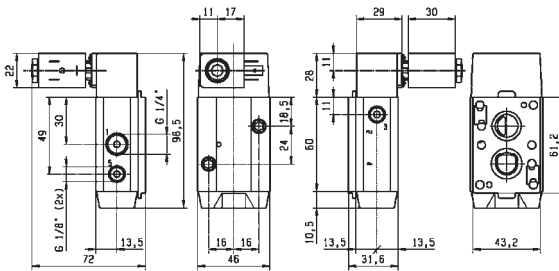
1. With manual override
2. With captured exhaust
3. Pilot with FKM seal



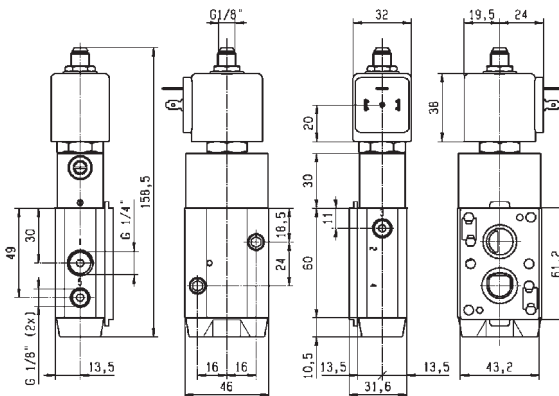
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	600	10	-25	-25
To	1/8"-1/4"	4	600	10	80	50



Drawing 7301



Drawing 7300



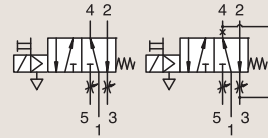
Drawing 7311

# 3/2-5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



**SOLENOID OPERATED - SPRING RETURN**

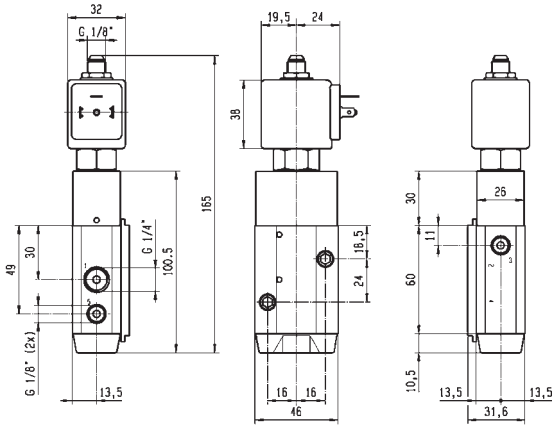
Port size	Orifice Ø	Flow factor	Operating Pressure Differential		Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.	
			Min	Max (MOPD)	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W			
BSP	mm	Qn l/min	bar	bar	°C	°C											
1/8"-1/4"	4	600	2	-	10	-25	55	NBR	341N2190 <sub>2</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7874
	4	600	2	-	10	-25	55	NBR	341N2190 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7874
	4	600	2	10	10	-25	55	NBR	341N2190 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7874
	4	600	2	10	10	-25	65	NBR	341N31 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7295
	4	600	2	10	10	-25	60	NBR	341N31 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7295
	4	600	2	10	10	-25	80	NBR	341N31 <sub>12</sub>	2995	481865	-	-	8	9	2.1	7295
	4	600	2	10	10	-25	65	NBR	341N3102 <sub>2</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7295
	4	600	2	10	10	-25	60	NBR	341N3102 <sub>2</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7295
	4	600	2	10	10	-25	80	NBR	341N3102 <sub>2</sub>	2995	481865	-	-	8	9	2.1	7295
	4	600	2	10	10	-40	65	NBR	341N3108 <sub>13</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7295
	4	600	2	10	10	-40	60	NBR	341N3108 <sub>13</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7295
	4	600	2	10	10	-40	65	NBR	341N3108 <sub>3</sub>	2995	481865	-	-	8	9	2.1	7295
	4	600	2	10	10	-40	65	NBR	341N3128 <sub>3</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7295
	4	600	2	10	10	-40	60	NBR	341N3128 <sub>3</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7295
	4	600	2	10	10	-40	65	NBR	341N3128 <sub>3</sub>	2995	481865	-	-	8	9	2.1	7295
	4	600	2	-	10	-25	65	NBR	341N3130 <sub>12</sub>	-	495905	1-21	Ex db mb IIC T4	-	8	2.1	7295
	4	600	2	-	10	-25	60	NBR	341N3130 <sub>12</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	-	9	2.1	7295
	4	600	2	-	10	-25	80	NBR	341N3130 <sub>12</sub>	2995	481865	-	-	-	9	2.1	7295

**Notes:**

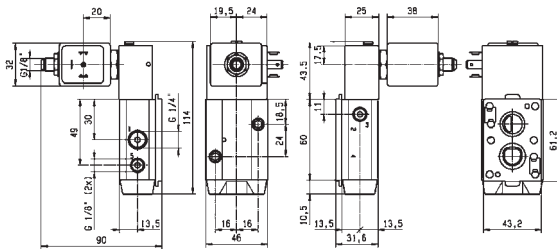
1. With manual override
2. Pilot with FKM seal
3. Pilot with PUR seal



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	600	10	-40	-25
To	1/8"-1/4"	4	600	10	80	50



Drawing 7874



Drawing 7295

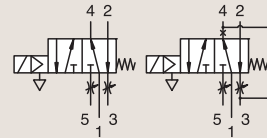
# 3/2-5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR

SOLENOID OPERATED - SPRING RETURN



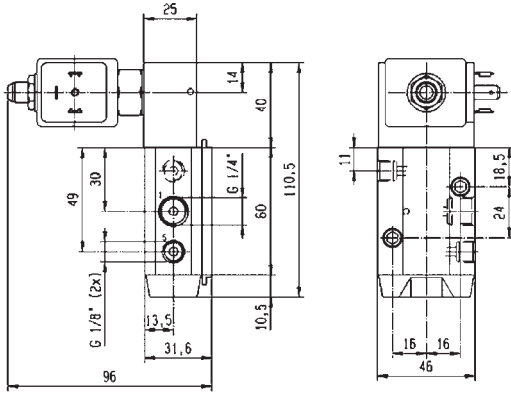
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	AC bar	DC bar	Min		Max	Valve Ref.	Housing Ref.			Coil Ref.	AC W		
1/8"-1/4"	4	600	2	-	10	-10	55	NBR	341N3190 <sub>3</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7349
	4	600	2	-	10	-10	65	NBR	341N3190 <sub>3</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7349
	4	600	2	10	10	-10	65	NBR	341N3190 <sub>3</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7349
	4	600	2	-	10	-25	65	NBR	341N3196 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8017
	4	600	2	-	10	-25	55	NBR	341N3196 <sub>2</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	8017
	4	600	2	10	10	-25	65	NBR	341N3196 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8017
	4	600	2	-	10	-25	65	NBR	341N3197 <sub>12</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8017
	4	600	2	10	10	-25	65	NBR	341N3197 <sub>12</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8017
	4	600	2	-	10	-25	65	NBR	341N3197 <sub>12</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/7.0/8.0	8017
	4	600	2	-	10	-25	65	NBR	341N3197 <sub>12</sub>	2995	482740	-	-	-	1.6	6.0/7.0/8.0	8017

**Notes:**

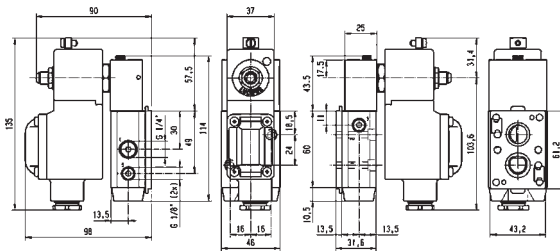
1. With manual override
2. Pilot seal in FKM
3. Pilot seal in PUR



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	600	10	-25	-25
To	1/8"-1/4"	4	600	10	65	50



Drawing 7349



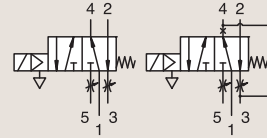
Drawing 8017

# 3/2-5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



**SOLENOID OPERATED - SPRING RETURN**

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"-1/4"	8	1400	2	-	10	-25	55	NBR	341N3290 <sub>3</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	7350
	8	1400	2	-	10	-25	65	NBR	341N3290 <sub>3</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	7350
	8	1400	2	10	10	-25	65	NBR	341N3290 <sub>3</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	7350
	8	1400	2	-	10	-25	65	NBR	341N3296 <sub>2</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8029
	8	1400	2	-	10	-25	55	NBR	341N3296 <sub>2</sub>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	6.0/7.0/8.0	8029
	8	1400	2	10	10	-25	65	NBR	341N3296 <sub>2</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8029
	8	1400	2	-	10	-25	65	NBR	341N3297 <sub>12</sub>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/7.0/8.0	8029
	8	1400	2	10	10	-25	65	NBR	341N3297 <sub>12</sub>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/7.0/8.0	8029
	8	1400	2	-	10	-25	65	NBR	341N3297 <sub>12</sub>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/7.0/8.0	8029
	8	1400	2	-	10	-25	65	NBR	341N3297 <sub>12</sub>	2995	482740	-	-	-	1.6	6.0/7.0/8.0	8029

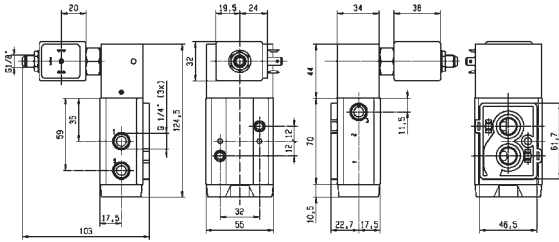
**Notes:**

1. With manual override
2. Pilot with PUR seal
3. Pilot with FKM seal

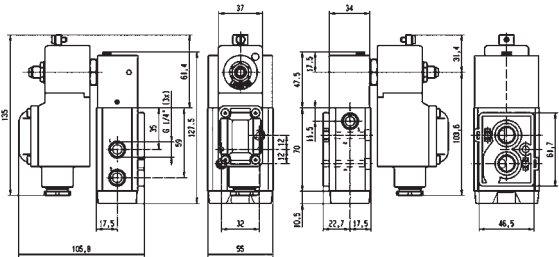




For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	8	1400	10	-25	-25
To	1/8"-1/4"	8	1400	10	65	50



Drawing 7350



Drawing 8029

# 3/2-5/2

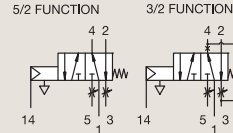
## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM

NAMUR

AIR OPERATED - SPRING RETURN

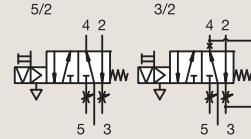


Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"	4	600	2	10	10	-25	80	NBR	541N01	-	-	-	-	-	-	-	7309
1/4"	4	600	2	10	10	-40	50	NBR	541N0108	-	-	-	-	-	-	-	7309

ANODIZED ALUMINIUM

NAMUR

CONTROL BY ELECTRIC IMPULSE



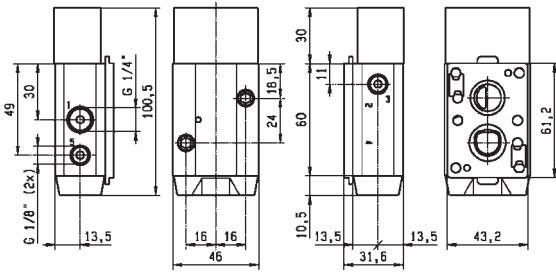
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"-1/4"	4	600	2	-	10	-25	80	NBR	345N31 <sup>12</sup>	4269	485400	-	-	-	13	4.0	7295

**Notes:**

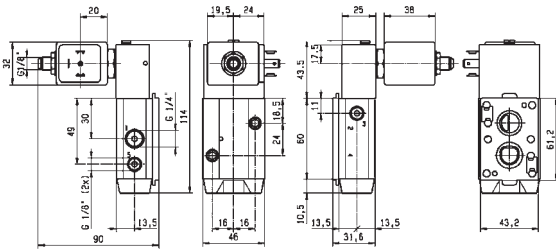
- 1. With manual override
- 2. Pilot seal in FKM



For this page	Port size	Orifice (mm)	Q <sub>n</sub> (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	600	10	-25	-25
To	1/8"-1/4"	4	600	10	80	50



Drawing 7309



Drawing 7295

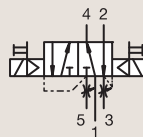
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## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

316L STAINLESS ST.

NAMUR



### DUAL SOLENOIDS

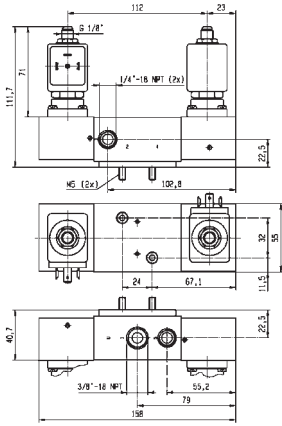
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
NPT	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
	8	1400	2	10	10	-25	65	NBR	U347N3250 <sub>1</sub>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7557
3/8"-1/4"	8	1400	2	10	10	-25	60	NBR	U347N3250 <sub>1</sub>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7557
	8	1400	2	10	10	-25	80	NBR	U347N3250 <sub>1</sub>	2995	481865	-	-	8	9	2.1	7557

**Notes:**

1. Pilot seal in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	3/8"-1/4"	8	1400	10	-25	-25
To	3/8"-1/4"	8	1400	10	80	50



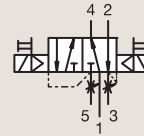
Drawing 7557

# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### DUAL SOLENOIDS

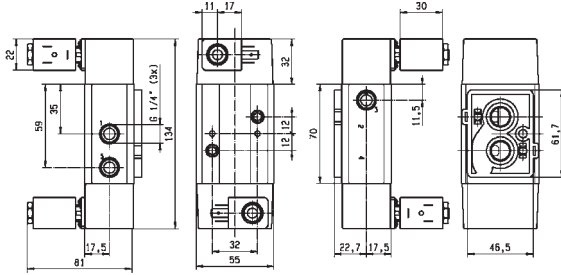
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)		Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"	8	1400	2	10	10	-25	50	NBR	347N12 <sup>123</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7315
	8	1400	2	10	10	-25	80	NBR	347N12 <sup>123</sup>	8993	488980	-	-	2	2.5	1.1	7315
	8	1400	2	10	10	-25	65	NBR	347N32 <sup>13</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7320
	8	1400	2	10	10	-25	60	NBR	347N32 <sup>13</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7320
	8	1400	2	10	10	-25	80	NBR	347N32 <sup>13</sup>	2995	481865	-	-	8	9	2.1	7320

**Notes:**

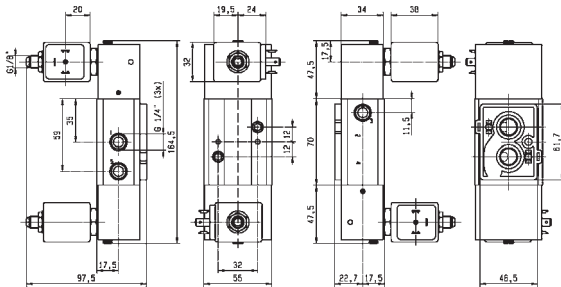
1. With manual override
2. With captured exhaust
3. Pilot with FKM seal



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/4"	8	1400	10	-25	-25
To	1/4"	8	1400	10	80	50



Drawing 7315

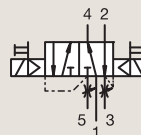


# 5/2

## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM  
NAMUR



### DUAL SOLENOIDS

Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"-1/4"	4	400	2	10	10	-25	50	NBR	347N11 <sup>124</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7305
	4	400	2	10	10	-25	80	NBR	347N11 <sup>124</sup>	8993	488980	-	-	2	2.5	1.1	7305
	4	400	2	10	10	-25	65	NBR	347N31 <sup>14</sup>	-	495905	1-21	Ex db mb IIC T4	8	8	2.1	7297
	4	400	2	10	10	-25	60	NBR	347N31 <sup>14</sup>	2995	495870	2-22	Ex nc AC IIC T3/T4	8	9	2.1	7297
	4	400	2	10	10	-25	80	NBR	347N31 <sup>14</sup>	2995	481865	-	-	8	9	2.1	7297
	4	400	2	-	10	-25	55	NBR	347N3190 <sup>4</sup>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	7.0/8.0	8141
	4	400	2	-	10	-25	55	NBR	347N3190 <sup>4</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	7.0/8.0	8141
	4	400	2	10	10	-25	65	NBR	347N3190 <sup>4</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	7.0/8.0	8141
	4	400	2	-	10	-25	55	NBR	347N3196 <sup>3</sup>	2995	483580.01	0-20	Ex ia IIC T6	-	0.5 to 3	8.0	7297
	4	400	2	-	10	-25	65	NBR	347N3196 <sup>3</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	8.0	7297
	4	400	2	10	10	-25	65	NBR	347N3196 <sup>3</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	8.0	7297
	4	400	2	-	10	-25	65	NBR	347N3197 <sup>13</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	3.0/6.0/8.0	7297
	4	400	2	10	10	-25	65	NBR	347N3197 <sup>13</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	3.0/6.0/8.0	7297
	4	400	2	-	10	-25	65	NBR	347N3197 <sup>13</sup>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	3.0/6.0/8.0	7297
	4	400	2	-	10	-25	65	NBR	347N3197 <sup>13</sup>	2995	482740	-	-	-	1.6	3.0/6.0/8.0	7297

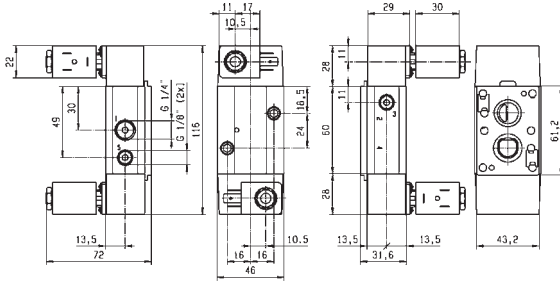
**Notes:**

1. With manual override
2. With captured exhaust
3. Pilot with PUR seal
4. Pilot with FKM seal

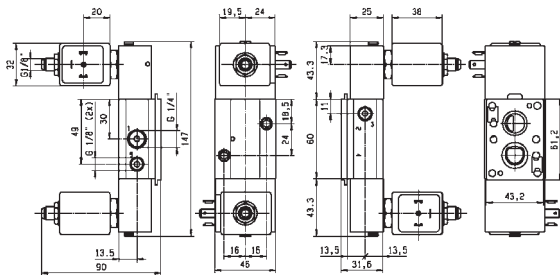




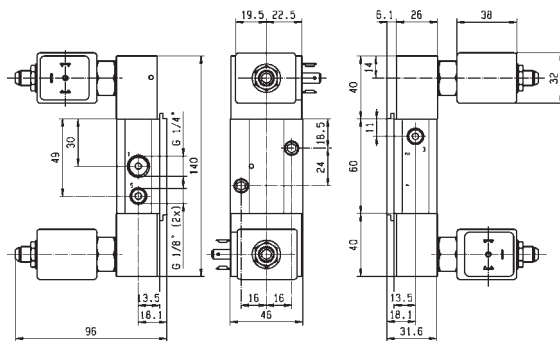
For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	400	10	-25	-25
To	1/8"-1/4"	4	400	10	80	50



Drawing 7305



Drawing 7297



Drawing 8141

# 5/3

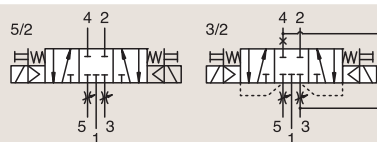
## 3 AND 5 WAY VALVES NAMUR PILOT OPERATED

### N01 N02 SERIES - SPOOL VALVES WITH NAMUR INTERFACE

ANODIZED ALUMINIUM

NAMUR

W1 CLOSED CENTER POSITION



Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/4"-1/8"	4	400	2	-	10	-25	65	NBR	342N3197 <sup>12</sup>	-	495910	0-20	Ex ia IIC T4 to T6	-	0.3 to 3	6.0/8.0	7297
	4	400	2	10	10	-25	65	NBR	342N3197 <sup>12</sup>	-	495900	1-21	Ex db mb IIC T4 to T6	2.5	2	6.0/8.0	7305
	4	400	2	-	10	-25	65	NBR	342N3197 <sup>12</sup>	2995	496125	2-22	Ex nAC IIC T5/T6	-	1.6	6.0/8.0	7305
	4	400	2	-	10	-25	65	NBR	342N3197 <sup>12</sup>	2995	482740	-	-	-	1.6	6.0/8.0	7305

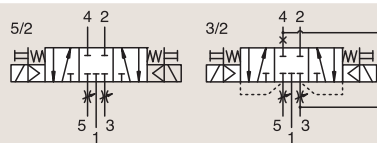
**Notes:**

1. With manual override
2. Pilot seal in PUR

ANODIZED ALUMINIUM

NAMUR

W1 CLOSED CENTER POSITION



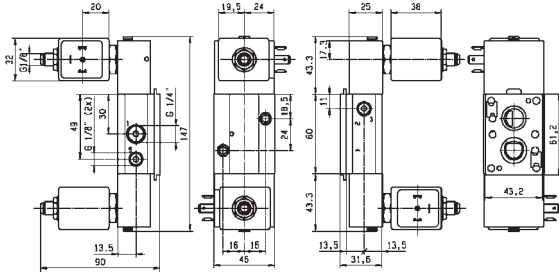
Port size	Orifice Ø	Flow factor	Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			ATEX Zone	Protection Mode	Power		Coil Group	Dwg. No.
			Min	Max(MOPD)	DC bar	Min	Max		Valve Ref.	Housing Ref.	Coil Ref.			AC W	DC W		
BSP	mm	Qn l/min	bar	AC bar	DC bar	°C	°C										
1/8"-1/4"	4	400	2	10	10	-25	50	NBR	342N11 <sup>123</sup>	-	482606	1-21	Ex mb IIC T4/T5	2	2.5	1.1	7305
1/4"	4	400	2	10	10	-25	80	NBR	342N11 <sup>123</sup>	8993	488980	-	-	2	2.5	1.1	7305

**Notes:**

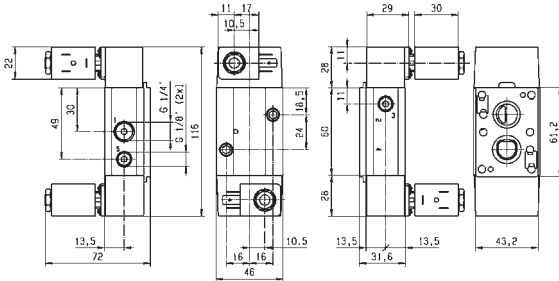
1. With manual override
2. With captured exhaust
3. Pilot seal in FKM



For this page	Port size	Orifice (mm)	Qn (l/min)	MOPD (bar)	Fluid Temp (°C)	Amb Temp (°C)
From	1/8"-1/4"	4	400	10	-25	-25
To	1/4"	4	400	10	80	50



Drawing 7297



Drawing 7305



# FOR PNEUMATIC ACTUATOR CONTROL IN ATEX ZONES



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding





## FOR PNEUMATIC ACTUATOR CONTROL

### EX BUS MANIFOLD FOR PNEUMATIC ACTUATOR CONTROL

Parkers EExPress™ bus manifold package has been designed for the control of pneumatic actuators in the Process Industry where hazardous environments Zone 1, 21 and or Zone 2, 22 are present.

EExPress™ is a stackable system that includes Gateway - Input sensor modules - Solenoid valve modules.

NAMUR Standard ON/OFF Where the (NPN) sensor can be directly connected on the input sensor module.

The Ex manifold uses the Profibus DP protocol.



### INCREASED PROCESS PRODUCTIVITY

- When plant installation's are simplified, the engineering study, component package's and man hour costs are reduced, this results in a quicker production start-up.
- Through more efficient process control, quality and quantity of production is improved.
- EExPress™ bus manifold replaces a lot of proprietary components, thus reducing cost of installation.
- EExPress™ bus manifold simplifies commissioning time resulting in quicker plant start up time.
- EExPress™ bus manifold reduces overall product life cost through reduction in maintenance costs.



### A USER FRIENDLY PRODUCT

- EExPress™ uses the well known profibus DP protocol.
- It as been designed to approach a "plug and play" usage.
- At a glance at the LED the user knows immediately the current production Process status.
- Authorised users may re-address the 5/2 valves directly from the manifold.



## PLANT INSTALLATION SIMPLIFICATION

- EExPress™ significantly reduces the need of electronic components such as couplers, repeaters, safety barriers, PLC, etc.
- It significantly reduces the need of mechanical components such as pressurised cabinet's, pneumatic piping, electrical wiring, connectors, etc.
- One bus address can operate and control up to 32 x solenoid valves on one manifold (or combination of sensor modules and solenoid valves).
- Integrated solution with high flow valves and sensor signal inputs.

## BETTER PROCESS & PERSONNEL SAFETY

- With separated wiring, the bus communication\* is maintained "ON" even if the coil voltage supply is cut.
- Solenoid valve status + inputs sensor status + safety pressure status, etc.
- The diagnostic capabilities offer permanently a real reliable Process Control.
- It provides more efficient Process Control due to centralised mounting close to actuators.
- Ex px [ia] [ib] ib mb IIC T5 Ex tD A21 IP65 T100°C protection as well as the patented coil connection eliminate risks associated with bad handling.  
eg.: disconnection of bus or sensor connectors in presence of gases.

## PROVEN ACHIEVEMENT THROUGH INNOVATIVE FLUID CONTROL



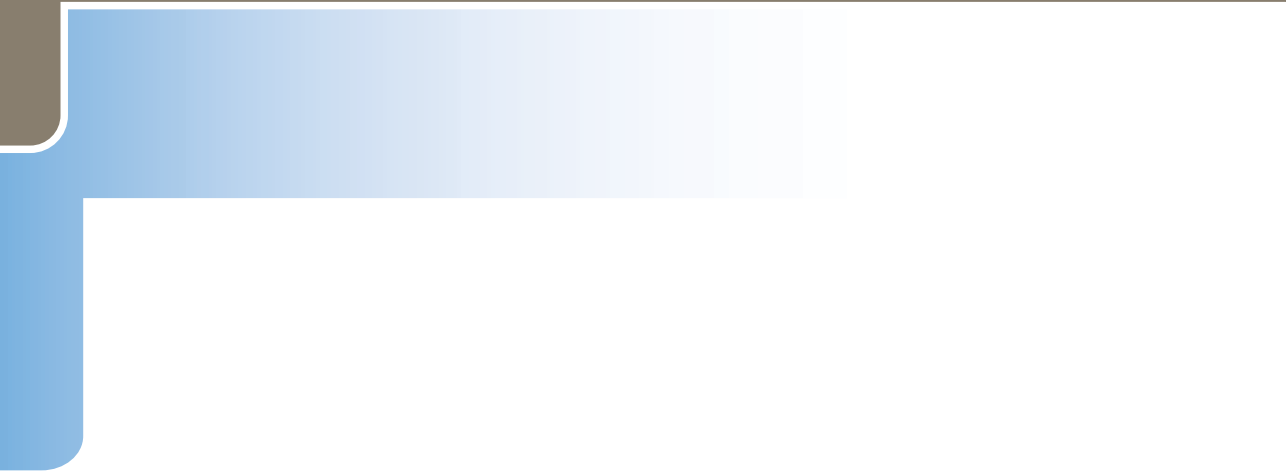
IECEx LCI 07.0027 X



LCIE 01 ATEX 6013 X

Ex px [ia] [ib] ib mb IIC T5  
Ex tD A21 IP65 T100°C







# A COMPLETE RANGE OF COILS, HOUSINGS AND ELECTRICAL PARTS FOR SOLENOID VALVES



## DEFINITIONS

### HOUSINGS OR COIL ASSEMBLY KITS, COILS AND ELECTRICAL PARTS



#### Housing:

We define a **housing** as the combination of the fixing elements including the nameplate **1**, the cover **2** or the subplate **6** and the envelope itself **4** or **5** which protects the coil and its electrical components. The housings may be made of metal or plastic material.

#### Coil assembly kit:

The coil assembly kit **7** or **9** is the set comprising a plate, washer and nut. Sometimes coil assembly kits consist only of a nut or a special fixing device.

#### Coil:

This consists of the winding and its plastic moulding. There are three different types of coils distinguished by their shape and dimensions: 40 mm **3**, 32 mm **8** and 22 mm **10**.

#### Electric part:

The electric part is the set comprising the housing, the assembly kit and the coil.

#### Attention:

Any Parker FCDE coil or electrical part may be energised only when mounted on a valve. Otherwise there is a risk of damaging the product and its surroundings (overheating, explosion, fire, etc.).

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## INDEX FOR EXPLOSION PROOF ELECTRICAL PARTS

Coil Reference	Coil Group	Designation	Power DC Pn ( W )	Power AC Pn (W)	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection (Gas)	Page
496637	1.2	Explosion proof electrical part "nc AC", 22 mm, double frequency	3.0	3.0	-40°C to +50°C	-	IP65	II 3 GD Ex tc IICT 95°C	271
495880	2.0/2.2	Explosion proof electrical part "nc AC", 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3	275
496155	2.0/2.2	Explosion proof increased safety electrical part "nc AC", 50 mm	14.0	14.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	277
495915	4.0	Explosion proof increased safety electrical part "nc AC", 50 mm	13.0	11.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	276
495870	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
495875	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	274
496110	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	-	9.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
495865	1.1	Explosion proof electrical part "nc AC", low power, 22 mm	2.5	2.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5	270
496125	6.0	Explosion proof electrical part "nc AC", low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5 / T6	273
492670	2.0/2.1	Explosion proof encapsulated electrical part "mb", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4	280
482605	1.1	Explosion proof encapsulated electrical part "mb", 32 mm	5.0	4.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
482606	1.1	Explosion proof encapsulated electrical part "mb", low power, 32 mm	2.5	2.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
492070	2.0/2.1	Explosion proof encapsulated electrical part "mb", with water proof metal housing, 50 mm	8.0	9.0	-40°C to +65°C	-	IP67	II 2 GD Ex mb II T4 / T5	281
HZ10	2.0/2.1	Explosion proof encapsulated electrical part "mb", double frequency	8.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T3 / T5	282
HZ11	2.0/2.2	Explosion proof encapsulated electrical part "mb", double frequency	14.0	14	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T3 / T5	283
497105	10.3	Flame proof electrical part "db", 50 mm	8.0	8.0	-50°C to +80°C	-	IP66	Ex db IIC T4 / T5 / T6	278
493640	2.0/2.1	Flame proof encapsulated electrical part "db mb", double frequency	8.0	8.0	-40°C to +75°C	-	IP65	II 2 GD Ex db mb IIC T4 / T5	288
495905	2.0/2.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	285
496560	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	286
496800	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	287
495900	6.0	Flame proof encapsulated electrical part "db mb", low power, 37 mm	2.0	2.5	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	284
496555	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	286
496700	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	287
494040	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +90°C	-	IP67	II 2 GD Ex eb IIC T3 / T4	289
483371	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex eb IIC T4	289
492190	2.0/2.1	Explosion proof increased safety and encapsulated elect. part "eb", 50 mm	9.0	11.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T3 / T4	292
492310	10.1	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	6.0	6.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T4 / T5	290
492210	9.0	Explosion proof increased safety and encapsulated electrical part "eb", " Booster", 50 mm	1.0 to 1.8	-	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T5 / T6	291
495910	8.0	Explosion proof intrinsically safe electrical part "ia", "booster", 37 mm	0.3 to 1.2	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	294
496565	9.0	Explosion proof intrinsically safe electrical part "ia", " Booster", 37 mm	0.77 to 2.58	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	295
483580.01	7.0	Explosion proof intrinsically safe electrical part "ia", 32 mm	3.0	-	-40°C to +55°C	-	IP65	II 1 GD Ex ia IIC T6	293
488650.01	7.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	0.3 to 3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	298
492965.01	9.0	Explosion proof intrinsically safe electrical part "ia", " Booster", 50 mm	0.3 to 2.3	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	296
482870.01	12.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	297
490885	7.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	298
492335	12.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	297

## LIST OF COIL GROUPS

Parker coils and electrical parts are classified by groups determining their compatibility with Parker solenoid valves.

Group	For application with
1.1	Standard valves or on 2000 Series with standard pilot
1.2	Standard valves or on 2000 Series for high flow
2.0	Standard valves or on 7000 Series with standard pilot
2.1	Standard valves or on 7000 Series, for coils 8 - 9 W
2.2	Standard valves or on 7000 Series, for coils 14 W
3.0	Standard valves or on 7000 Series with reduced power
4.0	Standard valves or on 7000 Series, for bistable (Impulse) coils or electrical parts
6.0	Special valves "97" or on 7000 Series, for Intrinsically safe coils or electrical parts
7.0	Special valves "90", for coils and intrinsically safe electrical parts
8.0	Special valves "97" or on 7000 Series, for Intrinsically safe coils or electrical parts with booster
9.0	Special valves "xx" or on 9000 Series, for Intrinsically safe coils or electrical parts with booster
10.1	Standard valves or on 9000 Series with standard pilot
10.2	Standard valves or on 9000 Series "db mb"
10.3	Special valves or on 8000 Series "d"
12.0	Standard valves or on 9000 Series with manual reset



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COILS 32 mm

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.



Specification		Standard			Double frequency		
Ref. (without DIN plug)		481865			483510		
Ref. (with DIN plug)		482725			482635		
Coil Group		2.0 / 2.1					
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).					
Class of insulation		F 155°C					
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A					
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.					
Elect. Power	DC	Pn (hot)	9 W			-	
		P (cold) 20°C	12 W			-	
	AC	Pn (holding)	8 W			9 W	
		Attraction cold	26 VA (9 W)			32 VA (10 W)	
Weight		130 g (without plug)					
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un		24/50	A2	12	C1	24/50, 24/60	P0
		48/50	A4	24	C2	48/50, 48/60	S4
		110/50	A5	48	C4	110-115/50, 120/60	S5
		220-230/50	3D	110	C5	220-240/50, 240/60	S6
		230/60	J3				

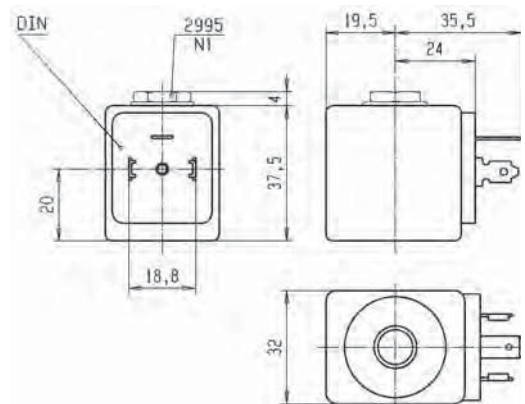
To Order a Coil choose Coil Ref + Voltage Code, example: 481865 for 24 VDC = 481865C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit Ref. 2995 corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.





COIL GROUP  
**2.0/2.1**  
**2.2**

## COILS FOR DIN PLUG CONNECTION



### HIGH TEMPERATURE COILS 32 mm

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.  
 See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		High temperature				High temp. + high power				
Ref. (without DIN plug)		492453				492425				
Ref. (with DIN plug)		492726				492727				
Coil Group		2.0 / 2.1				2.0 / 2.2				
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).								
Class of insulation		H 180°C								
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A								
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.								
Elect. Power	DC	Pn (hot)	9 W				14 W			
		P (cold) 20°C	12 W				21 W			
	AC	Pn (holding)	8 W				14 W			
		Attraction cold	26 VA (9 W)				55 VA (18 W)			
Weight		130 g (without plug)								
Voltagess "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code	
-10% to +10% of the Un		24/50	A2	12	C1	24/50	A2	24	C2	
		48/50	A4	24	C2	110/50	A5			
		110/50	A5	48	C4	230/50	F4			
		220/50-230/50	3D	110	C5					

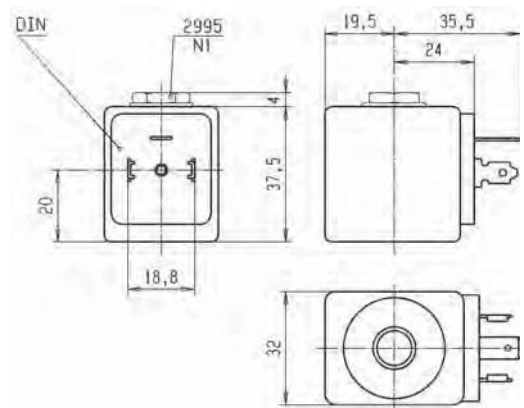
**To Order a Coil choose** Coil Ref + Voltage Code, example: 492453 for 24VDC= **492453C2**

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 2995** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.





**REDUCED POWER COIL 32 mm**

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

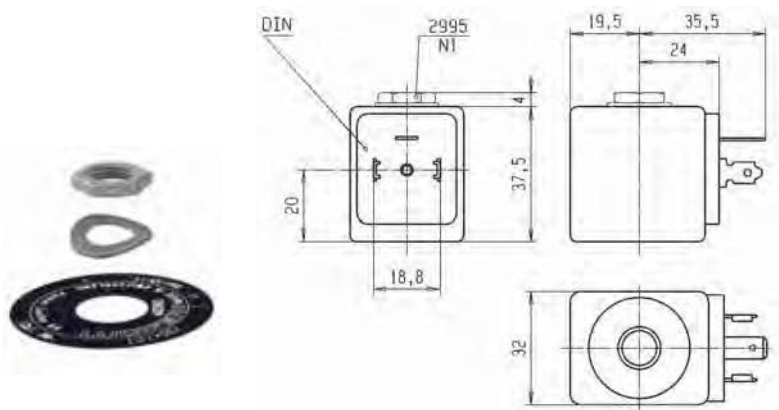
Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		Reduced power			
Ref. (without DIN plug)		482730			
Ref. (with DIN plug)		482735			
Coil Group		3.0			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		F 155°C			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	7 W		
		P (cold) 20°C	9 W		
	AC	Pn (holding)	6 W		
		Attraction cold	20 VA (7 W)		
Weight		130 g (without plug)			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50	A2	24	C2
		48/50	A4	48	C4
		110/50-115/50	A7		
		220-230/50	3D		

To Order a Coil choose Coil Ref + Voltage Code, example: 482730 for 24VDC = 482730C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.



These coils must be used with suitable housings, see example below: Ref. 2995



**LOW POWER COIL 32 mm**

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



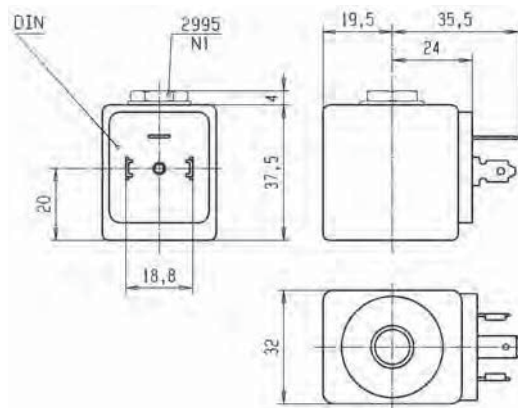
Specification		Miniwatt	
Reference (without DIN plug)		482740	
Reference (with DIN plug)		482745	
Coil Group		6.0	
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).	
Class of insulation		F 155°C	
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A	
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.	
Elect. Power	DC	Pn (hot)	1.6 W
		P (cold) 20°C	2.1 W
	AC	Pn (holding)	-
		Attraction cold	-
Weight		130 g (without plug)	
Voltages "Un"		VDC	Code
-10% to +10% of the Un		24	C2
		48	C4
		110	C5

To Order a Coil choose Coil Ref + Voltage Code, example: 482740 for 24VDC = 482740C2  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit Ref. 2995 corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.





**UL COIL 32 mm**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector to be ordered separately (see coil accessories section)



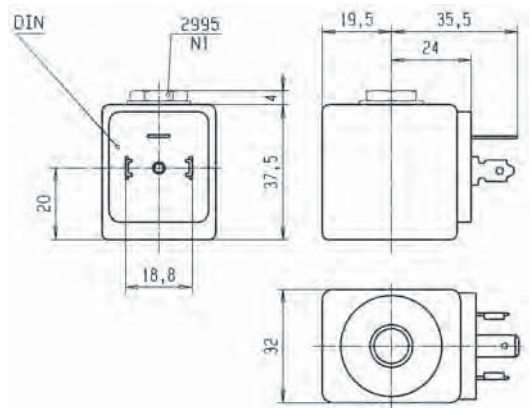
Specification		UL-recognized coil - UL File E200N - designation AMIF			
Reference (without DIN plug)		491514			
Coil Group		2.0 / 2.1			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		F (155°C)			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A			
Ambient temperature		-40°C to 50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	-	12 W	
		P (cold) 20°C	-	16 W	
	AC	Pn (holding)	11 W	-	
		Attraction cold	40 VA (13 W)	-	
Weight		130 g (without plug)			
Voltages "Un"		VAC/Hz	Code	VDC	Code
- 15% to +10% of the Un		110/50-120/60 220/50-240/60	P3 Q3	24	C2

To Order a Coil choose Coil Ref + Voltage Code, example: 491514 for 24VDC = 491514C2  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit Ref. 2995 with non UL valve and Ref. 2995.03 with UL valve correspond to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.



## COIL 32 mm FOR JET VALVES

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector to be ordered separately (see coil accessories section)



Specification		32 mm coil 14 W			
Reference		483816			
Coil Group		2.2			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		F 155°C			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type A			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	14 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	14 W		
		Attraction cold	-		
Weight		160 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50	A2	24 V	C2

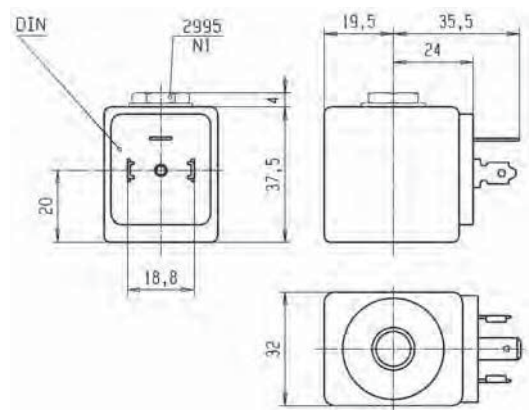
To Order a Coil choose Coil Ref + Voltage Code, example: 483816 for 24VDC = 483816C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 2995** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.





COILS 22 mm

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc. Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc. Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.



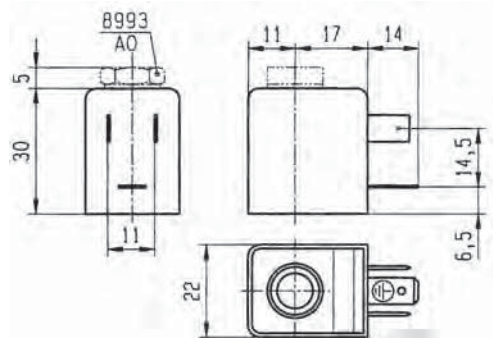
Specification		Low power			High power				
Ref. (without DIN plug)		488980			481180				
Ref. (with DIN plug)		481045			481530				
Coil Group		1.1							
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).							
Class of insulation		F 155°C							
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.							
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.							
Elect. Power	DC	Pn (hot)	2.5 W			5 W			
		P (cold) 20°C	3 W			6.5 W			
	AC	Pn (holding)	2 W			4 W			
		Attraction cold	5.7 VA (2.5 W)			8.9 VA (5 W)			
Weight		100 g with DIN Plug							
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50	A2	24	C2	24/50	A2	24	C2
		48/50	A4	48	C4	110/50-115/50	0A		
		110/50-115/50	0A	110	C5	220/50-230/50	3D		
		220/50-230/50	3D						

To Order a Coil choose Coil Ref + Voltage Code, example: 488980 for 24VDC = 488980C2  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit Ref. 8993 corresponds to the numbering system for Lucifer® valve housings (Valve - housing - coil/voltage).

It is composed of a nameplate with the details of the valve type, a washer and a nut to secure the 22 mm coil to the valve.





## UL COIL 22 mm

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

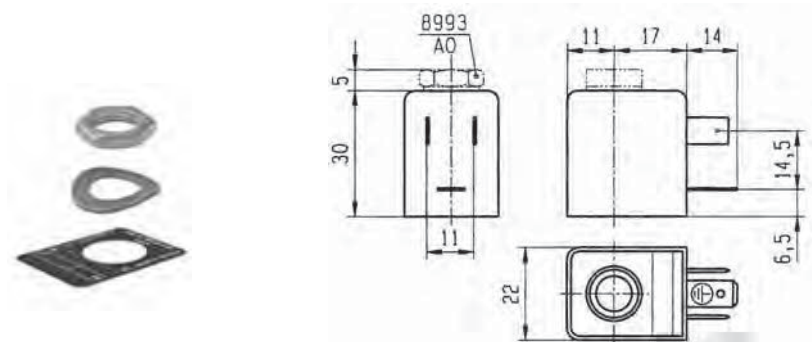
The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.  
Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.  
Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		Standard UL (only if used with 321K, 121M, 131M valves)			
Reference (without DIN plug)		492912			
Reference (with DIN plug)		492919			
Coil Group		1.1			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		A 105°C for UL/CSA			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	4 W		
		P (cold) 20°C	4,5 W		
	AC	Pn (holding)	3 W		
		Attraction cold	7.5 VA (4 W)		
Weight		100 g with DIN Plug			
Voltages "Un"		VAC/Hz	Code	VDC	Code
- 15% to +10% of the Un		24/50-24/60	P0	24	C2
		48/50-48/60	S4		
		115/50-120/60	P8		
		230/50-240/60	T1		

**To Order a Coil choose** Coil Ref + Voltage Code, example: 492912 for 24VDC = **492912C2**

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.



These coils must be used with suitable housings, see example below: Ref. 8993



**DOUBLE FREQUENCY COIL 22 mm**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector to be ordered separately (see coil accessories section).



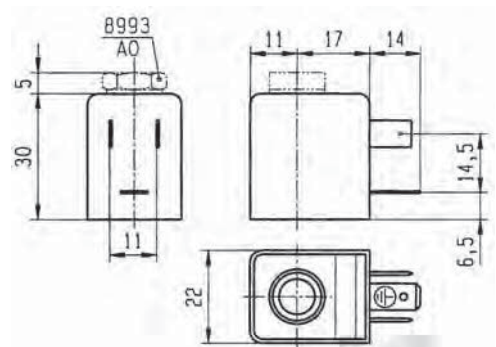
Specification		Double frequency	
Reference (without DIN plug)		483590	
Coil group		1.1	
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).	
Class of insulation		F 155°C	
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.	
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.	
Elect. Power	DC	Pn (hot)	-
		P (cold) 20°C	-
	AC	Pn (holding)	3 W
		Attraction cold	7.5 VA (4 W)
Weight		100 g with DIN Plug	
Voltages "Un"		VAC/Hz	Code
-10% to +10% of the Un		24/50-60	P0
		48/50-60	S4
		110-115/50, 120/60	S5
		220-240/50, 240/60	S6

**To Order a Coil choose** Coil Ref + Voltage Code, example: 483590 for 24/50,24/60 = **483590P0**  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 8993** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 22 mm coil and the valve.







## DOUBLE FREQUENCY COIL 22 mm

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc. Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector to be ordered separately (see coil accessories section).



Specification		Double frequency	
Reference (without DIN Plug)		488143	
Coil group		1.1	
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).	
Class of insulation		F 155°C	
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.	
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.	
Elect. Power	DC	Pn (hot)	-
		P (cold) 20°C	-
	AC	Pn (holding)	2.5 W
		Attraction cold	-
Weight		60 g	
Voltages "Un"		VAC/Hz	Code
-10% to +10% of the Un		100/50-60	P1
		200/50-60	P6

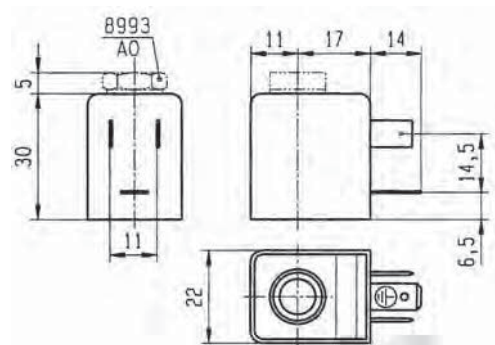
**To Order a Coil choose** Coil Ref + Voltage Code, example: 488143 for 100/50-60 = **488143P1**

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see example below:

The coil assembly kit **Ref. 8993** corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 22 mm coil and the valve.





**DOUBLE FREQUENCY COIL 22 mm**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

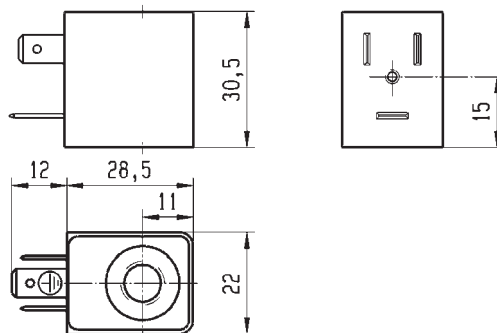
This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc. Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc. Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive. DIN plug connector to be ordered separately (see coil accessories section).



Specification		Double frequency			
Reference (without DIN Plug)		496131			
Coil group		1.2			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		F 155°C			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	3 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	3 W		
		Attraction cold	-		
Weight		60 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50-60	P0	24 V	C2
		110/50-60	P2	48 V	C4
		230/50-60	P9	110 V	C5
		48/50-60	S4		

**To Order a Coil choose** Coil Ref + Voltage Code, example: 496131 for 24VDC = **496131C2**  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.





**DOUBLE FREQUENCY COIL 22 mm**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This coil is designed for valves equipped with a miniature tube assembly (2000 series valves). This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector included.

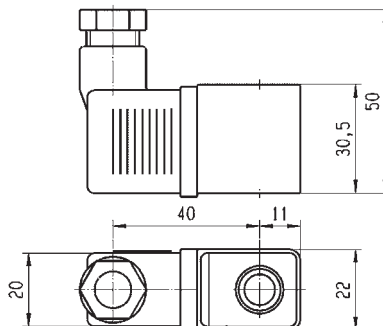


Specification		Double frequency			
Reference		496482			
Coil group		1.2			
Degree of protection		IP65 according to IEC / EN 60529 standards (with DIN plug).			
Class of insulation		F 155°C			
Electrical connection		The coil is connected with a 2 P + E plug according to EN 175301-803 type B.			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	3 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	3 W		
		Attraction cold	-		
Weight		75 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50-60	P0	24 V	C2
		110/50-60	P2	48 V	C4
		230/50-60	P9	110 V	C5
		48/50-60	S4		

To Order a Coil choose Coil Ref + Voltage Code, example: 496482 for 24VDC = 496482C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

"The housing kit is already included in the valve reference, it is not needed to order it separately."



10.1

COILS FOR  
DIN PLUG CONNECTION



COIL FOR OIL AND GAS 37 mm

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

DIN plug connector included.

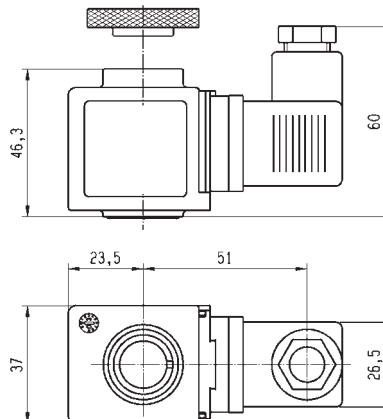


Specification		Coil for Oil and Gas			
Reference (with DIN plug)		496895			
Coil group		10.1			
Degree of protection		IP65 according to IEC / EN 60529 standards			
Class of insulation		H 180°C			
Electrical connection		With DIN plug 492459 (AC) or 486586 (DC)			
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	8 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	8 W		
		Attraction cold	-		
Weight		273 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		230/50-60	P9	24	C2
		110/50-60	P2	48	C4
		24/50-60	P0	110	C5
		48/50-60	S4		

To Order a Coil choose Coil Ref + Voltage Code, example: 496895 for 24VDC = 496895C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

The fixing nut (housing kit) is already included in the coil kit.





**COIL 32 mm IP67**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

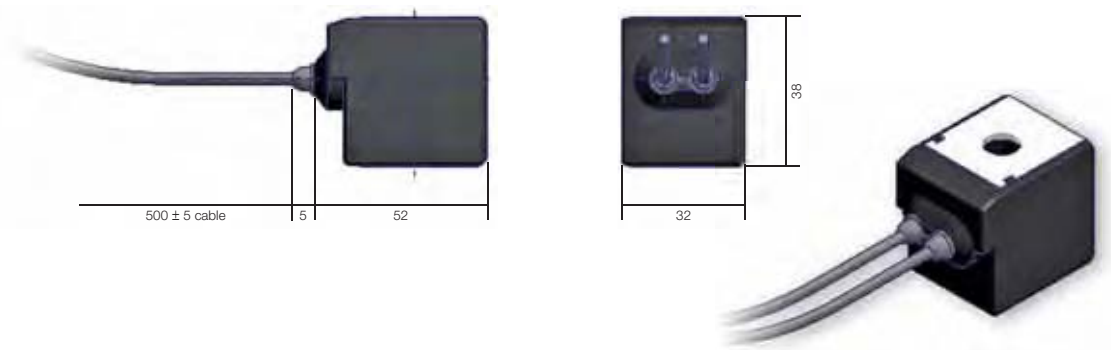
Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		Coil with two 500 mm flying leads			
Reference		496081			
Coil Group		2.0 / 2.1			
Degree of protection		IP67 according to IEC / EN 60529 standards			
Class of insulation		F 155°C			
Ambient temperature		- 10 °C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	9 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	9 W		
		Attraction cold	32 VA		
Weight		180 g			
Voltages "Un"		VAC/Hz	Order Number	VDC	Order Number
-10% to +10% of Un for AC		24/50 - 24/60	439816	24	439818
- 5 % to + 10 % for Un DC		110-115/50 - 120/60	439820	12	439814
		220-240/50 - 240/60	439822		

**To Order a Coil:** Use 6 digits ordering number - **Code Example:** 496081 for 24VDC = **439818**  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

For Parker Lucifer® valves please order housing Ref: 2995





**COIL 32 mm IP67 UL**

This coil can be mounted with every Parker solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

This is an encapsulated assembly comprising a coil, integral magnetic iron path and snap-on plug connection.

The synthetic material encapsulation provides an effective compact housing, offering full protection against dust, oil, water, etc.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

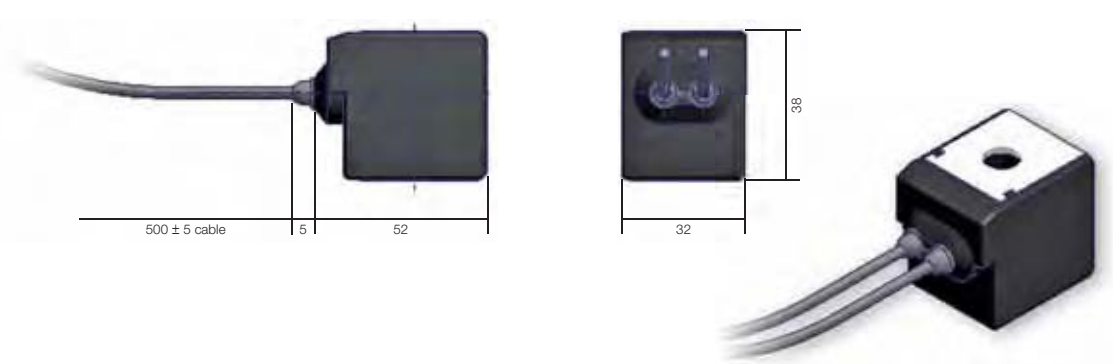
Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		UL Coil with two 500 mm flying leads			
Reference		496082			
Coil Group		2.0 / 2.2			
Degree of protection		IP67 according to IEC / EN 60529 standards			
Class of insulation		F 155°C			
Ambient temperature		-10°C to +50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	16 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	13-14 W		
		Attraction cold	40 VA		
Weight		180 g			
Voltages "Un"		VAC/Hz	Order Number	VDC	Order Number
-10% to +10% of Un for AC - 5 % to + 10 % for Un DC		24/60	439826	24	439832
		110/50 - 120/60	439828		
		208-240/60	439824	12	439830
		220/50 - 240/60	439834		

**To Order a Coil:** Use 6 digits ordering number - Code Example: 496082 for 24VDC= 439832  
More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

For Parker Lucifer® valves please order housing Ref: 2995





**STANDARD COILS 40 mm**

These coils can be mounted with every Parker Solenoid Valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

They can be mounted with all metal housings.

The coil winding is completely encapsulated in synthetic material.

Easy mounting in confined spaces. Electrical connection with screw terminals for wire up to 1.5 mm<sup>2</sup>.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

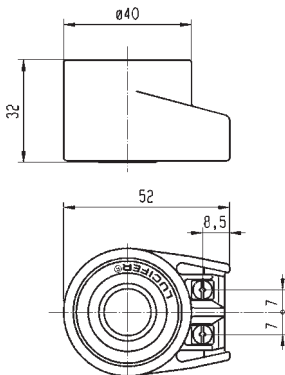


Specification		Standard			Double Frequency		
Reference		481000			483520		
Coil Group		2.0 / 2.1					
Class of insulation		F 155°C					
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve..					
Elect. Power	DC	Pn (hot)	8W		-		
		P (cold) 20°C	9W		-		
	AC	Pn (holding)	8W		9W		
		Attraction cold	32 VA (9 W)		36 VA (10 W)		
Weight		130 g			130 g		
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un		24/50	A2	24	C2	24/50-60	P0
		48/50	A4	48	C4	48/50-60	S4
(-15 % to +5 % for double-frequency coil with voltage code S6 if 240 V/50/Hz is used).		110/50-115/50	0A	110	C5	110-115/50-120/60	S5
		220/50-230/50	3D			220-240/50-240/60	S6

To Order a Coil choose Coil Ref + Voltage Code, example: 481000 for 24VDC = 481000C2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see examples below:



Ref. 4270 - Protectio IP 44 according to IEC / EN 60529 standard (with cable gland)



Ref. 4538 - Protectio IP 67 according to IEC / EN 60529 standard



**HIGH POWER COILS 40 mm**

This coil can be mounted with every Parker Solenoid Valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

They can be mounted with all metal housings.

The coil winding is completely encapsulated in synthetic material.

Easy mounting in confined spaces. Electrical connection with screw terminals for wire up to 1.5 mm<sup>2</sup>.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

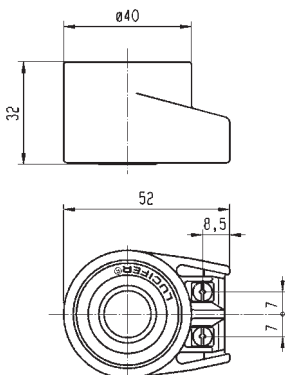


Specification		High Power	
Reference		481044	
Coil Group		2.0 / 2.2	
Class of insulation		F 155°C	
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.	
Elect. Power	DC	Pn (hot)	-
		P (cold) 20°C	-
	AC	Pn (holding)	14 W
		Attraction cold	56 VA (20 W)
Weight		130 g	
Voltages "Un"		VAC/Hz	Code
-10% to +10% of the Un		24/50	A2
		110/50	A5
		220/50	A7
		230/50	F4

To Order a Coil choose Coil Ref + Voltage Code, example: 481044 for 24VAC/50Hz = 481044A2

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see examples below:



Ref. 4270 - Protectio IP 44 according to IEC / EN 60529 standard (with cable gland)



Ref. 8520 - Protectio IP 67 according to IEC / EN 60529 standard



COIL GROUP  
**2.0/2.1**  
**2.2**

COILS WITH  
 SCREW TERMINALS



**HIGH TEMPERATURE COILS 40 mm**

These coils can be mounted with every Parker Solenoid Valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

They can be mounted with all metal housings.

The coil winding is completely encapsulated in synthetic material.

Easy mounting in confined spaces. Electrical connection with screw terminals for wire up to 1.5 mm<sup>2</sup>.

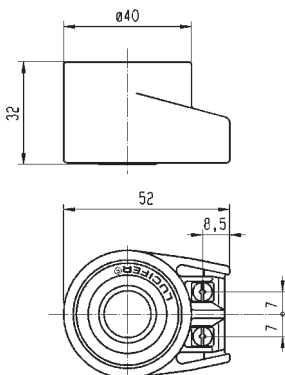
Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.



Specification		High Temperature			High Temperature & High Power				
Reference		485100			486265				
Coil Group		2.0 / 2.1			2.0 / 2.2				
Class of insulation		H 180°C							
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.							
Elect. Power	DC	Pn (hot)	8 W		14 W				
		P (cold) 20°C	9 W		21 W				
	AC	Pn (holding)	8 W		14 W				
		Attraction cold	32 VA (9 W)		56 VA (20 W)				
Weight		140 g							
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50	A2	24	C2	24/50	A2	12	C1
		110/50-115/50	0A			110/50	A5	24	C2
		220/50-230/50	3D			220/50	A7	48	C4
						230/50	F4		

To Order a Coil choose Coil Ref + Voltage Code, example: 485100 for 24VAC/50Hz = 485100A2  
 More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see examples below:



Ref. 4270 - Protectio IP 44 according to IEC / EN 60529 standard (with cable gland)



Ref. 8520 - Protectio IP 67 according to IEC / EN 60529 standard



**COIL DOUBLE FREQUENCY 40 mm H CLASS**

This coil can be mounted with every Parker Solenoid Valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

They can be mounted with all metal housings.

The coil winding is completely encapsulated in synthetic material.

Easy mounting in confined spaces. Electrical connection with screw terminals for wire up to 1.5 mm<sup>2</sup>.

Coils conform to the IEC/CENELEC safety standards and complies with European low-voltage directive.

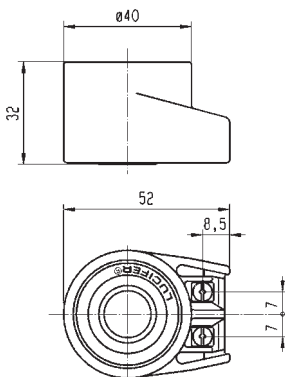


Specification		Double Frequency 100 V - 200 V	
Reference		488553	
Coil Group		2.0/2.1	
Class of insulation		H 180°C	
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.	
Elect. Power	DC	Pn (hot)	-
		P (cold) 20°C	-
	AC	Pn (holding)	9 W
		Attraction cold	-
Weight		130 g	
Voltages "Un"		VAC/Hz	Code
-10% to +10% of the Un		100/50-60	P1
		200/50-60	P6

To Order a Coil choose Coil Ref + Voltage Code, example: 488553 for 110/50-60 = 488553P1

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

These coils must be used with suitable housings, see examples below:



Ref. 4270 - Protection IP 44



Ref. 8520 - Protection IP 54



**BISTABLE COILS 40 mm FOR IMPULSE APPLICATIONS**

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

These coils are specially designed for Lucifer® bistable (or impulse or magnetic latch) solenoid valves for Heating Applications.



Specification		Bistable (Impulse)		
Reference		484990		485400
Coil Group		4.0		
Class of insulation		F 155°C		
Ambient temperature		-40°C to +50°C The application is limited also by the temperature range of the valve.		
Length of impulses		Switch on (terminals A-B): minimum 50 ms Switch off (terminals A-C): minimum 35 ms		
Electr. Power consumption	DC	Attraction (hot)	-	13 W
		Attraction (cold)	-	19 W
		Release (hot)	-	8 W
		Release (cold)	-	10 W
	AC	Attraction (hot)	11 W	-
		Attraction (cold)	17 W	-
		Release (hot)	4 W	-
		Release (cold)	7 W	-
Weight		150 g		
Voltages "Un"	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un	24/50-24/60	P0	24	C2
	48/50-48/60	S4	48	C4
	110-115/50-115/60	1P	110	C5
	220-230/50-60	3P		

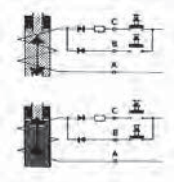
**To Order a Coil choose** Coil Ref + Voltage Code, example: 485400 for 24VDC = **485400C2**

More voltage possibilities can be found in the table of voltage codes at the end of the coil section.

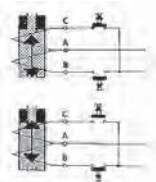
These coils must be used with suitable housings, see examples below:

**DIAGRAM**

Alternating Current



Direct Current



Only an electrical impulse given to terminals A-C reverses the magnetic field. This magnetic field demagnetises the reversible magnet enough to allow the return spring to bring the plunger back to its initial position and close the valve.

Ref. 4269 - Protection IP 44

Ref. 4538 - Protection IP 67



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ZONE 2/22

**ELECTRICAL PART LOW POWER 22 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:**

Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T5 is required.

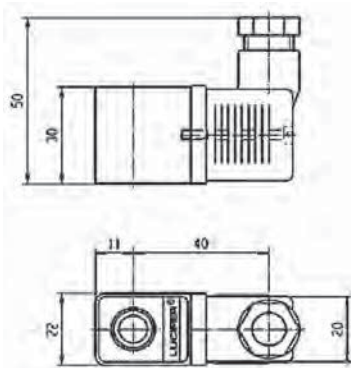
**Benefits:**

The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc. Small size for ease of mounting in confined spaces.



<b>Reference</b>		<b>495865</b>			
<b>Certificate</b>		<b>LCIE 05 ATEX 6003 X</b>			
<b>Coil Group</b>		<b>1.1</b>			
<b>Type of protection</b>	<b>Gas</b>	II 3 G - Ex nc AC IIC T5			
	<b>Dust</b>	II 3 D - Ex tc IIIC - T 95°C			
<b>Degree of protection</b>		<b>IP65</b> (with plug) according to IEC/EN 60529 Standards			
<b>Ambiant temperature</b>		-40°C to +50°C The application is limited also by the temperature range of the valve.			
<b>Insulation Class</b>		F 155°C			
<b>Electrical connection</b>		These coils with connection 2P + G - when mounted together with the supplied Pg 9 plug (delivered with the coil),			
<b>Elect. Power</b>	<b>DC</b>	<b>Pn</b> (hot)	2.5 W		
		<b>P</b> (cold) 20°C	3 W		
	<b>AC</b>	<b>Pn</b> (holding)	2 W		
		Attraction cold	5.7 VA (2.5 W)		
<b>Weight</b>		120 g			
<b>Voltages "Un"</b>		<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un		24/50	A2	24	C2
		48/50	A4	48	C4
		110/50-115/50	0A	110	C5
		220/50-230/50	3D		

To Order a Coil choose Coil Ref + Voltage Code, example: 495865 for 24VDC = 495865C2





**ELECTRICAL PART DOUBLE FREQUENCY 22 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:**

Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T5 is required.

**Benefits:**

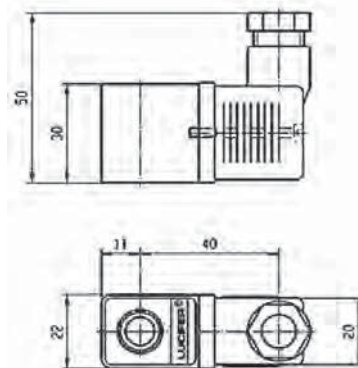
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc. Small size for ease of mounting in confined spaces.



**ZONE 2/22**

Specification		Double Frequency			
Reference		<b>496637</b>			
Certificate		<b>ATEX</b>			
Coil group		<b>1.2</b>			
Type of protection	Gas	II 3 G - Ex nc AC IIC T5			
	Dust	II 3 D - Ex tc IIIC - T 95°C			
Degree of protection		<b>IP65</b> (with plug) according to IEC/EN 60529 Standards			
Ambiant temperature		-20°C to +50°C The application is limited also by the temperature range of the valve.			
Insulation Class		F 155°C			
Elect. Power	DC	Pn (hot)	3 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	3 W		
		Attraction cold	5.7 VA (2.5 W)		
Weight		75 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50-60	P0	24 V	C2
		110/50-60	P2	48 V	C4
		230/50-60	P9	110 V	C5
		48/50-60	S4		

To Order a Coil choose Coil Ref + Voltage Code, example: 496637 for 24VDC = **496637C2**





**ELECTRICAL PART 32 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 to T4 is required.

Ease of mounting in confined space - offers shock and corrosion protection-simplifies conversion of existing equipment to other requirements, etc.

**Benefits:**

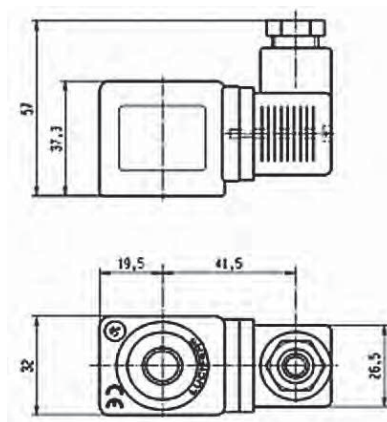
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc.

Small size for ease of mounting in confined spaces.



Reference	495870				496110	
Certificate	LCIE 05 ATEX 6003 X					
Coil Group	2.0 / 2.1					
Type of protection	Gas	II 3 G - Ex nc AC IIC T3 / T4			II 3 G - Ex nc AC IIC T3 / T4	
	Dust	II 3 D - Ex tc IIIC - T195°C / T130°C			II 3 D - Ex tc IIIC - T195°C / T130°C	
Degree of protection	IP65 (with plug) according to IEC/EN 60529 Standards					
Insulation Class	F (155°C)					
Duty cycle	100%					
Ambiant temperature	-40°C to +65°C / 50°C The application is limited also by the temperature range of the valve.					
Elect. Power	DC	Pn (hot)	9 W			-
		P (cold) 20°C	12 W			-
	AC	Pn (holding)	8 W			9 W
		Attraction cold	26 VA (9 W)			32 VA (10 W)
Weight	150 g					
Voltages "Un"	VAC/Hz	Code	VDC	Code	VAC/Hz	Code
-10% to +10% of the Un	24/50	A2	24	C2	24/50-60	P0
	48/50	A4	48	C4	48/50-60	S4
	110/50	A5	110	C5	110/50-60	S5
	220-230/50	3D			220/50-60	S6

To Order a Coil choose Coil Ref + Voltage Code 495870 24VDC = 495870C2







**ELECTRICAL PART LOW POWER 32 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T5 to T6 is required.

Ease of mounting in confined space - offers shock and corrosion protection-simplifies conversion of existing equipment to other requirements, etc. **Benefits:**

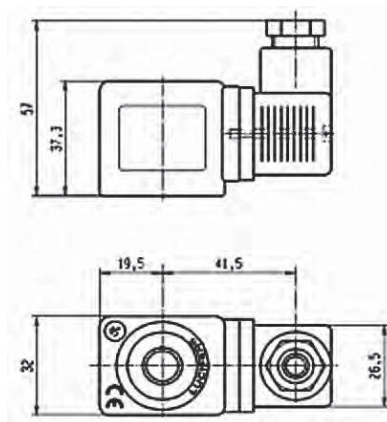
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc. Small size for ease of mounting in confined spaces.



**ZONE 2/22**

<b>Reference</b>	<b>496125</b>		
<b>Certificate</b>	<b>LCIE 05 ATEX 6003 X</b>		
<b>Coil group</b>	<b>6.0</b>		
<b>Type of protection</b>	<b>Gas</b>	II 3 G - Ex nc AC IIC T5 / T6	
	<b>Dust</b>	II 3 D - Ex tc IIIC - T80°C / T95°C	
<b>Degree of protection</b>	<b>IP65</b> (with plug) according to IEC/EN 60529 Standards		
<b>Insulation Class</b>	F (155°C)		
<b>Duty cycle</b>	100%		
<b>Ambiant temperature</b>	-40°C to +65°C / 50°C The application is limited also by the temperature range of the valve.		
<b>Elect. Power</b>	<b>DC</b>	<b>Pn</b> (hot)	1.6 W
		<b>P</b> (cold) 20°C	2.1 W
	<b>AC</b>	<b>Pn</b> (holding)	-
		Attraction cold	-
<b>Weight</b>	150 g		
<b>Voltages "Un"</b>	<b>VDC</b>	<b>Code</b>	
-10% to +10% of the Un	24	C2	
	48	C4	
	110	C5	

To Order a Coil choose Coil Ref + Voltage Code, example: 496125 for 24VDC = **496125C2**





**ELECTRICAL PART 32 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 to T4 is required.

Ease of mounting in confined space - offers shock and corrosion protection-simplifies conversion of existing equipment to other requirements, etc.

**Benefits:**

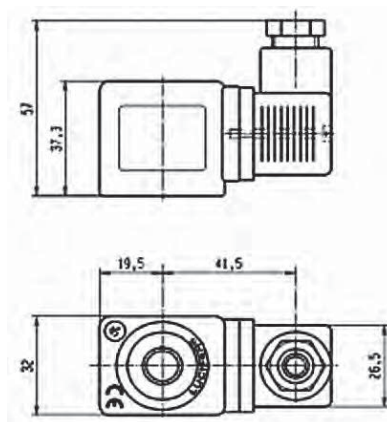
The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc.

Small size for ease of mounting in confined spaces.



Specification		32 mm Coil "nc AC"			
Reference		495875			
Certificate		LCIE 05 ATEX 6003 X			
Coil Group		2.0 / 2.1			
Type of protection	Gas	II 3 G - Ex nc AC IIC T3 / T4			
	Dust	II 3 D - Ex tc IIC - T195°C / T130°C			
Degree of protection		IP65 (with plug) according to IEC/EN 60529 Standards			
Insulation Class		F 155°C			
Duty cycle		100%			
Ambiant temperature		-40°C to +65°C / 50°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	7 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	6 W		
		Attraction cold	-		
Weight		180 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		220-230/50	3D	24	C2

To Order a Coil choose Coil Ref + Voltage Code, example: 495875 for 24VDC = 495875C2



COIL GROUP

2.0/2.2

NON ENCAPSULATED  
ELECTRICAL PARTS  
"nc AC"



## ELECTRICAL PART 32 mm

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nc AC IIC T3 is required.

Ease of mounting in confined space - offers shock and corrosion protection - simplifies conversion of existing equipment to other requirements, etc.

**Benefits:**

The synthetic material encapsulation of the coil provides an effective compact housing, offering full protection against dust, oil, water, etc.

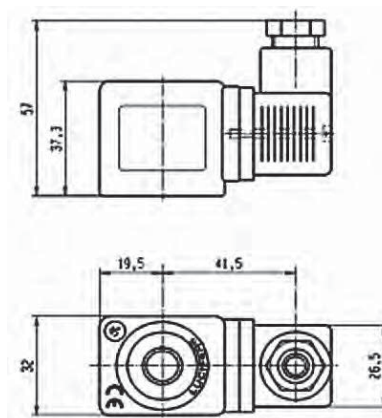
Small size for ease of mounting in confined spaces.



ZONE 2/22

Specification		32 mm Coil "nc AC"			
Reference		495880			
Certificate		LCIE 05 ATEX 6003X			
Coil Group		2.0 / 2.2			
Type of protection	Gas	II 3 G - Ex nc AC IIC T3			
	Dust	II 3D - Ex tc IIIC - T195°C			
Degree of protection		IP65 (with plug) according to IEC/EN 60529 Standards			
Insulation Class		H 180°C			
Duty cycle		100%			
Ambiant temperature		-40°C to +65°C The application is limited also by the temperature range of the valve.			
Elect. Power	DC	Pn (hot)	14 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	14 W		
		Attraction cold	-		
Weight		180 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/50	A2	24	C2
		110/50	A5		
		230/50	F4		

To Order a Coil choose Coil Ref + Voltage Code, example: 495880 for 24VDC = 495880C2





ZONE 2/22

**495915 - ELECTRICAL PARTS 50 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection - Ex nc AC IIC T3 is required.

**Benefits:** Rotatable housing 360°, epoxy varnished steel with internal and external screw terminals for earth connection.

Small size for ease of mounting in confined space. Simplifies conversion of existing equipment to hazardous area requirements.



<b>Reference</b>		<b>495915</b>		
<b>Certificate</b>		<b>LCIE 05 ATEX 6010 X</b>		
<b>Coil group</b>		<b>4.0</b>		
<b>Type of protection</b>	<b>Gas</b>	II 3 G - Ex nc AC IIC T3		
	<b>Dust</b>	II 3 D - Ex tc IIIC - T 195°C		
<b>Degree of protection</b>		<b>IP67</b> according to IEC/EN 60529 Standards		
<b>Ambient temperature</b>		-40°C to +65°C The application is limited also by the temperature range of the valve.		
<b>Insulation Class</b>		F 155°C		
<b>Electrical connection</b>		By special cable gland M20 x 1.5 on screw terminals for wires up to 1.5 mm <sup>2</sup> . Cable with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied		
<b>Consumption Electrique</b>	<b>AC</b>	Attraction (hot)	11 W	-
		Attraction (cold) 20°C	17 W	-
		Release (hot)	4 W	-
		Release (cold) 20°C	7 W	-
	<b>DC</b>	Attraction (hot)	-	13 W
		Attraction (cold) 20°C	-	19 W
		Release (hot)	-	8 W
		Release (cold) 20°C	-	10 W
<b>Weight</b>		320 g		
<b>Duty cycle</b>		Continuous duty solenoid (ED 100%)		
<b>Voltages "Un"</b>		<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>
-10% to +10% of the Un		110-115/50-60	1P	24
		220-230/50-60	3P	48
		48/50-60	S4	
		24/50-60	P0	
				<b>Code</b>
				C2
				C4

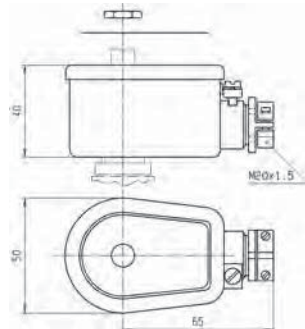
**To Order a Coil choose Coil Ref + Voltage Code,**  
example: 495915 for 24VDC = **495915C2**

**Schema**



As soon as an electrical impulse is given to the terminals A-B, the electromagnetical force attracts the plunger and simultaneously magnetizes a reversible permanent magnet ring. This magnet retains the plunger in place. It stays in position even without current. Only an electrical impulse given to terminals A-C reserves the magnetic field. This magnetic field demagnetises the reversible magnet enough to allow the return spring to bring the plunger back to its initial position and close the valve.

**Switch:** Switch on (terminals A-B): Minimum 50 ms (maximum 1 s)  
AC: Switch off (terminals A-C): Minimum 35 ms (maximum 1 s)



COIL GROUP

2.0/2.2

INCREASED SAFETY  
ELECTRICAL PARTS  
"nc AC"



3.5.1 ELECTRICAL PARTS 496155

These coils can be mounted with every Parker solenoid valves corresponding to the specified Coil Group.

See column "Coil Compatibility Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex nAC IIC T3 is required.

**Benefits:** Rotatable housing 360°, epoxy varnished steel with internal and external screw terminals for earth connection.

Small size for ease of mounting in confined space. Simplifies conversion of existing equipment to hazardous area requirements.

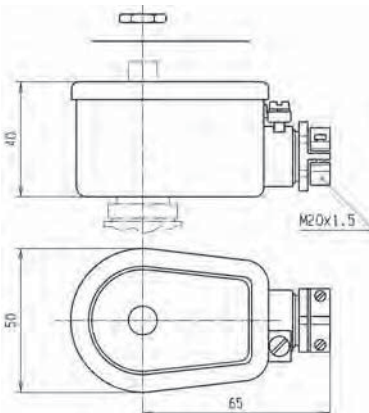


<b>Reference</b>		<b>496155</b>			
<b>Certificate</b>		<b>LCIE 05 ATEX 6010 X</b>			
<b>Coil Group</b>		<b>2.0/2.2</b>			
<b>Type of protection</b>	<b>Gas</b>	II 3 G D - Ex nc AC IIC T3			
	<b>Dust</b>	II 3 G D - Ex tc IIC - T 195 °C			
<b>Degree of protection</b>		<b>IP67</b> according to IEC/EN 60529 Standards			
<b>Ambiant temperature</b>		-40°C to +65°C The application is limited also by the temperature range of the valve.			
<b>Insulation Class</b>		F 155°C			
<b>Electrical connection</b>		By special cable gland or M20x1.5 on screw terminals for wires up to 1.5 mm <sup>2</sup> . Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied.			
<b>Elect. Power</b>	<b>DC</b>	<b>Pn (hot)</b>	14 W		
		<b>P (cold) 20°C</b>	21 W		
	<b>AC</b>	<b>Pn (holding)</b>	14 W		
		<b>Attraction cold</b>	56 VA (20 W)		
<b>Weight</b>		320 g			
<b>Voltages "Un"</b>		<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un		24/50	A2	24	C2
		110/50	A5	48	C4
		230/50	F4		

To Order a Coil choose Coil Ref + Voltage Code, example: 496155 for 24VAC/50Hz = 496155A2

Fuses:

Both electrical parts have to be connected in series with a safety fuse according to IEC 60127-3.



ZONE 2/22





**ELECTRICAL PART LOW POWER 22 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:**

Control of solenoid valves in dangerous areas where explosion-proof protection Ex mb II T4 or T5 is required.

**Benefits:**

Coil and magnetic circuit encapsulated in synthetic material - offering shock and corrosion protection. AC coils with integrated thermal fuse. Small size for ease of mounting in confined spaces.



<b>Reference</b>		<b>482605</b>		<b>482606 or 482606.160*</b>			
<b>Certificate</b>		<b>LCIE 02 ATEX 6014 X - IECEx LCI 07.0026 X</b>					
<b>Coil Group</b>		<b>1.1</b>					
<b>Type of protection</b>	<b>Gas</b>	<b>II 2 G - Ex mb IIC T4 / T5</b>					
	<b>Dust</b>	<b>II 2 D - Ex tb IIIC - T130°C / 95°C</b>					
<b>Degree of protection</b>		<b>IP65 (with plug) according to IEC/EN 60529 Standards</b>					
<b>Ambient temperature</b>		<b>-40°C to +65°C / +40°C</b>		<b>-40°C to +65°C / +35°C</b>			
		The application is limited also by the temperature range of the valve.					
<b>Insulation Class</b>		<b>F 155°C</b>					
<b>Electrical connection</b>		Cable connection (3 x 0.75 mm <sup>2</sup> ) encapsulated with coil, cable material according to application					
<b>Elect. Power</b>	<b>DC</b>	<b>Pn (hot)</b>	5 W		2.5 W		
		<b>P (cold) 20°C</b>	6.5 W		3 W		
	<b>AC</b>	<b>Pn (holding)</b>	4 W		2 W		
		<b>Attraction cold</b>	8.9 VA (5 W)		5.7 VA (2.5 W)		
		<b>Weight</b>	150 g				
<b>Voltages "Un"</b>		<b>VDC</b>	<b>Code</b>	<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un		12	C1	24/50	A2	24	C2
		24	C2	48/50	A4	48	C4
				110/50-115/50	0A	110	C5
				220/50-230/50	3D		

**To Order a Coil choose** Coil Ref + Voltage Code, example: 482605 for 24VDC = **482605C2**

\* 482606.160 - 6 m cable length

**Fuses:**

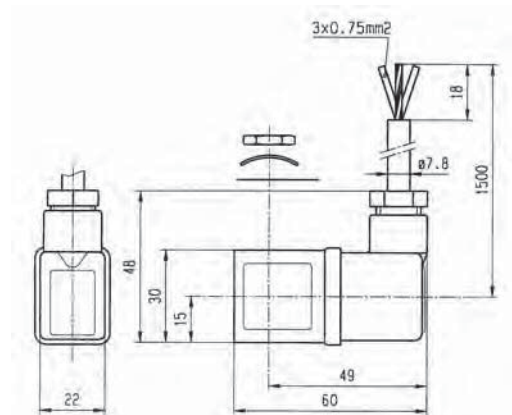
Both electrical parts 482605 & 482606 have to be connected in series with a safety fuse according to CEI 60127-3. Indicating example below:

**482605:**

- DC: 12 V, 1000 mA - 24 V, 500 mA - 48 V, 200 mA - 110 V, 100 mA
- AC 50 Hz: 24 V, 500 mA - 48 V, 250 mA - 110/115 V, 100 mA - 220/230 V, 3 mA
- AC 60 Hz: 24 V, 630 mA - 110/115 V, 125 mA - 220/230 V, 63 mA

**482606:**

- DC: 12 V, 400 mA - 24 V, 200 mA - 48 V, 100 mA - 110 V, 50 mA
- AC 50 Hz: 24 V, 250 mA - 48 V, 125 mA - 110/115 V, 63 mA - 220/230 V, 32 mA
- AC 60 Hz: 24 V, 315 mA - 110/115 V, 63 mA - 220/230 V, 32 mA





**ELECTRICAL PART 32 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex mb II T4 is required.

**Benefits:** Coil and magnetic circuit encapsulated in synthetic material offering shock and corrosion protection. AC/DC coils with integrated thermal fuse. DC coils with integrated surge suppression diode.

Small size for ease of mounting in confined spaces. This electrical



<b>Reference</b>		<b>492670</b>			
<b>Certificate</b>		<b>LCIE 02 ATEX 6015 X</b>			
<b>Coil Group</b>		<b>2.0 / 2.1</b>			
<b>Type of protection</b>	<b>Gas</b>	II 2 G - Ex mb IIC T4			
	<b>Dust</b>	II 2 D - Ex tb IIIC - T130°C			
<b>Degree of protection</b>		<b>IP65</b> (With DIN Plug connector) according to IEC/EN 60529 standards			
<b>Ambiant temperature</b>		-40°C to +40°C The application is limited also by the temperature range of the valve.			
<b>Class of insulation</b>		F 155°C			
<b>Electrical connection</b>		Cable connection (3 x 1.5 mm <sup>2</sup> ) encapsulated with coil, cable material according to application			
<b>Elect. Power</b>	<b>DC</b>	<b>Pn (hot)</b>	9 W		
		<b>P (cold) 20°C</b>	12 W		
	<b>AC</b>	<b>Pn (holding)</b>	8 W		
		<b>Attraction cold</b>	26 VA (9 W)		
<b>Weight</b>		320 g			
<b>Voltages "Un"</b>		<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un		48/50	A4	24	C2
		230/50	F4	48	C4
				110	C5

**To Order a Coil choose** Coil Ref + Voltage Code, example: 492670 for 24VDC = **492670C2**

\* 492670.3 m cable length  
\*\* 492670.160 - 6 m cable length

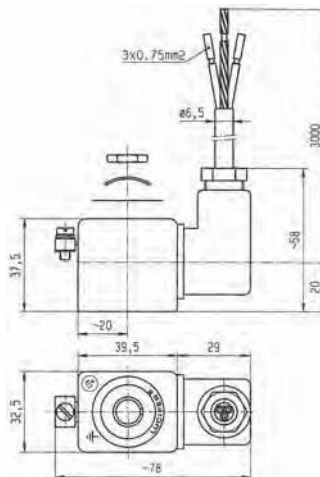
**Special conditions:**

The supply connection lines have to be fixed and positioned in such a way that they are protected against mechanical damages.

It is necessary to use a safety fuse with a nominal current corresponding to the coil current (max. 3 x nominal according to IEC 60127 and IEC 60269) against short-circuits.

**Recommended values:**

- DC: 12 V, 1250 mA - 24 V, 630 mA - 48 V, 315 mA - 110 V, 125 mA
- AC 50 Hz: 24 V, 1000 mA - 48 V, 500 mA - 110 V, 250 mA - 230 V, 100 mA
- AC 60 Hz: 240 V, 100 mA





COIL GROUP

**2.0/2.1**

**ENCAPSULATED  
ELECTRICAL PARTS  
"mb"**



**WITH WATER PROOF METAL HOUSING 50 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex mb II T4 or T5 is required.

**Benefits:** Epoxy-vernished steel housing - solenoid coil, rectifier (silicium diodes), fuse and varistor protection element are completely encapsulated in the coil housing by means of epoxy resin.

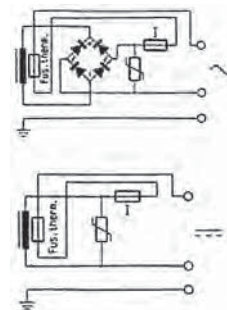
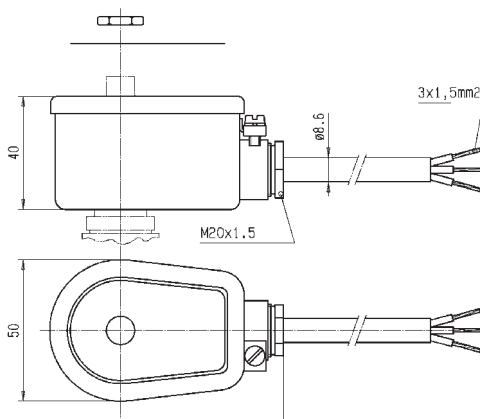
Small size for ease of mounting in confined space. Simplifies conversion of existing equipment to hazardous area requirements.



**ZONE 1/21**

Reference	492070 ( with 3m cable length ) 492070.160 ( with 6m cable length )			
Certificate	LCIE 02 ATEX 6017 X - IECEx LCI 09.0024 X			
Coil Group	2.0 / 2.1			
Type of protection	Gas	II 2 G - Ex mb IIC T4/ T5		
	Dust	II 2 D - Ex tb IIIC - T130 / 95°C		
Degree of protection	IP67 according to IEC/EN 60529 standards			
Ambient temperature	-40°C to +65°C / 40°C The application is limited also by the temperature range of the valve.			
Insulation Class	F 155°C			
Electrical connection	Cable connection (3 x 1.5 mm <sup>2</sup> ) with cable gland M20 x 1.5, external earth screw connection.			
Elect. Power	DC	Pn (hot)	8 W	
		P (cold) 20°C	10 W	
	AC	Pn (holding)	9 W	
		Attraction cold	11 W	
Weight	500 g			
Voltages "Un"	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un	24/50-60	P0	24	C2
	110/50-60	P2	48	C4
	220/50-60	R5	110	C5
	230/50-60	P9		
	240/50-60	Q1		

To Order a Coil choose Coil Ref + Voltage Code, example: 492070 for 24VDC = 492070C2



**HZ10 COIL DOUBLE FREQUENCY**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

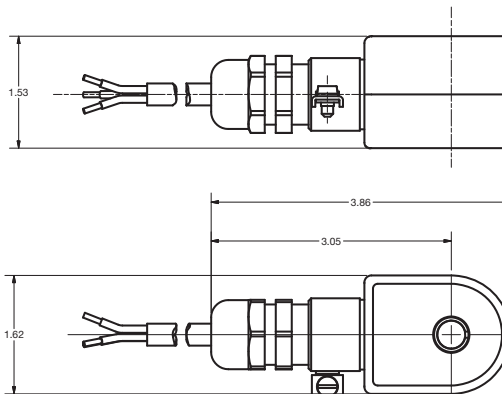
**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex mb II T4 or T5 is required.

The coil is delivered with a 3m cable.



Specification		Double Frequency			
Reference		HZ10			
Certificate		LCIE 02 ATEX 6020 X - IECEx LCI 08.0027 X			
Coil Group		2.0 / 2.1			
Type of protection	Gas	II 2 G - Ex mb IIC T3/T4/T5			
	Dust	II 2 D - Ex tb IIIC T195°C / 130°C / 95°C			
Degree of protection		IP65 (with plug) according to IEC/EN 60529 Standards			
Ambient temperature		-40°C to +80°C / 65°C / 40°C The application is limited also by the temperature range of the valve.			
Insulation Class		H 180°C			
Duty cycle		100% continuous			
Electrical connection		Cable connection (3 x 1.5 mm <sup>2</sup> ) with cable gland M20 x 1.5, external earth screw connection.			
Elect. Power	DC	Pn (hot)	8 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	8 W		
		Attraction cold	-		
Weight		299 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/60	B2	12	C1
		110/50-120/60	P3	24	C2
		220/50-240/60	Q3	120	C6

To Order a Coil choose Coil Ref + Voltage Code, example: HZ10 for 24VDC = HZ10C2



Dimensions in Inches.

COIL GROUP

**2.0/2.2**

**ENCAPSULATED  
ELECTRICAL PARTS  
"mb"**



## HZ11 COIL DOUBLE FREQUENCY

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex mb II T4 or T5 is required.

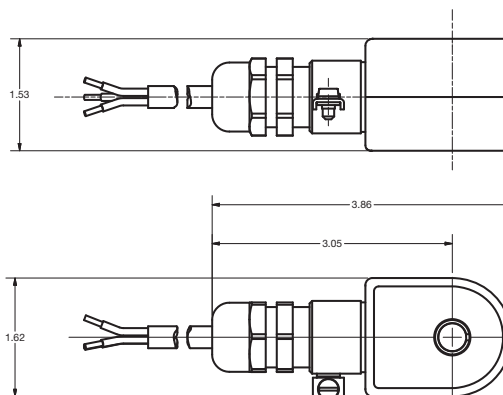
The coil is delivered with a 3m cable.



**ZONE 1/21**

Specification		Double Frequency			
Reference		HZ11			
Certificate		LCIE 02 ATEX 6020 X - IECEx LCI 08.0027 X			
Coil Group		2.0 / 2.2			
Type of protection	Gas	II 2 G - Ex mb IIC T4/T5			
	Dust	II 2 D - Ex tb IIIC T130°C / 95°C			
Degree of protection		IP65 (with plug) according to IEC/EN 60529 Standards			
Ambient temperature		-40°C to + 65°C / 40°C The application is limited also by the temperature range of the valve..			
Insulation Class		H 180 °C			
Duty cycle		100% continuous			
Elect. Power	DC	Pn (hot)	14 W		
		P (cold) 20°C	-		
	AC	Pn (holding)	14 W		
		Attraction cold	-		
Weight		299 g			
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		24/60	B2	12	C1
		110/50-120/60	P3	24	C2
		220/50-240/60	Q3	120	C6

**To Order a Coil:** Coil Ref + Voltage Code, example: HZ11 for 24VDC = **HZ11C2**



Dimensions in Inches.

**FLAME PROOF ENCAPSULATED  
ELECTRICAL PARTS**  
"db mb"



**ZONE 1/2/1**

**495900 - LOW POWER ELECTRICAL PARTS 37 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb IIC T4 to T6 is required.

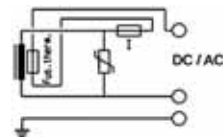
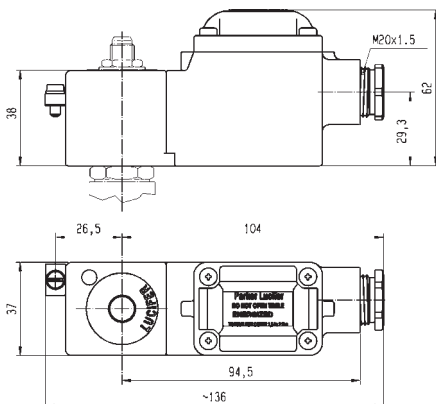
**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

The plastic housing is delivered with M20 x 1.5 cable gland certified for use "db" protection. Small size for ease of mounting in confined space.



Reference		495900 VAC		495900 VDC	
Certificate		LCIE 03 ATEX 6451 X - IECEx LCI 06.0004 X			
Coil Group		6.0			
Type of protection	Gas	II 2 G - Ex db mb IIC T4 / T5 / T6		II 2 G - Ex db mb IIC T4 / T5 / T6	
	Dust	II 2 D Ex tb IIIC - 130°C / 95°C / 80°C		II 2 D Ex tb IIIC - T130°C / 95°C / 80°C	
Degree of protection		IP67 according to IEC/EN 60529 Standards			
Ambient temperature		-40°C to +80°C / 55°C / 40°C		-40°C to +80°C / 65°C / 55°C	
Class of insulation		The application is limited also by the temperature range of the valve. H (180 °)			
Electrical connection		Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 5 mm, Ømax. 11 mm, section max. 2.5 mm²) in the connection box passes by the built in M20 x 1.5 cable gland			
Elect. Power	DC	Pn (hot)	-	2 W	
		P (cold) 20°C	-	2.5 W	
	AC	Pn (holding)	2.5 W	-	
		Attraction cold	3 W	-	
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of Un for AC		24/50	A2	24	C2
-10 % to + 10 % for Un DC.		48/50	A4	48	C4
		115/50	E5	110	C5
		230/50	F4		

**To Order a Coil:** Coil Ref + Voltage Code 495900 24VDC = 495900C2



**COIL GROUPS**

**2.0/2.1**

**FLAME PROOF ENCAPSULATED  
ELECTRICAL PARTS  
"db mb"**



**495905 - ELECTRICAL PARTS 37 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb IIC T4 is required.

**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

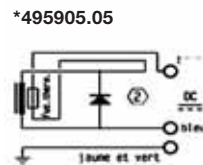
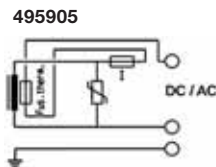
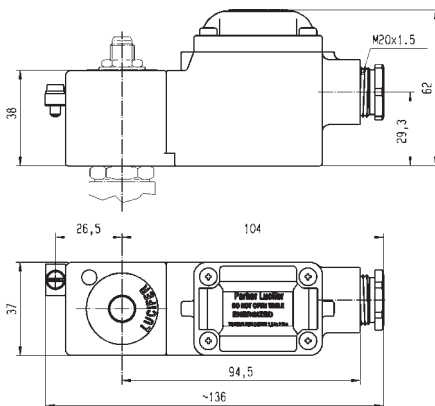
The plastic housing is delivered with M20 x 1.5 cable gland certified for use "db" protection. Small size for ease of mounting in confined space.



**ZONE 1/21**

Reference		495905		495905.05	
Certificate		LCIE 03 ATEX 6451 X - IECEx LCI 06.0004 X			
Coil Group		2.0 / 2.1			
Type of protection	Gas	II 2 G - Ex db mb IIC T4			
	Dust	II 2 D - Ex tb IIIC - 130°C			
Degree of protection		IP67 according to IEC/EN 60529 Standards			
Ambient temperature		-40°C to +80°C The application is limited also by the temperature range of the valve.			
Class of insulation		H (180 °)			
Electrical connection		Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 5 mm, Ømax. 11 mm, section max. 2.5 mm²) in the connection box passes by the built in M20 x 1.5 cable gland.			
Elect. Power	DC	Pn (hot)	8 W		
		P (cold) 20°C	9 W		
	AC	Pn (holding)	8 W		
		Attraction cold	9 W		
Voltages "Un"		VAC/Hz	Code	VDC	Code
-10% to +10% of Un for AC - 10 % to + 10 % for Un DC.		24/50	A2	24	C2
		48/50	A4	48	C4
		115/50	E5	110	C5
		230/50	F4		

**To Order a Coil choose** Coil Ref + Voltage Code, example: 495905 for 24VDC = **495905C2**



**FLAME PROOF ENCAPSULATED  
ELECTRICAL PARTS  
"db mb"**



**ZONE 1/21**

**496555 & 496560 - ELECTRICAL PARTS 37 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb IIC T4 to T6 is required.

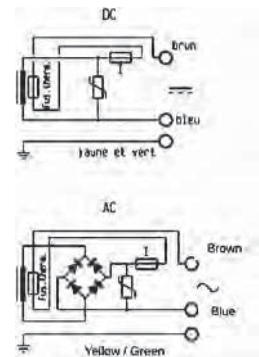
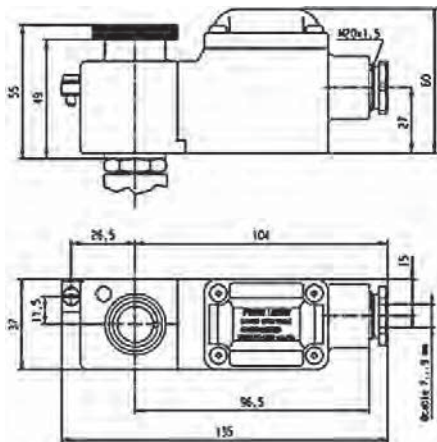
**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

The plastic housing is delivered with M20 x 1.5 cable gland certified for use "db" protection. Small size for ease of mounting in confined space.



Reference		496555			496560				
Certificate		LCIE 07 ATEX 6075 X - IECEx LCI 07.0014X							
Coil Group		10.2			10.1				
Type of protection	Gas	II 2 G - Ex db mb IIC T4 / T5 / T6			II 2 G - Ex db mb IIC T4				
	Dust	II 2 D - Ex tb IIIC - T130°C / 95°C / 80°C			II 2 D - Ex tb IIIC - T130°C				
Degree of protection		IP 67 according to IEC/EN 60529 Standards							
Ambiant temperature		-40°C to +65 / 50 / 35°C			-40°C to +65°C				
Class of insulation		H (180 °)							
Electrical connection		Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 5 mm, Ømax. 11 mm, section max. 2.5 mm²) in the connection box passes by the built in M20 x 1.5 cable gland.							
Elect. Power	DC	Pn (hot)	-	6 W	-	-	8 W		
		P (cold) 20°C	-	7.5 W	-	-	10.5 W		
	AC	Pn (holding)	6 W	-	-	8 W	-		
		Attraction cold	7.5 W	-	-	10.5 W	-		
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		230/50-60	P9	24	C2	230/50-60	P9	24	C2
		110/50-60	P2	48	C4	110/50-60	P2	48	C4
		24/50-60	P0	110	C5	24/50-60	P0	110	C5
		48/50-60	S4			48/50-60	S4		

To Order a Coil choose Coil Ref + Voltage Code, example: 496555 for 24VDC = 496555C2



COIL GROUP

**10.2/10.1**

**FLAME PROOF ENCAPSULATED  
ELECTRICAL PARTS  
"db mb"**



**496700 & 496800 - ELECTRICAL PARTS 37 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb IIC T4 to T6 is required.

**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

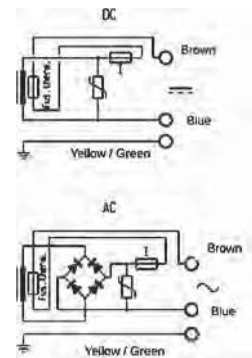
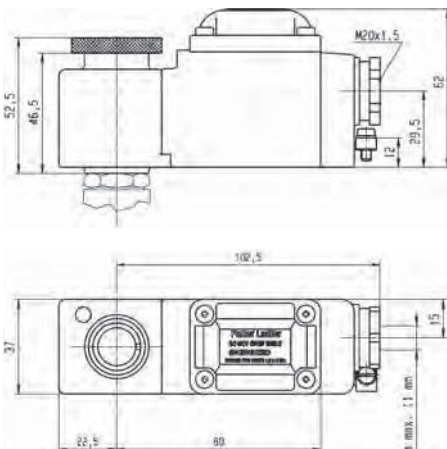
The plastic housing is delivered with 1/2" NPT or M20 x 1.5 threaded hole for wide range of cable glands. Small size for ease of mounting in confined space.



**ZONE 1/21**

Reference		496700 or 496700.02 (NPT)			496800 or 496800.02 (NPT)				
Certificate		LCIE 10 ATEX 3059 X - IECEx LCI 10.0023X							
Coil Group		10.2			10.1				
Type of protection	Gas	II 2 G - Ex db mb IIC T4 / T5 / T6			II 2 G - Ex db mb IIC T4				
	Dust	II 2 D - Ex tb IIIC - T130 / 95 / 80°C			II 2 D - Ex tb IIIC - T130°C				
Degree of protection		IP67 according to IEC/EN 60529 Standards							
Ambiant temperature		-40°C to +35°C / +50°C / +65°C			-40°C to +65°C				
Class of insulation		H (180°)							
Electrical connection		Electric connection is done in the connection box passes through a 1/2 NPT or M20x1.5 thread in which a certified Ex dB IIC cable gland must be installed							
Elect. Power	DC	Pn (hot)	-	6 W	-	8 W	-		
		P (cold) 20°C	-	7.5 W	-	10.5 W	-		
	AC	Pn (holding)	6 W	-	8 W	-	-		
		Attraction cold	7.5 W	-	10.5 W	-	-		
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code
-10% to +10% of the Un		230/50-60	P9	24	C2	230/50-60	P9	24	C2
		110/50-60	P2	48	C4	110/50-60	P2	48	C4
		24/50-60	P0	110	C5	24/50-60	P0	110	C5
		48/50-60	S4			48/50-60	S4		

**To Order a Coil choose** Coil Ref + Voltage Code, example: 496700 for 24VDC = 496700C2



COIL GROUP

**2.0/2.1**

**FLAME PROOF ENCAPSULATED  
ELECTRICAL PART**  
"db mb"



ZONE 1/21

**493640 OR HZ09 - ELECTRICAL PARTS**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex db mb II 2 G/D T4 to T5 is required.

**Benefits:** Metal armature encapsulated in synthetic material provides high shock and corrosion protection.

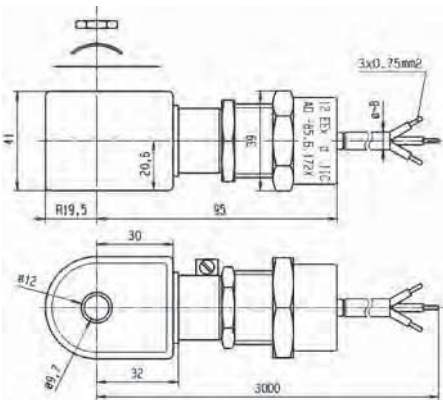
Small size for ease of mounting in confined space.



<b>Reference</b>		<b>493640 493640.60*</b>			
<b>Certificate</b>		<b>LCIE 02 ATEX 6009 X</b>			
<b>Coil Group</b>		<b>2.0 / 2.1</b>			
<b>Type of protection</b>	<b>Gas</b>	II 2 G - Ex db mb T4/T5			
	<b>Dust</b>	II 2 D - Ex tb IIIC - T130°C / T95°C			
<b>Degree of protection</b>		IP65 according to IEC/EN 60529 Standards			
<b>Ambiant temperature</b>		- 40°C to +100°C / +75°C The application is limited also by the temperature range of the valve.			
<b>Class of insulation</b>		F (155 °)			
<b>Electrical connection</b>		Special "Ex db" cable gland, galvanized steel, with EPDM sealing. (EPR) cable, outside diameter 7.3 ± 0.5 mm and 3000 mm long.			
<b>Elect. Power</b>	<b>DC</b>	<b>Pn (hot)</b>	8 W		
		<b>P (cold) 20°C</b>	9 W		
	<b>AC</b>	<b>Pn (holding)</b>	8 W		
		<b>Attraction cold</b>	32 VA (9 W)		
<b>Weight</b>		500 g			
<b>Voltages "Un"</b>		<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
- 15% to +10% of the Un		110/50	A5	24	C2
		110-120/50-60	P3	48	C4
		220-240/50-60	Q3	120	C6

To Order a Coil choose Coil Ref + Voltage Code, example: 493640 for 24VDC = **493640C2**

\* 493640.60 - 6 m cable length



**Fuses**

This electrical part is equipped with a standard thermal cut-off fuse on all models and voltages

This electrical part must be connected in series with a safety fuse according to IEC 60127-3.

DC: 24V, 400 mA

AC: 110/50-120/60, 200 mA  
220/50-240/60, 100 mA  
230/50, 95 mA



COIL GROUP

**2.0/2.1**

**INCREASED SAFETY  
ELECTRICAL PARTS  
"eb"**



**483371 & 494040 - ELECTRICAL PARTS 50 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex eb IIC T3 orT4 is required.

**Benefits:** Rotatable housing 360°, epoxy varnished steel with internal and external screw terminals for earth connection.

Small size for ease of mounting in confined space.Simplifies conversion of existing equipment to hazardous area requirements.



**ZONE 1/21**

Reference		483371				494040				
Certificate		LCIE 02 ATEX 6011 X				LCIE 02 ATEX 6013 X				
Coil Group		2.0 / 2.1								
Type of protection	Gas	II 2 G - Ex eb IIC T4				II 2 G - Ex eb IIC T3 / T4				
	Dust	II 2 D - Ex tb IIIC - T130°C				II 2 D - Ex tb IIIC - T195°C / T130 °C				
Degree of protection		IP67 according to IEC/EN 60529 Standards								
Ambiant temperature		-40°C to +65°C The application is limited also by the temperature range of the valve.				-40°C to +90°C / to +65°C				
Class of insulation		F 155°C				F (180°)				
Electrical connection		By special cable gland or M20 x 1.5 "Ex eb" on screw terminals for wires up to 1.5 mm². Cables with outside diameter 6.5 mm to 13.5 mm can be simply sealed using the rubber gland with resilient sealing rings supplied.								
Elect. Power	DC	Pn (hot)	8 W				8 W			
		P (cold) 20°C	9 W				9 W			
	AC	Pn (holding)	8 W				8 W			
		Attraction cold	32 VA (9 W)				32 VA (9 W)			
Weight		320 g								
Voltages "Un"		VAC/Hz	Code	VDC	Code	VAC/Hz	Code	VDC	Code	
-10% to +10% of the Un		24/50	A2	24	C2	220-230/50	3D	24	C2	
		48/50	A4	48	C4					
		110-115/50	0A	110	C5					
		220-230/50	3D							

To Order a Coil choose Coil Ref + Voltage Code, example: 483371 for 24VDC = 483371C2

**Fuses:**

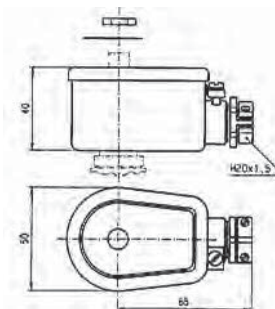
Both electrical parts have to be connected in series with a safety fuse according to IEC 60127-3.

**483371:**

DC: 24 V, 400 mA - 48V, 250 mA - 110 V, 100 mA  
AC 50HZ: 24 V, 630 mA - 48V, 315 mA - 110 V, 160 mA - 220/230 V, 80 mA

**494040:**

DC: 12 V, 400 mA - 24V, 200 mA - 48 V, 100 mA - 110V, 50 mA  
AC 50HZ: 24 V, 250 mA - 48V, 125 mA - 110/115 V, 63 mA - 220/230 V, 32 mA



**INCREASED SAFETY  
AND ENCAPSULATED  
ELECTRICAL PARTS "eb mb"**



**ZONE 1/2/1**

**492310 - ELECTRICAL PARTS 50 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex eb mb II T4 to T5 is required.

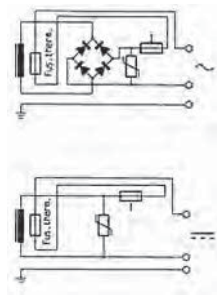
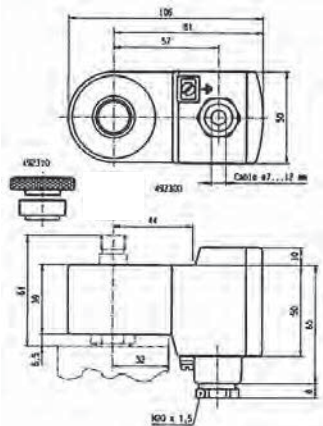
**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing. Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

Small size for ease of mounting in confined space.



<b>Reference</b>	<b>492310</b>			
<b>Certificate</b>	<b>LCIE 02 ATEX 6023 X - IECEx LCI 06.0011 X</b>			
<b>Coil group</b>	<b>10.1</b>			
<b>Type of protection</b>	<b>Gas</b>	II 2 G - Ex eb mb II T4 / T5		
	<b>Dust</b>	II 2 D - Ex tb IIIC - T130°C / T95°C		
<b>Degree of protection</b>	<b>IP66</b> according to IEC/EN 60529 Standards			
<b>Ambiant temperature</b>	-40°C to +75°C / to +40°C The operating temperature of the valve/coil can be limited by that of the valve			
<b>Class of insulation</b>	F 155°C			
<b>Electrical connection</b>	Connection box with terminals and cable entry via gland M20 x 1.5 - Possibility for additional earth via external screw.			
<b>Elect. Power</b>	<b>DC</b>	<b>Pn (hot)</b>	6 W	
		<b>P (cold) 20°C</b>	7.5 W	
	<b>AC</b>	<b>Pn (holding)</b>	6 W	
		<b>Attraction cold</b>	7.5 W	
<b>Weight</b>	500 g			
<b>Voltagess "Un"</b>	<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un	24/50-60	P0	24	C2
	48/50-60	S4	48	C4
	230/50-60	P9	110	C5

To Order a Coil choose Coil Ref + Voltage Code, example: 492310 for 24VDC = **492310C2**



**492210 - ELECTRICAL PARTS "BOOSTER" 50 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection - Ex eb mb IIC T5/T6 is required.

**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing. Solenoid coil, fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection. Small size for ease of mounting in confined space. Simplifies conversion of existing equipment to hazardous area requirements.

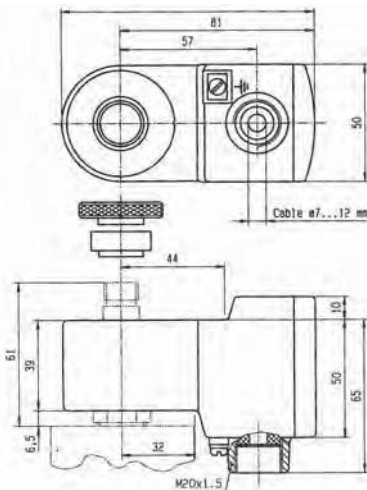
Available only in 24VDC (suffix code : C2)



**ZONE 1/21**

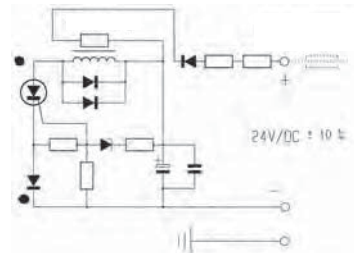
<b>Reference</b>	<b>492210</b>	
<b>Certificate</b>	<b>LCIE 02 ATEX 6023 X - IECEx LCI 06.0011 X</b>	
<b>Coil group</b>	<b>9.0</b>	
<b>Type of protection</b>	<b>Gas</b>	II 2 G - Ex eb mb IIC T5 / T6
	<b>Dust</b>	II 2 D - Ex tb IIIC - T95°C / T80°C
<b>Degree of protection</b>	<b>IP66</b> according to IEC/EN 60529 Standards	
<b>Ambient temperature</b>	-40°C to +75°C / +40°C The operating temperature of the valve/coil can be limited by that of the valve	
<b>Insulation Class</b>	F 155°C	
<b>Electrical connection</b>	Connection box with terminals and cable entry via gland M20 x 1.5 Possibility for additional earth via external screw	
<b>Power consumption DC</b>	1 to 1.8 W according to length of cable	
<b>Attraction current</b>	I min = 60 mA (I nominal = 75 mA)	
<b>Voltage DC</b>	U nominal = 24 VDC (C2), Umin = 21.6 VDC	
<b>Resistance</b>	23 Ω + (R = 270 Ω)	
<b>Inductance</b>	0 mH	
<b>Capacitance</b>	0 μF	
<b>Response time</b>	2 - 4 s	
<b>Weight</b>	500 g	

To Order a Coil choose Coil Ref + Voltage Code, example: 492210 for 24VDC = **492210C2**



**Indications:**

Booster for Offshore valves



These electrical parts need an external fuse of I = 100 mA

**ZONE 1/2/1**

**492190 - ELECTRICAL PARTS 50 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex eb mb IIC T3 to T4 is required.

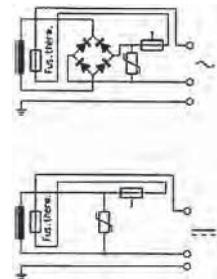
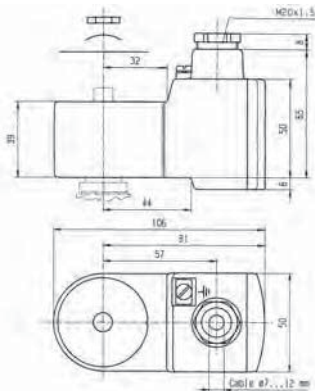
**Benefits:** Rotatable 360°, fiberglass -reinforced plastic housing. Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

Small size for ease of mounting in confined space.



<b>Reference</b>	<b>492190</b>			
<b>Certificate</b>	<b>LCIE 02 ATEX 6023 X - IECEx LCI 06.0011 X</b>			
<b>Coil Group</b>	<b>2.0 / 2.1</b>			
<b>Type of protection</b>	<b>Gas</b>	II 2 G - Ex eb mb IIC T3 / T4		
	<b>Dust</b>	II 2 D - Ex tb IIIC - 195°C / 130°C		
<b>Degree of protection</b>	<b>IP66</b> according to IEC/EN 60529 Standards			
<b>Ambient temperature</b>	-40°C to +75°C / +40°C The operating temperature of the valve/coil can be limited by that of the valve			
<b>Insulation Class</b>	F 155°C			
<b>Electrical connection</b>	Connection box with terminals and cable entry via gland M20 x 1.5 Possibility for additional earth via external screw			
<b>Electrical consumption</b>	<b>DC</b>	<b>Pn (hot)</b>	9 W	
		<b>P (cold) 20°C</b>	11 W	
	<b>AC</b>	<b>Pn (holding)</b>	11 W	
		<b>Attraction cold</b>	13 W	
<b>Weight</b>	320 g			
<b>Voltages "Un"</b>	<b>VAC/Hz</b>	<b>Code</b>	<b>VDC</b>	<b>Code</b>
-10% to +10% of the Un	24/50-60	P0	24	C2
	110/50-60	P2	48	C4
	230/50-60	P9	110	C5

**To Order a Coil choose** Coil Ref + Voltage Code, example: 492190 for 24VDC = **492190C2**



COIL GROUP

**7.0**

**INTRINSICALLY SAFE  
ELECTRICAL PARTS  
"ia"**



**483580 - 483960 ELECTRICAL PARTS 32 mm "IS"**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex ia or ib IIC T6 is required.

**Benefits:** Fully encapsulated assembly comprising a coil, metal armature, three diodes circuit and DIN plug connection.

The encapsulation provides an effective compact housing offering full protection against dust, oil, water, etc.

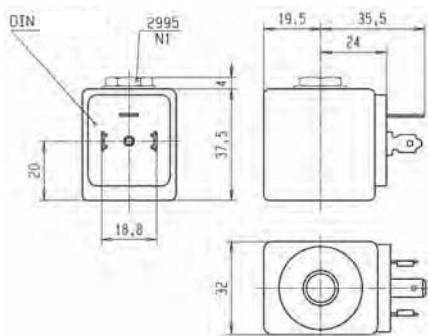
Small size for ease of mounting in confined space. Available only in 28VDC (suffix code : N7)



**ZONE 0/20**

Reference (without plug) (with plug)	483580.01 483960.01	
Certificate	LCIE 02 ATEX 6065 X - IECEx LCI 07.0025 X	
Coil Group	7.0	
Type of protection	Gas	II 1 G - Ex ia IIC - T6
	Dust	II 1 D - Ex ta IIC - T80°C
Degree of protection	IP65 with plug according to IEC/EN 60529 Standards	
Ambient temperature	- 40°C à + 55°C The operating temperature of the valve/coil can be limited by that of the valve.	
Class of insulation	F 155°C	
Electrical connection	The coil is connected with a 2P + E plug according to EN 175301-803 type A Contact 1 is marked as the positive pole ⊕.	
Maximum supply voltage	28 VDC (N7) - 110 mA The minimum operating voltage at maximum 60°C is 14 VDC.	
Power	DC	Minimum
		Maximum
		500 mW 3 W
Depending on applied voltage, IS barrier type and resistance of connected cable		
Coil resistance at 20°C	340 Ω	
Impedance	340 Ω	
Apparent inductance	0 mH	
Apparent capacitance	0 µF	
Weight	160 g (with plug)	

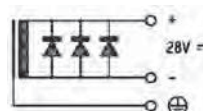
To Order a Coil choose Coil Ref + Voltage Code, example: 483580 for 28VDC = **483580N7**



**Important**

The intrinsically safe supply circuit should have enough capacity in all environmental conditions to assure a **minimum operating current of 35 mA** through the coil.

The minimal holding current is 20 mA.



For the barrier compatibility see the corresponding table in in appendix section.

These coil must be used with suitable housing : **Ref. 2995**

**INTRINSICALLY SAFE  
ELECTRICAL PARTS  
"ia"**



**ZONE 0/20**

**495910 - MINIWATT - 0.3 W  
ELECTRICAL PARTS "IS" "BOOSTER" 37 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex ia IIC T4 to T6 is required.

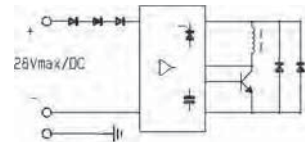
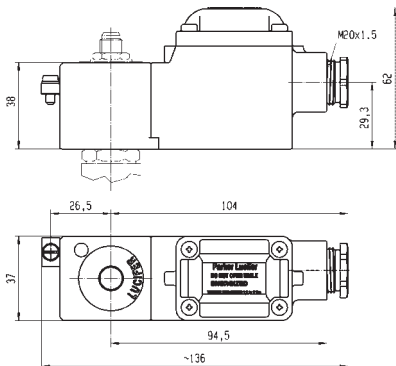
**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing (class H). Solenoid coil, rectifier (silicium diodes), fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection.

The plastic housing is delivered with M20 x 1.5 cable gland. Small size for ease of mounting in confined space. Available only in 28VDC (code : N7)



Reference	495910	495910.02 (Blue Cable Gland)	
Certificate	LCIE 03 ATEX 6464 X - IECEx LCI 07.0006 X		
Coil Group	8.0		
Type of protection	Gas	II 1 G - Ex ia IIC - T4 / T5 / T6	
	Dust	II 1 D - Ex ta IIC T80 / 95 / 130°C	
Degree of protection	IP67 according to IEC/EN 60529 Standards		
Ambiant temperature	- 40°C to +80°C / 75°C / 65°C The application is limited also by the temperature range of the valve..		
Class of insulation	H 180°C		
Electrical connection	Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 7 mm, Ømax. 11 mm, section max. 2.5 mm²) in the connection box passes by the built in M20 x 1.5 cable gland		
Maximum supply voltage	28 VDC (N7) - 110 mA	28 VDC (N7) - 280 mA	
Power	DC		
	Minimum	0.3 W (with 13 VDC)	0.3 W (with 13 VDC)
	Maximum	1.2 W (with 24 VDC)	2.58 W (with 24 VDC)
	Depending on applied voltage, IS barrier type and resistance of connected cable		
Line check	4 mA or 5 VDC max		
Coil resistance at 20°C	Charge ~ 550 Ω - Holding ~ 500 Ω		
Impedance	0 mH		
Apparent inductance	0 µF		
Apparent capacitance			
Response time	2 - 3 s		
Weight	500 g		

**To Order a Coil choose Coil Ref + Voltage Code, example: 495910 for 28VDC = 495910N7**







ZONE 0/20

**492965 ELECTRICAL PART  
"BOOSTER" "IS" 50 mm**

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group. See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex ia or ib IIC T6 is required.

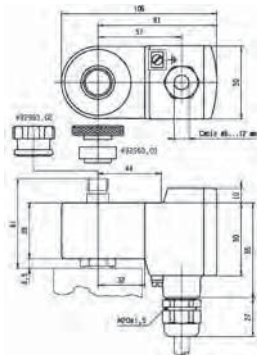
**Benefits:** Rotatable 360° fibreglass-reinforced plastic housing. Solenoid coil, fuses and varistor protection are completely encapsulated into the coil housing by epoxy resin for shock and corrosion protection. Small size for ease of mounting in confined space. Simplifies conversion of existing equipment to hazardous area requirements.

Small size for ease of mounting in confined space. Available only in 28VDC.



Reference	492965.01 - (Stainless steel fixation) 492965.02 - (Plastic fixation)	
Certificate	LCIE 02 ATEX 6066 X - IECEx LCI 07.0007 X	
Coil Group	9.0	
Type of protection	Gas	II 1 G - Ex ia IIC - T6
	Dust	II 1 D - Ex ta IIIC - T80°C
Degree of protection	IP66 according to IEC/EN 60529 Standards	
Ambiant temperature	- 40°C to +65°C The application is limited also by the temperature range of the valve.	
Electrical connection	Cable connection through a plastic or stainless steel cable gland M20 x 1.5 allowing use of cable diameter from 10 to 12 mm. Additional earth connection possible with external screw terminal.	
Class of insulation	H180°C	
Maximum supply voltage	28 VDC (N7) - 110 mA	
Power	DC	Minimum
		Maximum
		0.3 W (with 13 VDC) 2.3 W (with 24 VDC)
Line check	Depending on applied voltage, IS barrier type and resistance of connected cable 4 mA or 5 VDC max	
Coil resistance at 20°C	85 Ω	
Impedance	275 Ω (with 13 VDC) - 260 Ω (with 24 VDC)	
Apparent inductance	0 mH	
Apparent capacitance	0 µF	
Response time	2 - 4 s	
Weight	500 g	

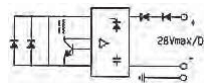
To Order a Coil choose Coil Ref + Voltage Code, example: 492965.01 for 28VDC = 492965.01N7



**Important**

The intrinsically safe supply circuit should have enough capacity in all environmental conditions to assure a **minimum operating current of 29 mA** through the coil.

The minimal holding current is 20 mA.



For the barrier compatibility see the corresponding table in appendix section.



**INTRINSICALLY SAFE  
ELECTRICAL PARTS  
"ia"**



**482870.01 & 492335 "NEMA"  
ELECTRICAL PARTS "IS" 50 mm**

These coils can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.  
See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where an explosion-proof protection Ex ia IIC or IIB T6 is required.

**Benefits:** Rotatable 360° housing, polyamid with fibreglass housing and cover. Coil, electronic circuits and other elements required for intrinsic safety are completely encapsulated in the housing with epoxy material for shock and corrosion protection.

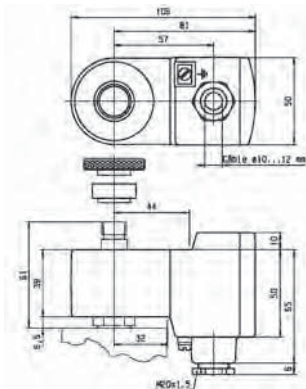
Small size for ease of mounting in confined space.



**ZONE 0/20**

Reference	482870.01		492335	
Certificate	LCIE 02 ATEX 6024 X		LCIE - FM - CSA	
Coil Group	<b>12.0</b>			
Type of protection	Gas	II 1 G - Ex ia IIC - T6		Cl. I, Div.I, Gr. A, B, C, D
	Dust	II 1 D - Ex ta IIIC - T80°C		Cl. II, Div.I, Gr. E, F, G
Degree of protection	IP66 according to IEC/EN 60529 Standards		NEMA 4 - 4X	
Ambiant temperature	- 40°C to +65°C The application is limited also by the temperature range of the valve.		+60°C	
Class of insulation	H180°C			
Electrical connection	Cable connection through a stainless steel cable gland M20 x 1.5 allowing use of cable diameter from 10 to 12 mm. Additional earth connection possible with external screw terminal.			
Maximum supply voltage	28 VDC (N7) - 110 mA		30 VDC (L8) - 100 mA	
Power	DC	Minimum	300 mW	
		Maximum	3 W	
Depending on applied voltage, IS barrier type and resistance of connected cable				
Coil resistance at 20°C			295 Ω	
Impedance			345 Ω	
Apparent inductance			0 mH	
Apparent capacitance			0 μF	
Weight			500 g	

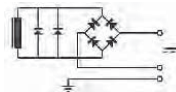
To Order a Coil choose Coil Ref + Voltage Code, example: 492335 for 30VDC = **492335L8**



**Important**

The intrinsic safety supply circuit must have sufficient capacitance in all ambient conditions to guarantee a minimum operating current in excess of **29 mA** across the coil.

The minimum current for holding in the energised position is 20 mA



For the barrier compatibility see the corresponding table in appendix section.



ZONE 0/20

## 488650.01 & 490885 "NEMA" ELECTRICAL PARTS "IS" 50 mm

This coil can be mounted with every Parker ATEX solenoid valves corresponding to the specified Coil Group.

See column "Coil Group" within valve pages.

**Application:** Control of solenoid valves in dangerous areas where explosion-proof protection Ex ia or ib IIC T6 is required.

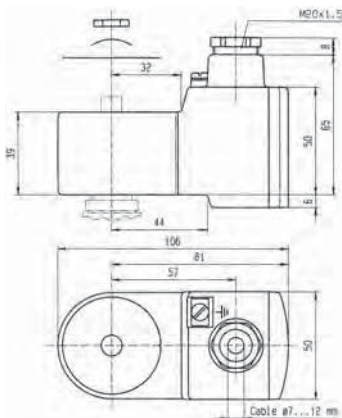
**Benefits:** Rotatable 360° housing, polyamid with fibreglass housing and cover. Coil, electronic circuits and other elements required for intrinsic safety are completely encapsulated in the housing with epoxy material for shock and corrosion protection.

Small size for ease of mounting in confined space.



Reference	488650.01		490885	
Certificate	LCIE 02 ATEX 6024 X		LCIE / FM / CSA	
Coil Group			7.0	
Type of protection	Gas	II 1 G - Ex ia IIC - T6	Cl. I, Div.I, Gr. A, B, C, D	
	Dust	II 1 D - Ex ta IIIC - T80°C	Cl. II, Div.I, Gr. E, F, G	
Degree of protection	IP66 according to IEC/EN 60529 Standards		NEMA 4 - 4X	
Ambiant temperature	- 40°C to +65°C		60°C	
	The operating temperature of the valve/coil can be limited by that of the valve.			
Electrical connection	Cable entry through a cable gland M20 x1.5. Screw terminals for leads 3 x 1.5 mm <sup>2</sup> max. Additional earth connection possible with external screw terminal			
Class of insulation	H180°C			
Maximum supply voltage	28 VDC (N7) - 110 mA		30 VDC(L8) - 100 mA	
The minimum operating voltage at maximum 60°C is 11.5 VDC.				
Power	DC	Minimum	300 mW	
		Maximum	3 W	
Dependent on the applied voltage, type of barrier IS and the resistance of the connected cable				
Coil resistance at 20°C	295 Ω			
Impedance	345 Ω			
Apparent inductance	0 mH			
Apparent capacitance	0 μF			
Weight	500 g			

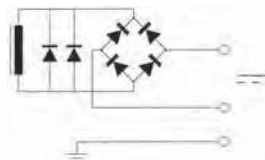
To Order a Coil choose Coil Ref + Voltage Code, example: 490885 for 30VDC = 490885L8



### Important

The intrinsically safe supply circuit should have enough capacity in all environmental conditions to assure a **minimum operating current of 29 mA** through the coil.

The minimal holding current is 20 mA.



For the barrier compatibility see the corresponding table in appendix section.

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## COIL STANDARD HOUSING WITH SCREW TERMINALS

### Standard housing:

<b>Reference:</b>	<b>4270</b>
<b>Material:</b>	Epoxy varnished steel with cathaphoresis traitement
<b>Degree of protection:</b>	IP according to IEC/EN 60529 IP 10 with armoured conduit IP 44 with cable gland
<b>Electrical connection:</b>	Can be made with armoured conduit or cable gland M12x1.5. Parts No. 495740 (cable gland M12x1.5) and 484093 to be ordered separately. Grounding connection by screw M3 on the inside of housing base plate.
<b>Weight:</b>	120 g



### Benefits:

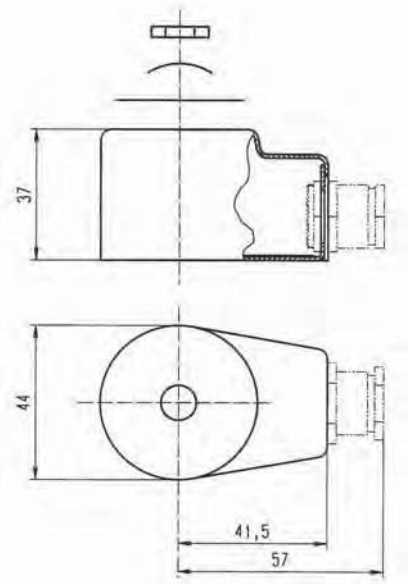
This metal housing offers the ideal protection against shocks and corrosion- rotatable 360° - easy mounting in confined spaces - single-nut mounting - light weight - simplifies conversion of existing equipment to other requirements.

### Application:

The majority of the Lucifer® valves can be fitted with this standard housing, and can be mounted with several compatible Lucifer® coils group.

### Compatible coils:

- **481000 - Standard Coil**  
8 W Class F (155°C)
- **483520 - Double-Frequency Coil**  
9 W Class F (155°C)
- **481044 - Standard High-Power Coil**  
14 W Class F (155°C)
- **485100 - Standard High-Temperature Coil**  
8 W Class H (180°C)
- **486265 - High-Temperature and High-Power Coil**  
14 W Class H (180°C)



## HOUSING

**4269****HOUSING FOR BISTABLE  
(IMPULSE) COILS****Housing for bistable coil:**

<b>Reference:</b>	<b>4269</b>
<b>Material:</b>	Epoxy varnished steel
<b>Degree of protection:</b>	IP according to IEC/EN 60529 IP 10 with armoured conduit IP 44 with cable gland
<b>Electrical connection:</b>	Can be made with armoured conduit or cable gland M12x1.5. Parts No. 484092 and 484093 to be ordered separately. Grounding connection by screw M3 on the inside of housing base plate.
<b>Weight:</b>	120 g

**Benefits:**

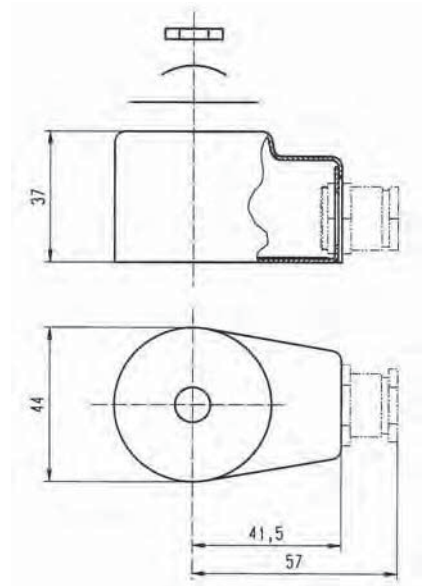
This metal housing offers the ideal protection against shocks and corrosion- rotatable 360° - easy mounting in confined spaces - single-nut mounting - light weight - simplifies conversion of existing equipment to other requirements.

**Application:**

This housing is specially designed for group 706 coils and can be mounted only with valves controlled by electrical impulses.

**Compatible coils:**

- **484990 - Impulse coil for AC**  
11 W Class F (155°C)
- **485400 - Impulse coil for DC**  
13 W Class F (155°C)



## WATERPROOF AND DUSTPROOF HOUSING

## Waterproof housing:

<b>Reference:</b>	<b>4538</b>
<b>Material:</b>	Epoxy varnished steel
<b>Degree of protection:</b>	IP according to IEC/EN 60529 IP 67 with cable gland
<b>Electrical connection:</b>	Cable connection by cable gland M12x1.5 according to DIN 46320. Cable with outer diameter 6.5 - 13.5 mm can be simply sealed using a rubber gland with resilient sealing rings.  The enclosure is internally and externally fitted with grounding and earthing screw terminals.
<b>Weight:</b>	180 g



## Benefits:

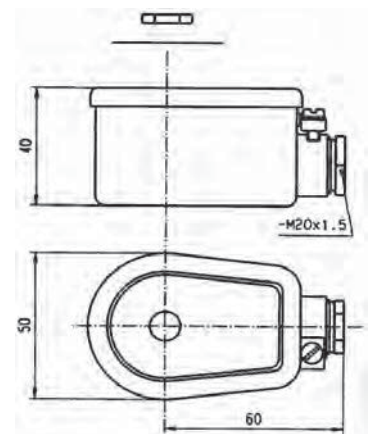
This enclosure is dust- and waterproof. It corresponds to the degree of "International Protection" IP 67 according to IEC / EN 60529. Corrosion resistant, the metal housing offers good protection for the coil against shocks and other outside influences - rotatable 360° - easy mounting in confined spaces - easy access to the screw terminals - single-nut mounting - light weight - simple conversion of existing electrical equipment to other requirements without interruption of fluid passage in the valve.

## Application:

This housing can be equipped with several coils of our programme, like the standard, double-frequency and magnetic latch coils.

## Compatible coils:

- **481000 - Standard Coil**  
8 W    Class F (155°C)
- **483520 - Double-Frequency Coil**  
9 W    Class F (155°C)
- **484990 - Impulse Coil for AC**  
11 W    Class F (155°C)
- **485400 - Impulse Coil for DC**  
13 W    Class H (180°C)



## HOUSING

**8520****WATERPROOF HOUSING  
FOR HIGH-TEMPERATURE COILS****Waterproof housing:**

<b>Reference:</b>	<b>8520</b>
<b>Material:</b>	Epoxy varnished steel
<b>Degree of protection:</b>	IP according to IEC/EN 60529 IP 67 with cable gland
<b>Electrical connection:</b>	Cable connection by cable gland M12x1.5 according to European standards. Cable with outer diameter 6.5 - 13.5 mm can be simply sealed using a rubber gland with resilient sealing rings. The enclosure is internally and externally fitted with grounding and earthing screw terminals.
<b>Weight:</b>	180 g

**Benefits:**

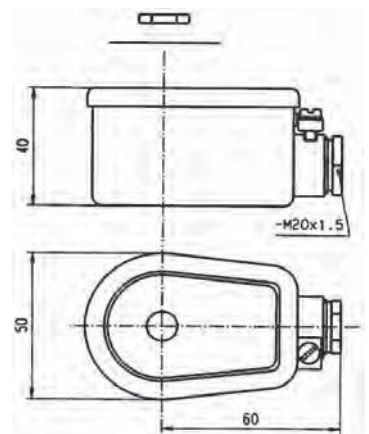
This enclosure is dust- and waterproof. It corresponds to the degree of "International Protection" IP 67 according to IEC / EN 60529. Corrosion resistant, the metal housing offers good protection for the coil against shocks and other outside influences - rotatable 360° - easy mounting in confined spaces - easy access to the screw terminals - single-nut mounting - light weight - simple conversion of existing electrical equipment to other requirements without interruption of fluid passage in the valve.

**Application:**

The majority of the Lucifer® valves can be fitted with this housing and can be mounted with several compatible Lucifer® coils for high temperature (14 W, 8 W Class F or H).

**Compatible coils:**

- **481044 - High Power Coil**  
14 W Class F (155°C)
- **486265 - High Power Coil**  
14 W Class H (180°C)
- **485100 - Coil for High Temperature**  
8 W Class H (180°C)



22 mm  
32 mm

## COIL ASSEMBLY KITS

### COIL ASSEMBLY KIT FOR 22 mm COIL

The coil assembly kit corresponds to the numbering system for Lucifer® valve housings (Valve - housing - coil/voltage).

It is composed of a nameplate with the details of the valve type, a washer and a nut to secure the 22 mm coil to the valve.

**Caution: these coil assembly kits for 22 mm coils are not adapted for high flow valves, ask your distributor for the adapted kit.**



Reference	Specification	Application
8993	Standard - aluminium nameplate - passivated washer and nut - pressure indication in [bar]	Standard valves
8993.03	Standard - aluminium nameplate - passivated washer and nut - pressure indication in [psi]	Standard valves
8122	Special - aluminium nameplate - stainless steel washer and nut - pressure indication in [psi]	316L St. Steel Valves
8567	Special - knurled flat aluminium nut	Valves- series 321K3...

### COIL ASSEMBLY KIT FOR 32 mm COIL

The coil assembly kit corresponds to the "housing" of Lucifer® valve numbering system (Valve - housing - coil/voltage).

It is composed of a nameplate giving details of the valve type, a round washer and a nut to ensure the fixing between 32 mm coil and the valve.



Reference	Specification	Application
2995	Standard - Aluminium nameplate - Passivated iron washer and nut - Pressure indication in [bar]	Standards valves
2995.03	Standard - Aluminium nameplate - Passivated iron washer and nut - Pressure indication in [psi]	UL / CSA valves
8132	Special - Aluminium nameplate - Stainless steel washer and nut - Pressure indication in [psi]	316L St. Steel valves
2161	Special - Aluminium nameplate - Passivated iron washer and nut - Pressure indication in [bar]	Transportation valves
2168	Special AD Blue - Aluminium nameplate - Passivated iron washer and nut - Pressure indication in [bar]	Transportation valves
2169	Special AD Blue - Aluminium nameplate - Passivated iron washer and nut - Pressure indication in [bar]	Transportation valves



## ACCESSORIES

### DIN PLUG CONNECTOR ACCORDING TO EN 175301-803 -B

No. 481043 for Parker Lucifer® coil  
No. 600040 for Parker coil

Electrical connection suitable for all 22 mm coils  
(e.g. 488980, 481180)



### DIN PLUG CONNECTOR ACCORDING TO EN 175301-803 - A

No. 486586 for standard Parker Lucifer® version  
No. 492645 for high temperature Parker Lucifer® version  
No. 600004 for Parker version

Electrical connection suitable for all 32 mm coils  
(e.g. 481865, 492425)



### METALIC ASSEMBLY KIT

Nut No. 482213 M14 x 1+ Ring No. 482214 +  
O-Ring No. 483917

Coil assembly kit for offshore electrical parts  
(e.g. 482870.01, 492210, 492965.01, 496565, 496700)



### CABLE GLAND

No. 492398 - Pg 13.5 -Ex eb II  
No. 493841 - M20x1.5 - Ex ia IIC

Electrical connection and mooring cable with 6 to 12 mm diameter,  
for electrical parts approved "eb mb" or "ia"  
(e.g. 492190, 492965....)



### CABLE GLAND

No. 493426 - 1/2"-14 NPT

Electrical connection and mooring cable with 6 to 12 mm diameter,  
for flameproof approved electrical parts  
(e.g. 493640)





## GUIDANCE CHART FOR IS-BARRIERS

Manufacturer	Reference	Ex	IS Standard Electrical Parts							IS Booster Electrical Parts			
			Ex ia IIC T6 488650.01/02 488660.01 488670.01 LCIE/AUS	Ex ia IIC T6 490885 (490895) LCIE/FM/CSA	Ex ia IIC T6 483580.01/03 483960.01/03 LCIE/AUS	Ex ia 490880 (493997) LCIE/FM/CSA	Ex ia IIB T6 482160.01 LCIE	Ex ia IIC T6 482870.01 LCIE	Ex ia 492335 LCIE/FM/CSA	Ex ia IIC T6 492965.01/02 LCIE	Ex ia IIC T6 496565 LCIE	Ex ia IIC T6 495910 LCIE	
A puissance 3	NAEV 22-140	ia	●	-	●	-	●	●	-	●	●	●	
	NAEV 26-100	ia	●	-	●	-	●	●	-	●	●	●	
ABB	V171132-54	ib	●	-	●	-	●	●	-	●	●	●	
	V171132-55	ib	●	-	-	-	●	●	-	●	●	●	
	V171132-61	ia	●	-	-	-	●	●	-	●	●	●	
	DO 890	ib	●	-	●	-	●	●	-	●	●	●	
	S900-D04-EX	ib	●	-	-	-	●	●	-	●	●	●	
BRADLEY	FEX-EX 24V	ia	●	●	●	●	●	●	-	●	●	●	
COOPER	LB 2101	ia	●	●	●	●	●	●	●	●	●	●	
	LB 2105	ia	●	●	●	●	●	●	●	●	●	●	
	LB 2112	ia	●	●	●	●	●	●	●	●	●	●	
ELCON	1881 / 1882	ia	●	●	●	●	●	●	●	●	●	●	
	471 / 472	ia	●	●	●	●	●	●	●	●	●	●	
	2871/2872	ia	●	●	●	●	●	●	●	●	●	●	
	2874/2875/2876	ia	●	●	●	●	●	●	●	●	●	●	
GEORGIN	AVB 122	ia	●	-	●	-	●	●	-	●	●	●	
	AVB 125	ia	●	-	-	-	●	●	-	●	●	●	
	AVB 128	ia	●	-	●	-	●	●	-	●	●	●	
Hima	F3328A	ib	●	-	●	-	●	●	-	●	●	●	
	F3335	ib	●	-	-	-	●	●	-	●	●	●	
	H4007	ib	●	-	●	-	●	●	-	●	●	●	
MTL	728P, 7128P, 7728P	ia	-	-	-	-	●	●	-	●	●	●	
	728, 7028, 7128, 7728	ia	●	●	●	●	●	●	●	●	●	●	
	3021, 4021, 4021S	ia	●	-	●	-	●	●	-	●	●	●	
	3022	ia	-	-	-	-	●	-	-	-	-	-	
	4023	ia	-	-	-	-	●	-	-	-	-	-	
	4024	ia	●	-	●	-	●	●	-	●	●	●	
	4025	ia	●	●	●	●	●	●	●	●	●	●	
	5021, 5023, 5024	ia	●	-	●	-	●	●	-	●	●	●	
	5025	ia	●	-	●	-	●	●	●	●	●	●	
	4521 / 4523 / 4524	ia	●	-	-	-	●	●	●	●	●	●	
	5521 / 5523 / 5524	ia	●	-	-	-	●	●	●	●	●	●	
	Pepperl & Fuchs	Z 728	ia	●	●	●	●	●	●	●	●	●	●
		Z 779	ia	●	●	●	●	●	●	●	●	●	●
		EGA-041-3	ia	-	●	●	●	●	●	●	●	●	●
KFD2-SD-EX1.36		ia	-	-	-	-	-	●	-	-	-	-	
KFD2-SL-EX1.36		ia	-	-	-	-	-	●	-	-	-	-	
KFD2-SD-EX1.48		ia	-	●	-	●	-	●	●	●	●	●	
KFD2-SL-EX1.48		ia	-	●	-	●	-	●	●	●	●	●	
KFD2-SL- EX1.48.90A		ia	-	-	-	-	-	-	-	●	●	●	
KFD2-SL- EX1.48.90A		ia	-	-	-	-	-	-	-	●	●	●	
KFD2-SL2-EX1.LK		ia	-	●	-	●	-	●	●	●	●	●	
KFD2-SL2-EX2		ia	-	●	-	●	-	●	●	●	●	●	
KSD2-B0-EX		ia	-	●	●	●	●	●	●	●	●	●	
RSD-B0-EX4		ib	-	-	-	●	-	●	●	●	●	●	
RSD-V0-EX8		ib	-	-	-	-	-	-	-	●	●	●	



## GUIDANCE CHART FOR IS-BARRIERS

Manufacturer	Reference	Ex	IS Standard Electrical Parts							IS Booster Electrical Parts				
			Ex ia IIC T6 488650.01/02 488660.01 LCIE/AUS	Ex ia IIC T6 490885 (490895) LCIE/FM/CSA	Ex ia IIC T6 483580.01/03 483960.01/03 LCIE/AUS	Ex ia 490880 (493997) LCIE/FM/CSA	Ex ia IIB T6 482160.01 LCIE	Ex ia IIC T6 482870.01 LCIE	Ex ia 492335 LCIE/FM/CSA	Ex ia IIC T6 492965.01/02 LCIE	Ex ia IIC T6 496565 LCIE	Ex ia IIC T6 495910 LCIE		
SIEMENS	5RD00-OAB0	ib	-	-	-	-	-	-	-	-	●	-	-	
	7RD00-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
	7RD01-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
	7RD10-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
	7RD11-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
	7RD20-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
	7RD21-OAB0	ia	-	-	-	-	-	-	-	-	●	●	●	
STAHL	9001/01-252-100-14	ia	●	●	27 V	27 V	●	●	●	●	●	●	●	
	9001/01-280-100-10	ia	●	●	24 V	24 V	●	●	●	●	●	●	●	
	9001/01-280-110-10	ia	●	-	24 V	-	●	●	-	-	●	●	●	
	9002/13-280-100-04	ia	24 V	24 V	27 V	27 V	24 V	24 V	24 V	17 V	17 V	17 V	17 V	
	9311/52-11-10	ia	-	●	●	25 V	25 V	●	●	15 V	15 V	15 V	15 V	
	9111/63-11-00	ia	-	●	●	25 V	25 V	●	●	15 V	15 V	15 V	15 V	
	9351/10-15-10	ia	-	●	●	-	-	●	●	●	●	●	●	
	9351/10-16-10	ia	-	●	●	●	-	●	●	●	●	●	●	
	9351/10-17-10	ia	-	-	-	-	-	●	-	-	-	-	-	
	9381/10-187-050-10	ib	-	●	●	●	●	●	●	●	●	●	●	
	9381/10-246-055-10	ib	-	●	●	●	●	●	●	●	●	●	●	
	9381/10-246-070-10	ib	-	●	●	●	●	●	●	●	●	●	●	
	9465/12-04-11	ib	-	●	●	-	-	●	●	●	●	●	●	
	9475/12-04-21	ia/ib	-	●	-	●	-	●	●	●	●	●	●	
	9475/12-04-31	ia/ib	-	-	-	-	-	-	-	●	●	●	●	
	9475/12-08-41	ia/ib	-	-	-	-	-	-	-	-	-	-	-	
	9475/12-08-51	ib	-	-	-	-	-	-	-	●	●	●	●	
	9475/12-08-61	ia/ib	-	-	-	-	-	-	-	-	●	●	●	
	Turck	MK72-S01-EX	ib	-	-	-	-	●	●	-	●	●	●	●
		MK72-S02-EEX	ib	-	-	-	-	●	●	-	●	●	●	●
MK72-S04-EEX		ib	●	-	●	-	●	●	-	●	●	●	●	
MK72-S05-EEX		ib	●	-	-	-	●	●	-	●	●	●	●	
MK72-S06-EEX		ib	●	-	●	-	●	●	-	●	●	●	●	
MK72-S07-EEX		ib	●	-	-	-	●	●	-	●	●	●	●	
MK72-S09-EEX		ia	-	-	-	-	-	-	-	-	-	-	-	
MK72-S12-EEX		ia	●	-	●	-	●	●	-	●	●	●	●	
MC72 - 41		ia	●	-	●	-	●	●	-	●	●	●	●	
MC72 - 43		ia	●	-	●	-	●	●	-	●	●	●	●	
MC72 - 44	ia	-	-	-	-	-	-	-	●	●	●	●		
BARTEC	07-7331-2301/1000	ia	●	-	-	-	●	●	-	●	-	-	-	
	07-7331-2301/1100	ia	●	-	●	-	●	●	-	●	-	-	-	

If barrier reference not listed, consult factory for compatibility ([tech\\_support\\_fcde@parker.com](mailto:tech_support_fcde@parker.com))

# TABLE OF VOLTAGE CODES FOR COILS AND ELECTRICAL PARTS

This table is showing the most commonly used voltage codes, for other voltages, please ask us.

VOLTAGE CODES			C1	C2	N7	L8	C4	C5	C7	P1	A5	0A	S5	P2	1P	6J	0P	P3	K8
Coil	Group	Sub-Group	12 DC	24 DC	28 DC	30 DC	48 DC	110 DC	220 DC	100/50-60	110/50	110-115/50	110-115/50 120/60	110/50-60	110-115/50-60	110-115/60	100/50-115/60	110/50-120/60	115/60
481180	1.1	-	●	●								●							
482605	1.1	-	●	●															
482606	1.1	-	●	●			●	●				●				●			
483590	1.1	-											●						
488143	1.1	-								●									
488980	1.1	-	●	●			●	●				●				●			
492912	1.1	-		●															
496131	1.2	-	●	●			●	●						●					●
496482	1.2	-	●	●			●	●						●					●
496637	1.2	-	●	●			●	●						●					●
481000	2.0	2.1	●	●			●	●	●			●				●			
481865	2.0	2.1	●	●			●	●			●								●
483371	2.0	2.1	●	●			●	●	●			●				●			
483510	2.0	2.1											●						
483520	2.0	2.1																	
485100	2.0	2.1		●	●				●			●							
488553	2.0	2.1								●									
491514	2.0	2.1	●	●		●												●	
492070	2.0	2.1	●	●			●	●						●					
492190	2.0	2.1	●	●			●	●	●					●					
492453	2.0	2.1	●	●			●	●			●								
492670	2.0	2.1	●	●			●	●			●								
493640	2.0	2.1		●			●				●							●	
494040	2.0	2.1		●					●			●							
495870	2.0	2.1		●			●	●			●								
495875	2.0	2.1		●															
495905	2.0	2.1		●			●	●											●
496081	2.0	2.1	●	●									●						
496110	2.0	2.1											●						
HZ10	2.0	2.1																●	

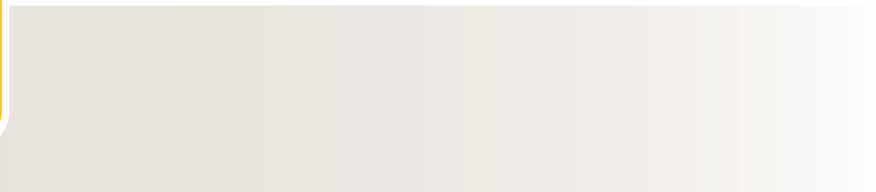


# TABLE OF VOLTAGE CODES FOR COILS AND ELECTRICAL PARTS

This table is showing the most commonly used voltage codes, for other voltages, please ask us.

VOLTAGE CODES			C1	C2	N7	L8	C4	C5	C7	P1	A5	0A	S5	P2	1P	6J	0P	P3	K8
Coil	Group	Sub-Group	12 DC	24 DC	28 DC	30 DC	48 DC	110 DC	220 DC	100/50-60	110/50	110-115/50	110-115/50 120/60	110/50-60	110-115/50-60	110-115/60	100/50-115/60	110/50-120/60	115/60
481044	2.0	2.2									●						●		
486265	2.0	2.2	●	●			●				●						●		
492425	2.0	2.2	●	●							●								
495880	2.0	2.2		●							●								
496155	2.0	2.2		●			●				●								
HZ11	2.0	2.2	●	●			●											●	
482730	3.0	-		●			●				●								●
484990	4.0	-													●				
485400	4.0	-	●	●			●	●											
495915	4.0	-		●			●								●				
482740	6.0	-		●			●	●											
495900	6.0	-	●	●			●	●											●
496125	6.0	-		●			●	●											
483580.01	7.0	-			●														
488650.01	7.0	-			●														
490885	7.0	-				●													
495910	8.0	-			●														
492210	9.0	-		●															
492965.01	9.0	-			●														
496565	9.0	-			●														
492310	10.1	-	●	●			●	●	●					●					
496560	10.1	-		●			●												
496800	10.1	-		●			●												
496895	10.1	-		●			●												
496555	10.2	-		●			●												
496700	10.2	-		●			●												
497105	10.3	-	●	●			●	●							●				
492335	12.0	-				●													







# TECHNICAL INFORMATION ABOUT SOLENOID VALVES

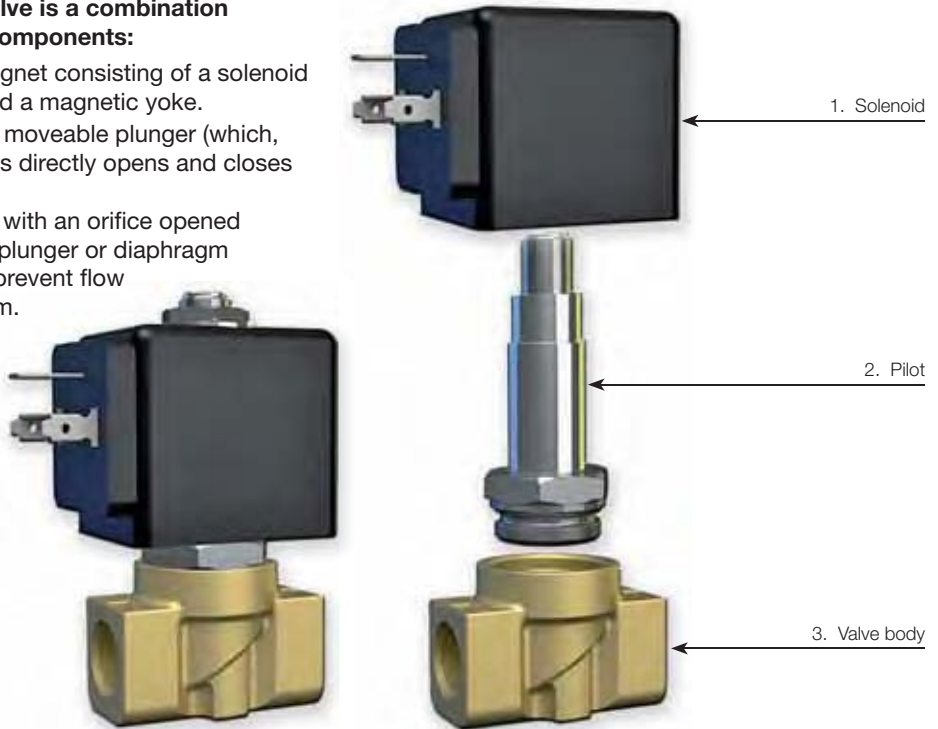
# TECHNICAL INFORMATION ABOUT SOLENOID VALVES

## General Information

Solenoid valves are electro-mechanical devices used for interrupting or diverting the flow of fluids by opening or closing one or more orifices.

**The solenoid valve is a combination of three basic components:**

1. An electromagnet consisting of a solenoid (windings) and a magnetic yoke.
2. A pilot with a moveable plunger (which, in some cases directly opens and closes the valve).
3. A valve body with an orifice opened or closed by plunger or diaphragm to enable or prevent flow of the medium.



## Operating principles

The term solenoid refers to operator and coil, also known as pilot or magnetic actuator.

The coil consists of copper wire wound on a support reel. When electric current is applied into the coil, magnetic flow lines are generated which are stronger in the coil center.

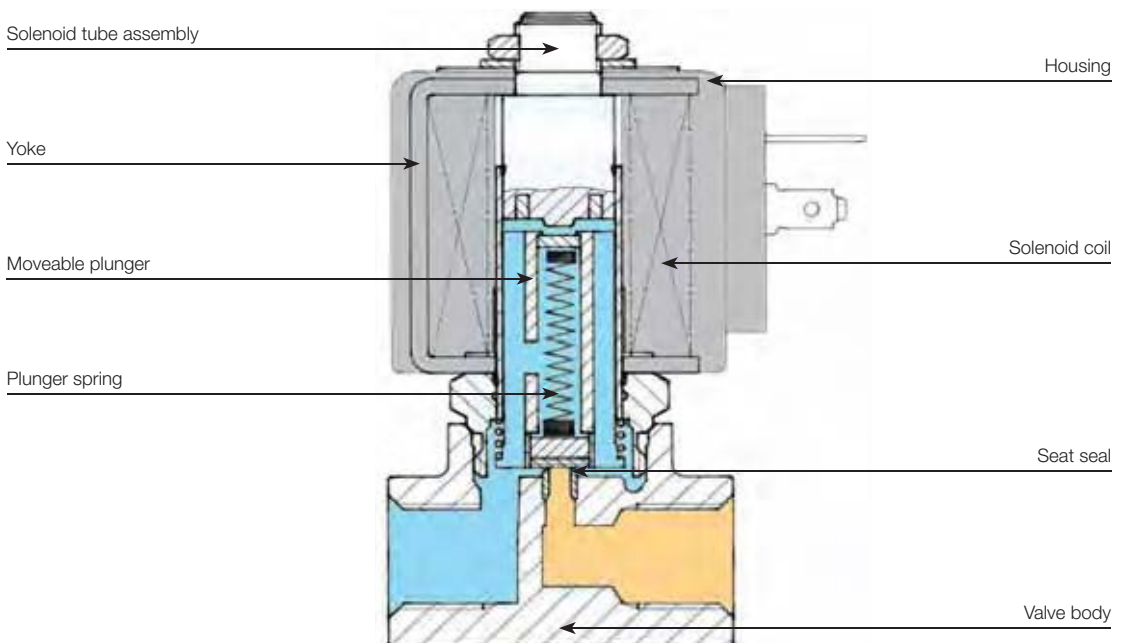
This magnetic flow raises the moveable plunger in the coil until it brings it into contact with the pole piece. The valve body has an orifice through which the fluid flows when the valve is open.

The moveable plunger has an integral seat which when the solenoid coil is energised, moves off the valve (direct operated) orifice or diaphragm (pilot operated) orifice opening the valve.

When the coil is de-energised, a return spring brings the plunger back to the original closing position, thus cutting off the flow of the fluid.

# BASIC COMPONENTS OF A SOLENOID VALVE

- Valve body:** Main part of the solenoid valve including ports, seat and orifices.
- Solenoid tube assembly:** Cylinder, in stainless steel, hermetically sealed and closed at one extremity. It is the guide channel of the moveable plunger which is moved magnetically. The solenoid coil is fitted on the external side of the enclosing tube.
- Moveable plunger:** Made by ferritic stainless steel, it is attracted by the solenoid magnetic field and slides inside the tube.
- Plunger spring (or return spring):** Used to hold the moveable plunger in position and to return it when de-energized.
- Seat seal:** Part of the moveable plunger, it is used to close a valves main orifice or pilot orifice.
- Electromagnet (or solenoid coil):** Electrical part consisting of a copper windings (solenoid) along, with a magnetic yoke (armature), when electric current flows through, it generates a magnetic field attracting the moveable plunger.
- Housing:** Part that contains and protects the coil.
- Yoke:** Metallic case surrounding the coil and concentrating electro-magnetic force on the moveable plunger.



# TECHNICAL VOCABULARY USED IN TABLES

Actuation	Body	Function	Port Size	Orifice (mm)	Flow Factor Kv(l/min)	MOPD (bar)	Max Fluid Temp. (°C)	Page Parker LUCIFER® Valves
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## NORMALLY CLOSED

Port size	Orifice Ø	Flow factors			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			Power		Coil Group	Dwg. No.
		Kv l/min	KV m³/h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.	AC W	DC W		
BSP	mm																

The basic technical features of each solenoid valve are indicated in the tables, the terminology used is shown and explained below. Please notice that in certain sections you will have the choice between two product ranges: Parker valves, within blue tables and the Parker Lucifer valves, within orange tables.

- Actuation:** The mechanical method used to control the flow.
- Body:** Main part of the solenoid valve with the ports, seats and orifice needed.
- Function:** The way the valve operates when de-energised.
- Port Size:** Fitting dimensions are defined as threaded in inches (G), in BSP or Sub-base, when a flat interface for ports is adopted.
- Orifice (mm):** Main orifice diameter in millimetres (nominal diameter).
- Flow Factors:** Define the quantity of water which flows through the solenoid valve with a pressure drop of 1 bar during one minute. Expressed in l/min and m³/h.
- Max Fluid Temperature:** Maximum fluid temperature the valve can withstand.
- Max Ambient Temperature:** Maximum ambient temperature the valve can withstand.
- Minimum Operating Pressure Differential:** The lowest differential pressure required for operation (bar).
- Maximum Operating Pressure Differential (MOPD):** The highest working differential pressure with 90% of the rated voltage (-10% Vn) applied to the solenoid coil (for AC) and 95% of the rated voltage (-5% Vn)(for DC).

<b>Fluid Temperature:</b>	Minimum and Maximum admissible temperature for the media used (°C).
<b>Seat seal:</b>	Material used for the seat discs.
<b>Valve ref.:</b>	Applicable for Parker Lucifer Valves shown in orange tables. The valve ref. refers to the valve. (please refer to the "How To Order" section for more details).
<b>Valve type:</b>	Refers to the Parker valve type
<b>Housing ref.:</b>	Only for Parker Lucifer valves shown in orange tables, you can choose the housing to protect the coil.
<b>Coil Ref.:</b>	Compatible coil reference.
<b>Coil type:</b>	Compatible coil advised.
<b>Power:</b>	Power consumption of a specific electrical part on selected pressure vessel, rated by AC and DC (W). Power consumption must be considered in cold conditions for the coil, at T <sub>Amb</sub> : +20°C. For 483510, 481865 and 496081 series, power consumption indicated in the tables must be considered in warm conditions.
<b>Coil group:</b>	Please refer to the specific section for the coil compatibility groups.
<b>Dwg. No.:</b>	Drawing number.

# TECHNICAL INFORMATION

Solenoid valves are highly engineered products that can be used in many diverse applications.

In addition to operational functionality, media compatibility and suitability for the operating environment when selecting the best product for a given application.

This section provides a brief overview of the components, actuation and function modes of solenoid valves available from Parker Hannifin - FCDE.

## Different Technologies:

Solenoid valves are electrically operated devices used to control flow. The most common types of solenoid valve are:



**Direct Operated  
Valves**



**Magnalift Valves**



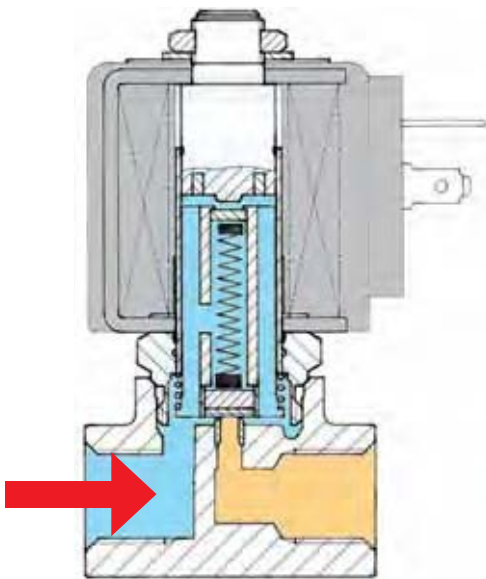
**Pilot Operated  
Valves**

# DIRECT OPERATED VALVE

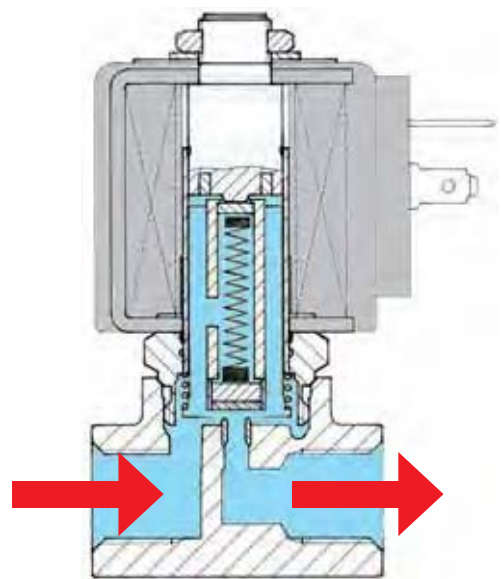
Magnetic force is used directly to open or close the plunger which controls the passage of the fluid. Performances are limited by the coil, the pressure, and the valve orifice size. For direct operated valves, the minimum working pressure is 0 bar and the maximum pressure relies on the combination (valve/coil) chosen.

## Direct Operated Valve

De-energised

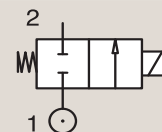


Energised



**Example:**

- 121 Series
- 146 Series
- N74 Series



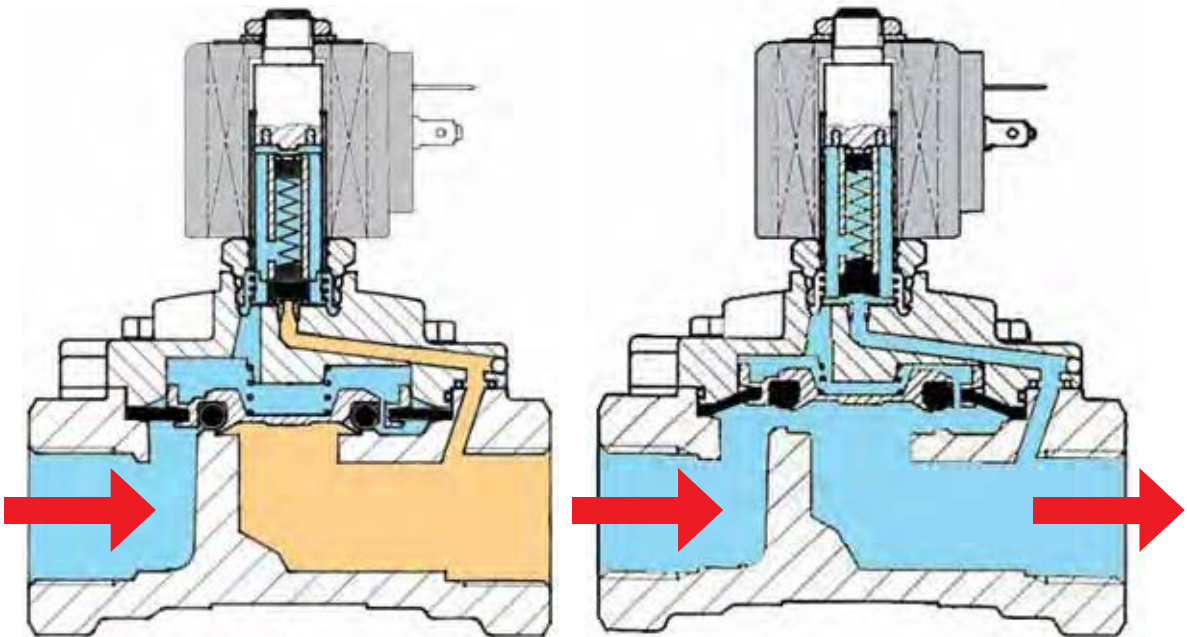
# PILOT OPERATED VALVE

To control a higher flow, it is necessary to use pilot operated valves. The supply pressure enters the direct operated "pilot stage" which directs the flow to a "pilot chamber" which, in turn, applies the pilot pressure over a large area (generally a diaphragm or piston). Therefore, a large force is generated to move the main sealing elements against higher pressure or over a large orifice. One condition of operation is to have a minimum pressure available to shift the valve (indicated in the catalogue). In most applications, this presents no particular problems (refer to magnalift valve section). The pressure rating of the valve starts between 0.1 to 0.5 bar (depending on the valve). (NB. Pilot Operated Valves are also called Servo Operated Valves).

## Pilot Operated Valve

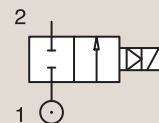
De-energised

Energised



**Example:**

- 321 Series
- 7321B Series
- 168.1 Series





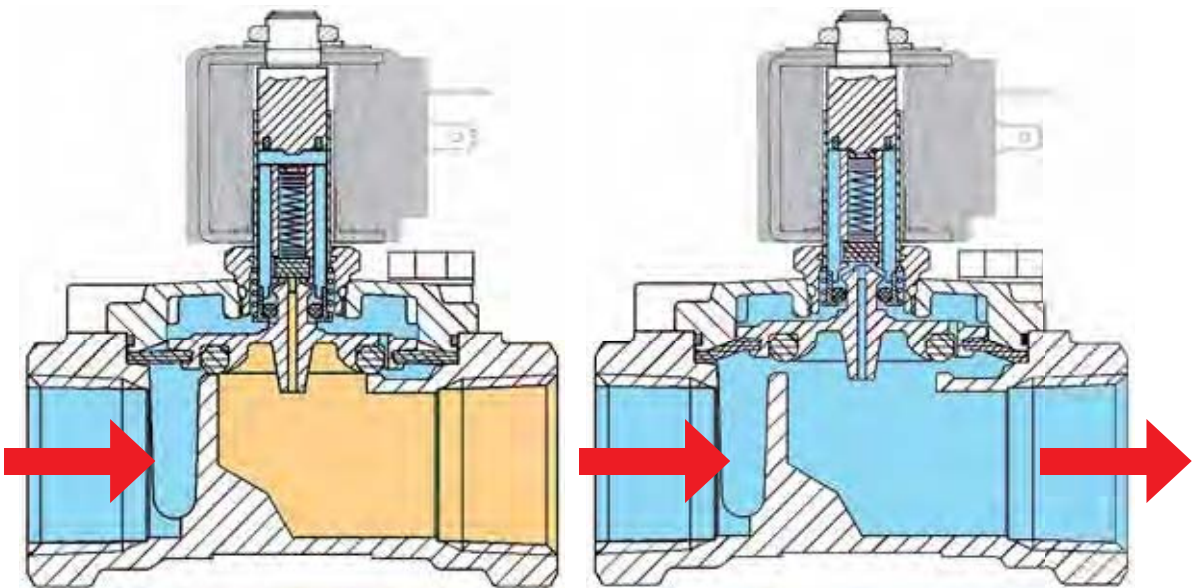
# MAGNALIFT VALVE

The magnalift valves combine the features of the direct operated and pilot operated valves. A mechanical link between the plunger and diaphragm retainer allows the valve to operate as a direct operated valve at low pressures and as a pilot operated valve at higher pressures. Magnalift valves are specially designed for applications where 0 pressure is needed to operate the valve, as well as bigger flow than a direct operated valve.

## Magnalift Operated Valve

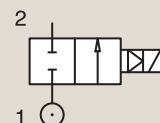
De-energised

Energised



**Example:**

- 221 Series
- 123 Series

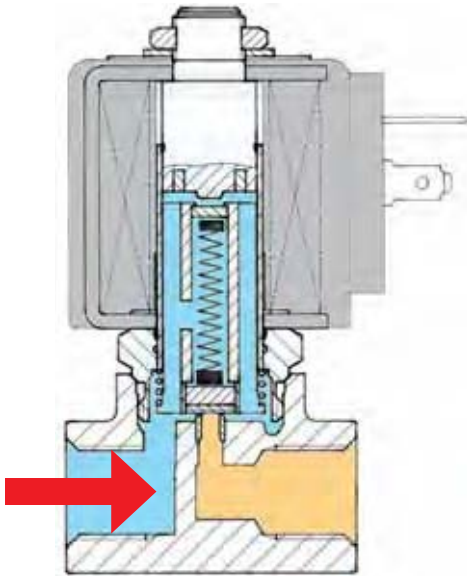


# NORMALLY CLOSED VALVE

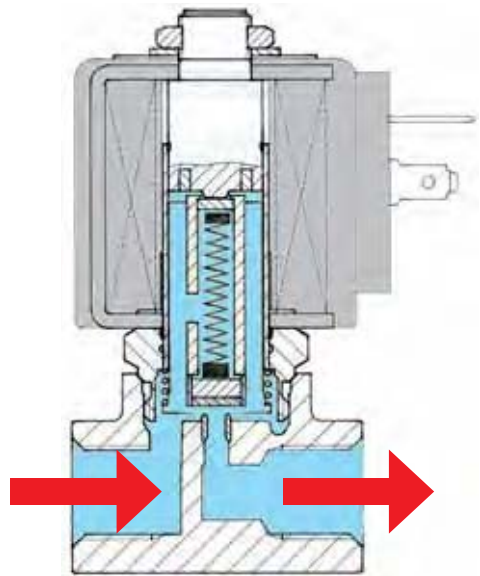
Most of our valves are available in normally closed and normally open configuration when not energized. In certain applications, you may require a normally open valve (open function in case of current failure). The differentiating factor of design of this technology, is based upon the design of the seat seal, which is reversed in comparison to a normally closed valve.

## Normally Closed Valve

De-energised

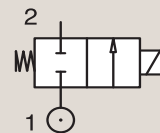


Energised



**Example:**

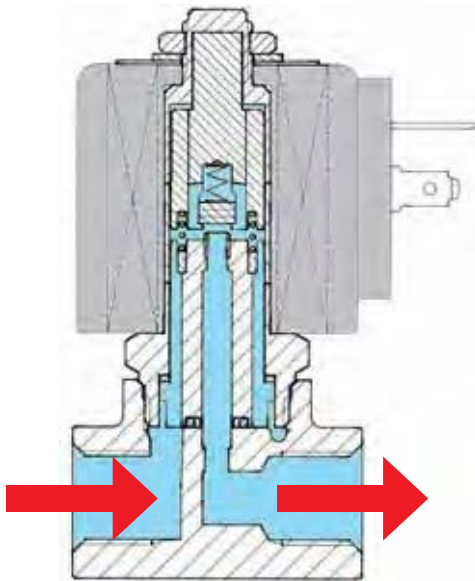
- 121 Series
- 146 Series
- N74 Series



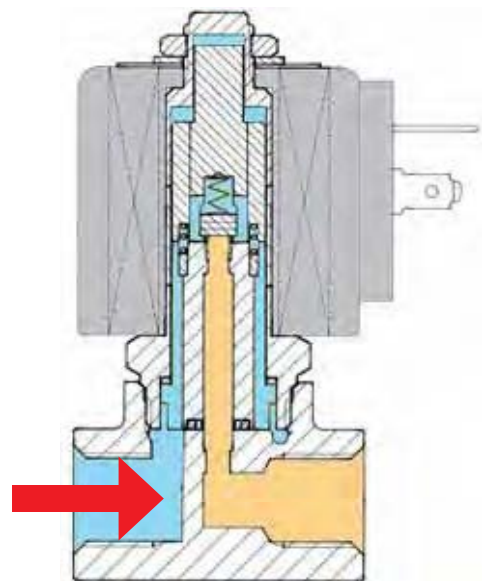
# NORMALLY OPEN VALVE

## Normally Open Valve

De-energised

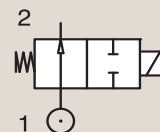


Energised



**Example:**

- 122 Series
- 136 Series
- 7322B Series



# FLOW AND PRESSURE RANGES

## Area of operation:

Each valve principle, as described in the previous pages, has a defined area of operation related to its pressure and flow capabilities. The following graph shows which type of valve is suitable for a certain situation.



Areas of operation of Parker solenoid valves.

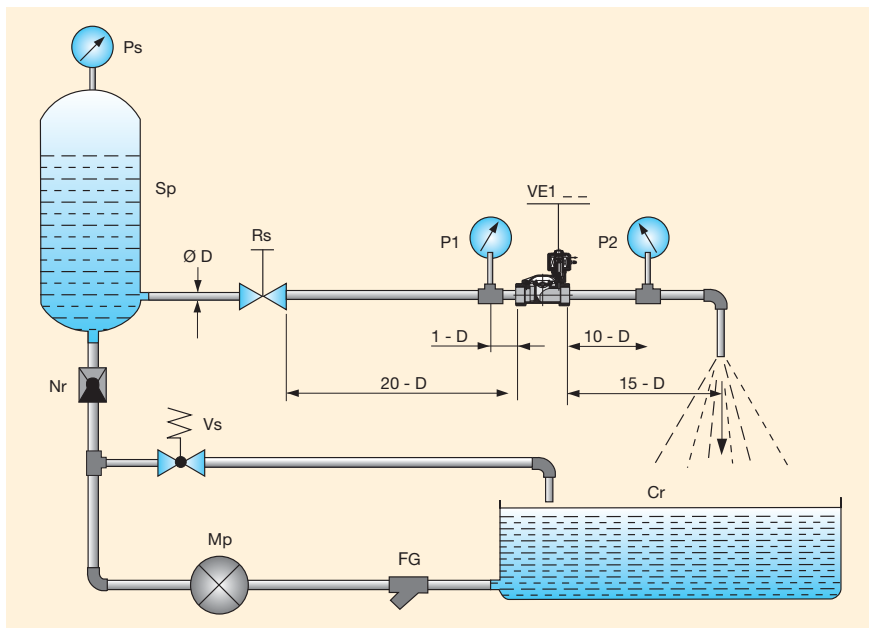
# SIZING SOLENOID VALVES

The correct choice of solenoid valve is essential as it determines the regulation and performance required for practical application on a system. In order to decide on the exact type of solenoid valve, various parameters have to be known.

However the calculation method, based on the flow coefficient  $K_v$ , has proved highly practical as it can be determined on the basis of:

- Required flow rate
- Type of fluid and relative viscosity
- Flow resistance
- Specific gravity and temperature

This flow coefficient  $K_v$  is determined as defined in the VDI/VDE 2173 standards. It represents the flow of water in  $m^3/h$  or  $L/min$  with a temperature from 5 to 30°C which passes through the solenoid valve with a pressure drop of 1 bar.



**Note:**

The flow coefficient used in the USA is known as  $C_v$  and represents the water flow rate in US gallons per minute with a pressure drop  $\Delta P$  of 1 psi.

To convert  $C_v$  in  $K_v$  and vice versa use:

**1  $K_v$  = 0.862  $C_v$**   
**1  $C_v$  = 1.16  $K_v$**

**FG** = Grid Filter    **Mp** = Pump    **Vs** = Safety Valve    **Nr** = Check Valve    **Sp** = Pressure Tank    **Ps** = Static Pressure Manometer

After existing conditions have been converted into this factor  $K_v$ , the type of valve is found by referring to the pages in the related sections in this catalogue.

**Parameters used for selecting the solenoid valve are in the table next page.**

Consult conversion tables of the various units of measurement as defined by the ISO (International Standards Organisation) - I.S. (International System) set out in this catalogue.

# FLOW AND PRESSURE RANGES

## Pressure

symbol (P)  
unit of measurement [bar]  
Working pressure

## Pressure drop

symbol ( $\Delta P$ )  
unit of measurement [bar]  
Pressure difference between inlet ( $P_1$ ) and outlet ( $P_2$ ) of the solenoid valve when a medium is flowing through the valve ( $\Delta P = P_1 - P_2$ ).

## Flow coefficient

symbol (Kv)  
unit of measurement [ $m^3/h$ ]

## Specific gravity of the medium

symbol ( $\gamma$ )  
unit of measurement [ $Kg/dm^3$ ]

## Temperature of the medium

symbol (t)  
unit of measurement [ $^{\circ}C$ ]

## Flow rate

- for liquids  
symbol (Q)  
unit of measurement [ $m^3/h$ ]
- for gases  
symbol (Qn)  
unit of measurement [ $Nm^3/h$ ]
- for steam  
symbol (Qv)  
unit of measurement [ $Kg/h$ ]

## Specific volume

symbol (Vs)  
unit of measurement [ $m^3/Kg$ ]

## a) Solenoid valves for liquids:

**Flow rate:**  $Q = Kv \cdot \sqrt{\frac{\Delta P}{\gamma}}$  where:  $Q = m^3/h$   
 $\Delta P = bar$   
 $\gamma = Kg/dm^3$

**Flow coefficient:**  
 $Kv = Q \cdot \sqrt{\frac{\gamma}{\Delta P}}$

In the case of liquids with viscosity greater than 3<sup>o</sup>E (22 cStokes) the Kv is modified according to the formula:

$$Kv_1 = Kv + C \quad C = \frac{\delta \cdot \sqrt{Kv}}{200 \cdot Q}$$

where C is the viscosity correction factor calculated by means of the formula:  
where:

$\delta$  = kinematic viscosity of the fluid expressed in centistokes  
Kv = flow rate factor of the solenoid valve  
Q = flow rate in  $m^3/h$ .

## Pressure drop:

$$\Delta P = \gamma \cdot \left(\frac{Q}{Kv}\right)^2$$

## b) Solenoid valves for gases:

If  $\Delta P \leq 1/2 P_1$  use the following formulae:

**Flow rate:**  $Q_n = 514 \cdot K_v \cdot \sqrt{\frac{\Delta P \cdot P_2}{\gamma_n \cdot (273 + t)}}$

where:  $Q_n = \text{Nm}^3/\text{h}$      $P_1 = \text{bar}$      $P_2 = \text{bar}$

**Flow coefficient:**  $K_v = \frac{Q_n}{514} \cdot \sqrt{\frac{(273+t) \cdot \gamma_n}{\Delta P \cdot P_2}}$

$t = \text{°C}$   
 $\gamma_n = \text{Kg/m}^3$

**Pressure drop:**  $\Delta P = \frac{(273 + t) \cdot \gamma_n}{P_2} \cdot \frac{Q_n^2}{(514 \cdot K_v)^2}$

If  $\Delta P > 1/2 P_1$  use the following formula:

$$Q_n = 757 \cdot K_v \cdot \sqrt{\frac{\Delta P \cdot P_2}{(273 + t) \cdot \gamma_n}}$$

## c) Solenoid valves for steam:

If  $\Delta P \leq 1/2 P_1$  use the following formulae:

**Flow rate:**  $Q_v = 31,7 \cdot K_v \cdot \sqrt{\frac{\Delta P}{V_s}}$

where:  $Q_v = \text{Kg/h}$      $\Delta P = \text{bar}$      $V_s = \text{m}^3/\text{Kg}$

**Flow coefficient:**  $K_v = \frac{Q_v}{31,7} \cdot \sqrt{\frac{V_s}{\Delta P}}$

**Pressure drop:**  $\Delta P = V_s \cdot \frac{Q_v^2}{(31,7 \cdot K_v)^2}$

If  $\Delta P > 1/2 P_1$  use the following formula:

$$Q_v = 22,4 \cdot K_v \cdot \sqrt{\frac{P_1}{V_s}}$$

### Notes:

#### 1) Should the value $\Delta P$ not be specified, use the following, which is based on experience:

- For liquids only in the case of free discharge  $\Delta P = 90\%$  of the input pressure ( $P_1$ ).
- For gases never use a  $\Delta P$  of more than 50% of the absolute inlet pressure, since the excessive pressure drop may cause an irregular flow rate. In most cases,  $\Delta P$  can be considered as 10% of the input pressure.

#### 2) Specific volume value ( $V_s$ ) for dry saturated steam, see the table in diagram 3.

# FLOW RATE FOR LIQUIDS

The liquid flow through a pipe or a valve is given by:

$$Q = K_v \cdot \sqrt{\frac{\Delta P}{\gamma}}$$

- Where
- Q** = Flow [l/min]
  - ΔP** = Differential Pressure [bar]
  - γ** = Density of the fluid [kg/dm<sup>3</sup>]  
(water γ = 1 [kg/d m<sup>3</sup>])
  - kv** = Flow Factor [m<sup>3</sup>/h]

## Flow factor kv:

The kv flow factor of a valve is defined as the flow rate of water in litres per minute with a pressure drop of 1 bar across the valve.

Valve manufactureres use different definitions for kv. It may be expressed in l/h or m<sup>3</sup>/h.

Care should therefore be taken when comparing values.

## Maximum flow rate Qmax.

For particular 2-way valves the maximum flow must be limited for reasons of mechanical resistance and durability.

A very high flow velocity may dislocate a popet sealing or a diaphragm.

Maximum flow rates are indicated in the catalogue.

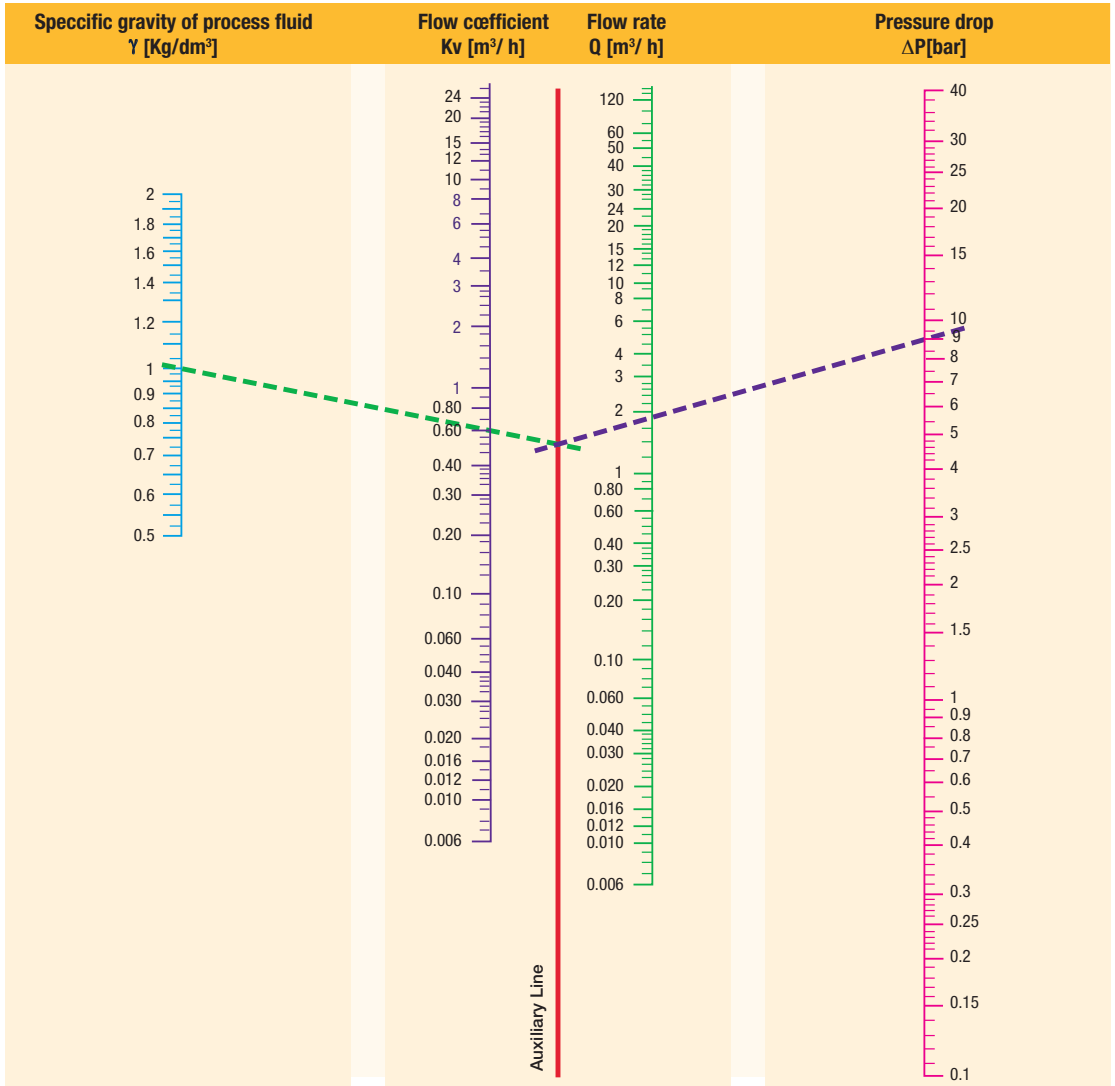
**Flow factors**

<b>Kv</b> l/min	<b>KV</b> m <sup>3</sup> /h	<b>Qn</b> l/min
--------------------	--------------------------------	--------------------

## NORMALLY CLOSED

Port size	Orifice Ø	Flow factors			Operating Pressure Differential			Fluid Temp.		Seat Seal	Parker LUCIFER® Valves			Power		Coil Group	Dwg. No.
		Kv l/min	KV m <sup>3</sup> /h	Qn l/min	Min bar	Max(MOPD) AC bar	DC bar	Min °C	Max °C		Valve Ref.	Housing Ref.	Coil Ref.	AC W	DC W		
BSP	mm																





Monogram for liquid flow calculation

Specific gravity of the most common fluids ( $\gamma = \text{Kg/dm}^3$ ) - ( $t = 15^\circ\text{C}$ - $P = 760 \text{ mm Hg}$ )			
Acetone	0.76	Benzenol	0.90
Water	1.00	Beer	1.02
Sea water	1.02	Hexane	0.66
Ethyl alcohol	0.79	Ethane	0.68
Methyl alcohol	0.81	Diesel oil	0.70
Petrol	0.68	Milk	1.03
		Naphtha	0.76
		Pentane	0.63
		Vegetable oil	0.92
		Hydraulic oil	0.92
		Wine	0.95

## FLOW RATE FOR GASES

The gas flow through a valve is given by:

$$Q = C \cdot P_1 \cdot k_T \cdot \omega \cdot \gamma_{\text{air}} / \gamma_{\text{gas}}$$

Where

- Q** = Flow Rate [**dm<sup>3</sup>/s**]
- C** = Conductance [**dm<sup>3</sup>/s.bar**]
- P<sub>1</sub>** = Inlet Pressure [**bar abs**]
- γ** = Specific Weight [**kg/m<sup>3</sup>**]
- k<sub>T</sub>** = Temperature Correction Factor

$$\omega = \sqrt{1 - \frac{P_2/P_1 - b}{1 - b}}$$

$$k_T = \sqrt{\frac{293}{273 + \text{Temp. } ^\circ\text{C}}}$$

### Nominal Flow Q<sub>n</sub>:

Calculations can be made with specific flow factors based on the CETOP RP 50P standard. For practical purposes and ease of valve selection the catalogue shows the nominal flow Q<sub>n</sub>. The nominal flow Q<sub>n</sub> is defined as the flow rate (L/min) of air across the valve when the inlet pressure P<sub>1</sub> = 6 bar and the pressure drop ΔP = 1 bar.

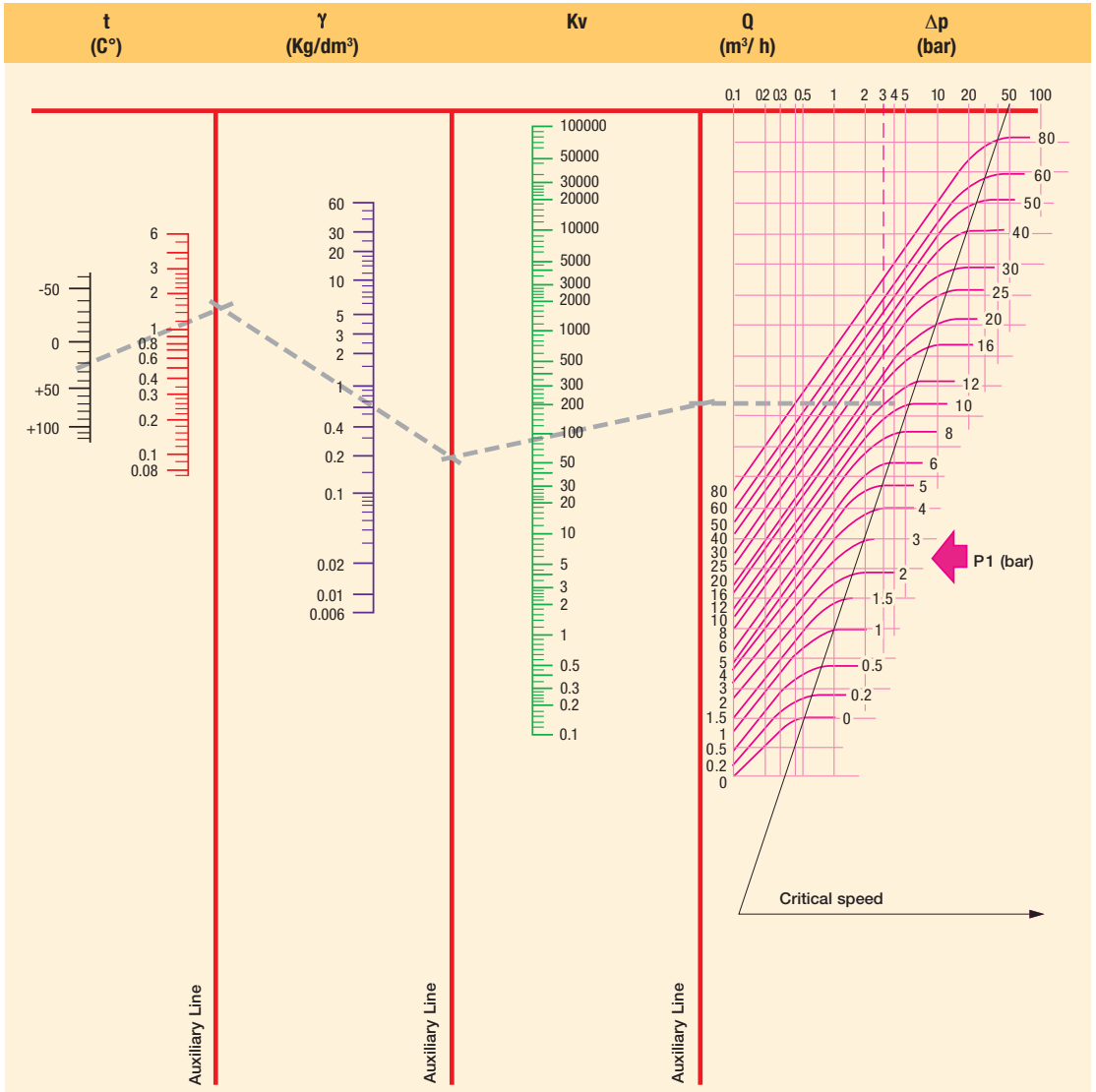
#### N.B.

The values of the flow factors and flow rates mentioned in catalogues are subject to +/-15% tolerances.

### Pneumatic application: $\gamma_{\text{air}} / \gamma_{\text{gas}} = 1$

**a) Choked flow conditions**  $P_2 \leq b \cdot P_1$   
in this case  $\omega = 1 \rightarrow Q = C \cdot P_1 \cdot k_T$

**b) Free flow conditions**  $P_2 > b \cdot P_1$   
in this case  $\rightarrow Q = C \cdot P_1 \cdot k_T \cdot \omega$



t = Fluid Temperature    γN = Specific Gravity    Kv = Flow Coefficient    Qn = Flow Rate    Δp = Pressure Drop    P1 = Inlet Pressure

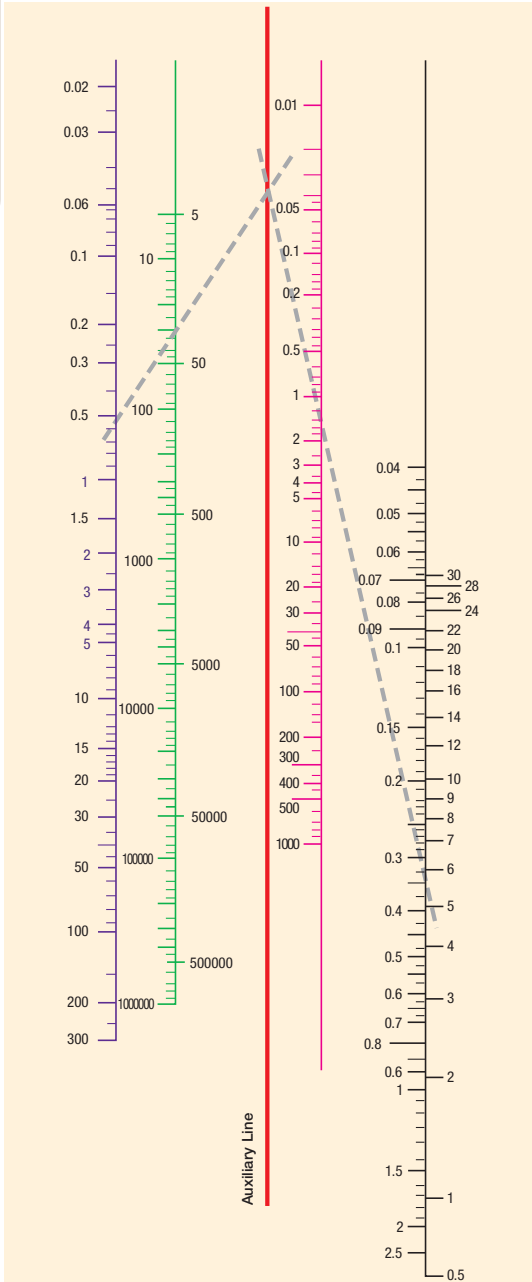
Specific gravity of the most common gases (γ = Kg/m³) - (t = 0°C - P = 760mm Hg)

Acetylene	1.176	Helium	0.179	Natural gas	0.723
Carbon dioxide	1.965	Ethane	1.035	Methane	0.722
Air	1.293	Ethylene	1.259	Carbon monoxide	1.250
Argon	1.780	Hydrogen	0.089	Oxygen	1.429
Nitrogen	1.255			Propane	1.520
Butane	2.000			Steam	0.805

# TECHNICAL INFORMATION

## Diagram 3 for Dry Saturated Steam

## Steam (Dry Saturated) Data



P <sub>2</sub> bar	Temp. °C	Vs m <sup>3</sup> /Kg	P <sub>2</sub> bar	Temp. °C	Vs m <sup>3</sup> /Kg
0.01	6.6	131.600	10.00	179.0	0.200
0.02	17.1	68.300	110.00	183.2	0.181
0.03	23.7	46.500	120.00	187.1	0.176
0.04	28.6	35.500	13.00	190.7	0.155
0.05	32.5	28.700	14.00	194.1	0.144
0.06	35.8	24.200	15.00	197.4	0.135
0.08	41.1	18.500	16.00	200.4	0.126
0.10	45.4	15.000	17.00	203.4	0.119
0.20	59.7	7.800	18.00	206.2	0.113
0.30	68.7	5.330	19.00	208.8	0.107
0.40	75.4	4.070	20.00	211.4	0.102
0.50	80.9	3.300	22.00	216.2	0.093
0.60	85.5	2.790	24.00	220.8	0.085
0.70	89.5	2.410	26.00	225.0	0.079
0.80	93.0	2.130	28.00	229.0	0.073
0.90	96.2	1.910	30.00	232.8	0.068
1.00	99.1	1.730	32.00	236.4	0.064
1.50	110.8	1.180	34.00	239.8	0.060
2.00	119.6	0.900	36.00	243.1	0.057
2.50	126.8	0.730	38.00	246.2	0.053
3.00	132.9	0.620	40.00	249.2	0.051
3.50	138.2	0.530	45.00	256.2	0.045
4.00	142.9	0.470	50.00	262.7	0.040
4.50	147.2	0.420	55.00	268.7	0.036
5.00	151.1	0.380	60.00	274.3	0.033
5.50	154.7	0.350	65.00	279.6	0.030
6.00	158.1	0.320	70.00	284.5	0.028
6.50	161.2	0.300	80.00	293.6	0.024
7.00	164.2	0.280	90.00	301.9	0.021
7.50	167.0	0.260	100.00	309.5	0.018
8.00	169.6	0.250	150.00	340.5	0.011
8.50	172.1	0.230	200.00	364.2	0.006
9.00	174.5	0.220	225.00	374.0	0.003
9.50	176.8	0.210			

Kv = Flow Coefficient

Qv = Flow Rate

Δp = Pressure Drop

Vs = Specific Volume

P<sub>2</sub> = Outlet Pressure

# VISCOSITY CONVERSION TABLE

Centistokes cStokes mm <sup>2</sup> /S	°Engler °E	Saybolt Universal Second SSU	Rewood Second N°1 SRW N°1
1	1	-	-
12	2	65	55
22	3	100	90
30	4	140	120
28	5	175	155
45	6	210	185
60	8	275	245
75	10	345	305
90	12	415	370
115	15	525	465
150	20	685	610
200	26	910	810
300	39	1 385	1 215
400	53	1 820	1 620
500	66	2 275	2 025
750	97	3 365	2 995
1 500	197	6 820	6 075

## OTHER USEFUL FORMULAS

### Formulas:

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 9/5) + 32$$

$$\text{m}^3/\text{h} = \text{l}/\text{min} \times 0.06$$

$$\text{l}/\text{min} = \text{m}^3/\text{h} \times 16,67$$

$$\text{m}^3/\text{sec} = \text{m}^3/\text{h} \times 2,778 \times 10^{-4}$$

$$\text{m}^3/\text{sec} = \text{l}/\text{min} \times 1,667 \times 10^{-5}$$

### Examples:

$$(167^{\circ}\text{F}-32) \times 5/9 = 75^{\circ}\text{C}$$

$$(30^{\circ}\text{C} \times 9/5) + 32 = 86^{\circ}\text{F}$$

$$100 \text{ l}/\text{min} \times 0.06 = 6 \text{ m}^3/\text{h}$$

$$9 \text{ m}^3/\text{h} \times 16,67 = 150 \text{ l}/\text{min}$$

$$18.000 \text{ m}^3/\text{h} \times 2.778 \times 10^{-4} = 5 \text{ m}^3/\text{sec}$$

$$479.904 \text{ l}/\text{min} \times 1.667 \times 10^{-5} = 8 \text{ m}^3/\text{sec}$$



APPENDIX

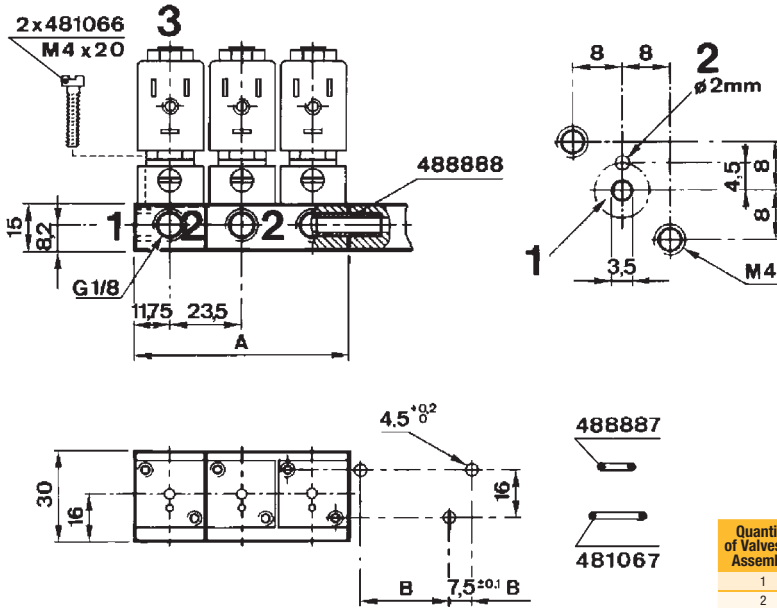
## TABLE OF SUB-BASES FOR VALVES (Examples)

This table is showing examples of existing Sub-bases and possible Valves associations. For more detail see sub-bases drawings in the following pages.

Sub-Base Reference	488860.01 /.02/.03 /.04/.05	486162 /63/64	487165 /67/69	485635 /36/37	481168.02 /.04/.06 /.08/.10	481964.04 /.06/.08/.10	485291	485290	XGSPG1 /XGSPG2
Drawing	1	2	3	4	5	6	7	8	9
Valve Reference									
131F4480	●								
131F4480		●							
131F46		●							
131F4650		●							
131M74	●								
131M74	●								
131M7450	●								
131M7450	●								
131M75	●								
131M7550	●								
132F43		●							
132F44		●							
132F46		●							
133F46		●							
133F4650		●							
2019F1									●
3019F1									●
301XGR									●
341F34				●					
341F3403				●					
341L11						●			
341L2190								●	
341L9101					●				
345F34				●					
347L11						●			
E131F26			●						
E131F43		●							
E131F4350		●							
E131F44		●							
E131F4450		●							
E133F43		●							
E133F4350		●							
E133F44		●							
E133F4450		●							
E331L21							●		

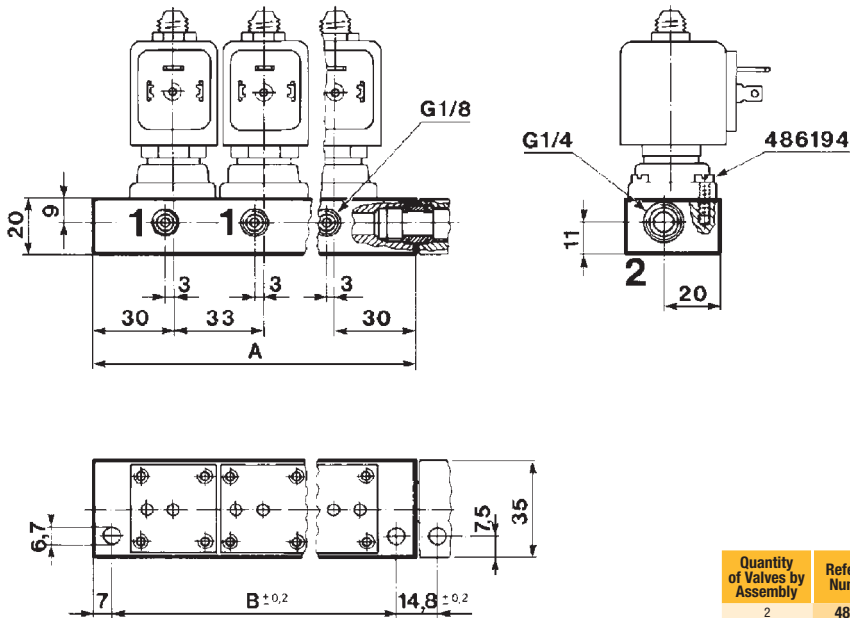


TABLE OF SUB-BASES FOR VALVES (Examples)



Quantity of Valves by Assembly	Reference Numbers	A mm	B mm	Weight g
1	488860-01	23.5	16.0 ± 0.1	25
2	488860-02	47.0	39.5 ± 0.1	45
3	488860-03	70.5	63.0 ± 0.1	70
4	488860-04	94.0	86.5 ± 0.1	120
5	488860-05	117.5	110.0 ± 0.1	120

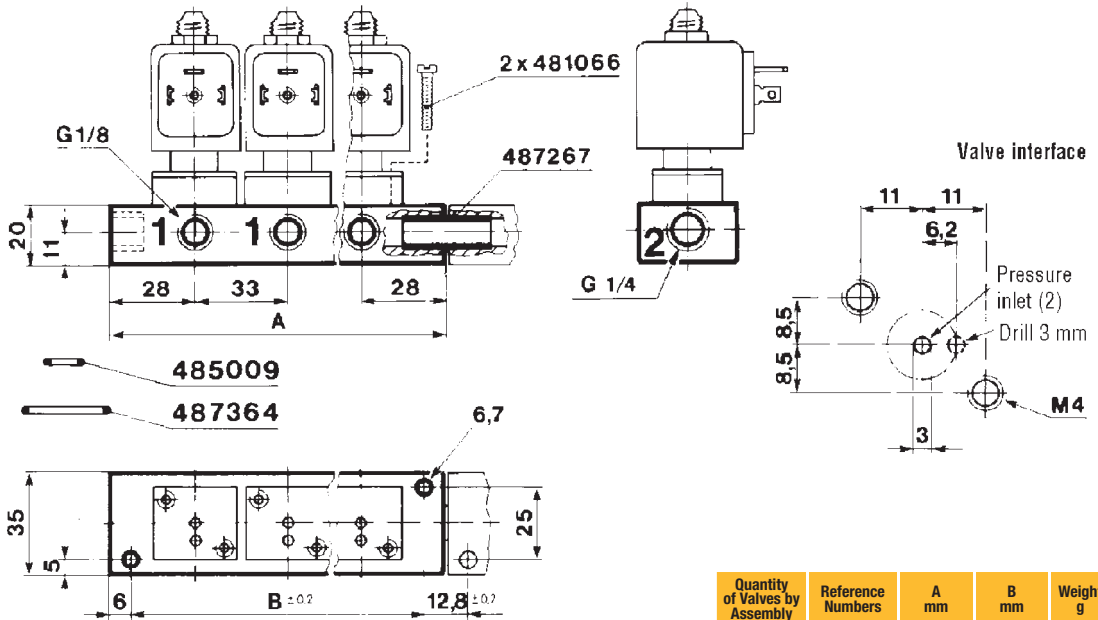
Drawing 1



Quantity of Valves by Assembly	Reference Numbers	A mm	B mm	Weight g
2	486162	93	79	150
3	486163	126	112	210
5	486164	192	178	420

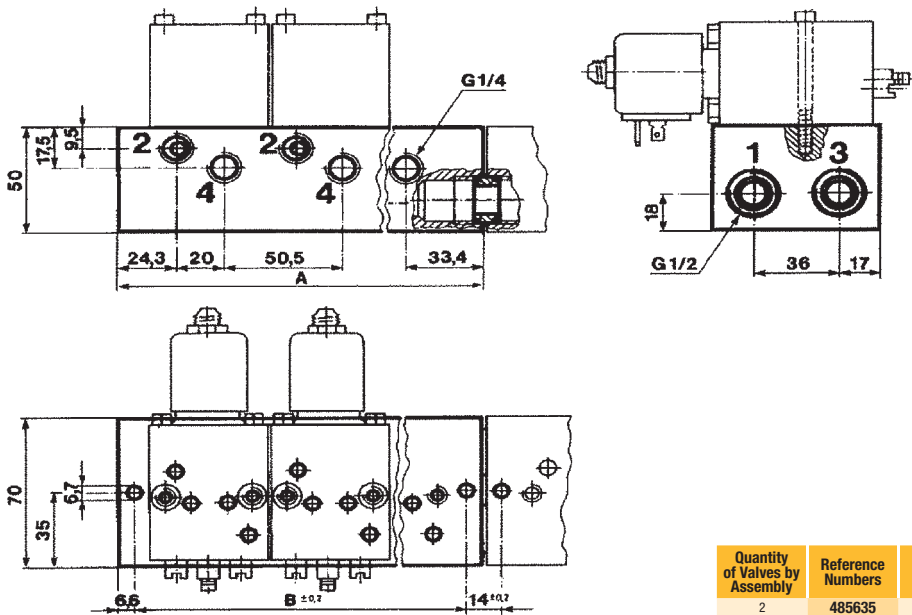
Drawing 2

TABLE OF SUB-BASES FOR VALVES (Examples)



Drawing 3

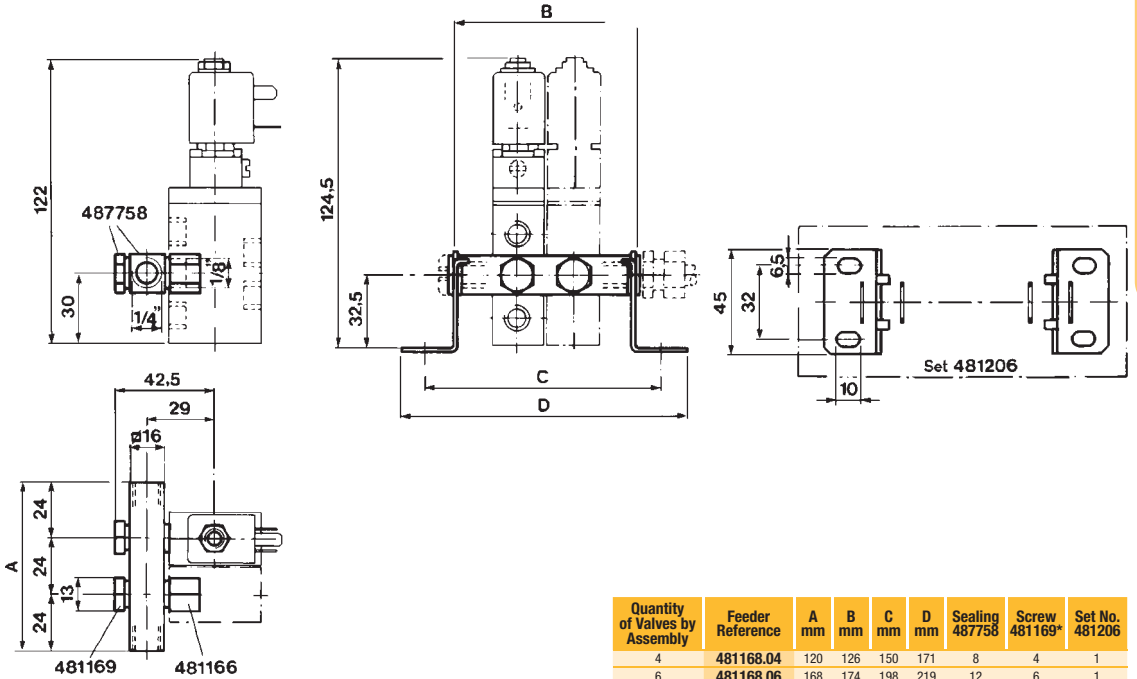
Quantity of Valves by Assembly	Reference Numbers	A mm	B mm	Weight g
1	487165	56	44	85
2	487167	89	77	135
3	487169	188	176	300



Drawing 4

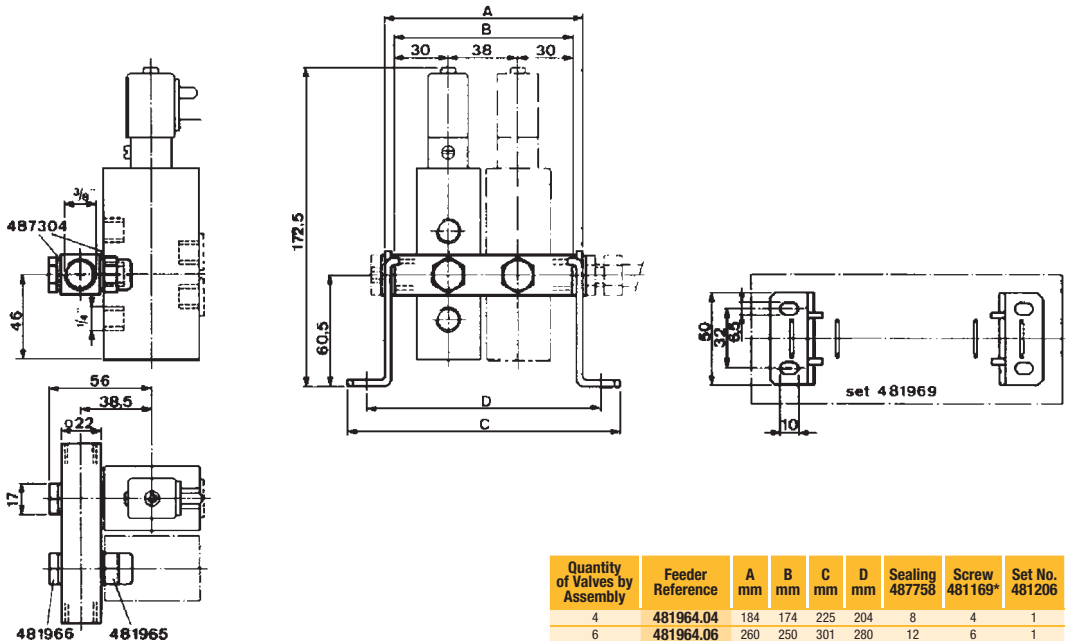
Quantity of Valves by Assembly	Reference Numbers	A mm	B mm	Weight g
2	485635	128.2	115.0	1000
3	485636	178.7	165.5	1400
5	485637	279.7	266.5	2250

TABLE OF SUB-BASES FOR VALVES (Examples)



Drawing 5

Quantity of Valves by Assembly	Feeder Reference	A mm	B mm	C mm	D mm	Sealing 487758	Screw 481169*	Set No. 481206
4	481168.04	120	126	150	171	8	4	1
6	481168.06	168	174	198	219	12	6	1
8	481168.08	216	222	246	267	16	8	1
10	481168.10	264	270	294	315	20	10	1

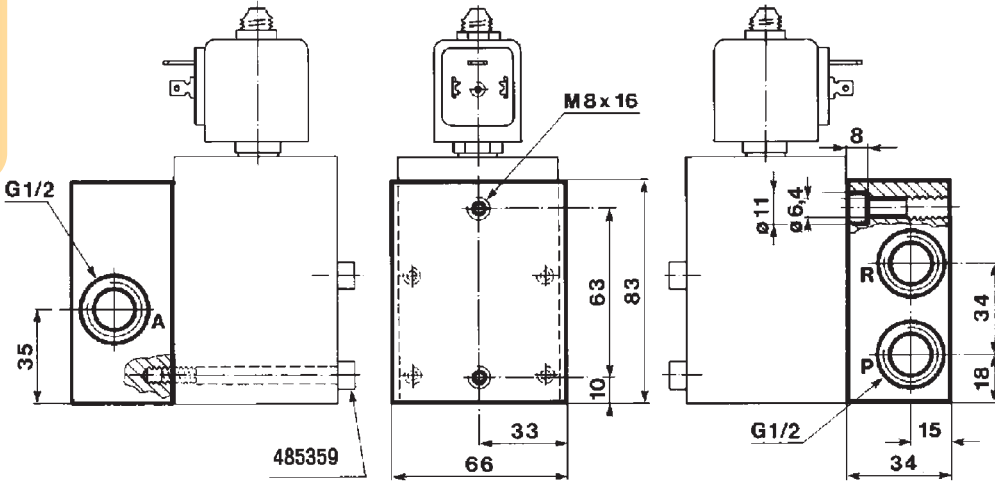


Drawing 6

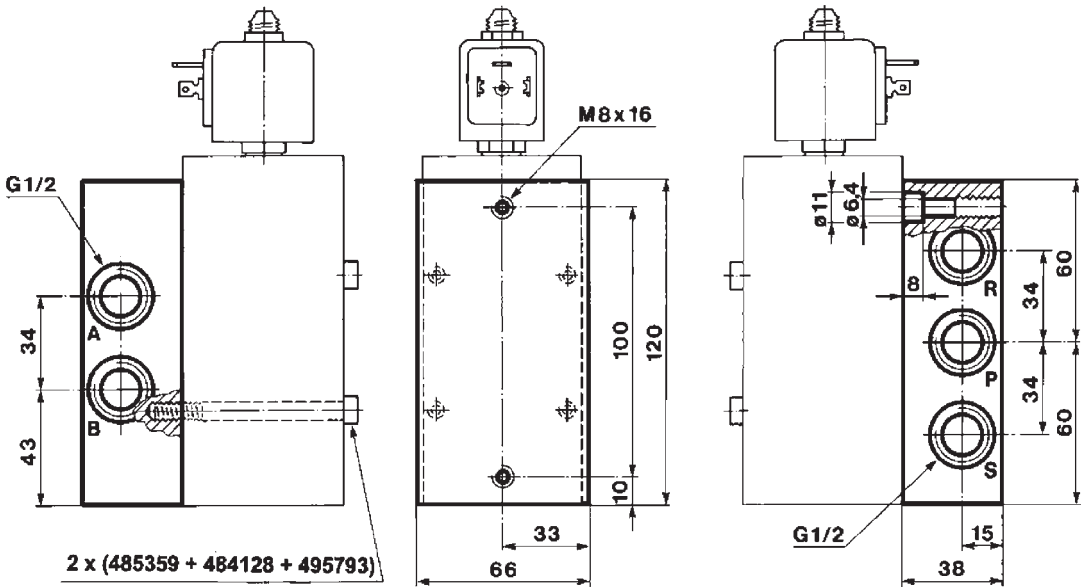
Quantity of Valves by Assembly	Feeder Reference	A mm	B mm	C mm	D mm	Sealing 487758	Screw 481169*	Set No. 481206
4	481964.04	184	174	225	204	8	4	1
6	481964.06	260	250	301	280	12	6	1
8	481964.08	336	326	377	356	16	8	1
10	481964.10	412	402	453	432	20	10	1

TABLE OF SUB-BASES FOR VALVES (Examples)

Sub-base 485291



Drawing 7



Drawing 8

## INDEX FOR EXPLOSION PROOF ELECTRICAL PARTS

Coil Reference	Coil Group	Designation	Power DC Pn ( W )	Power AC Pn ( W )	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection ( Gas )	Page
496637	1.2	Explosion proof electrical part "nc AC", 22 mm, double frequency	3.0	3.0	-40°C to +50°C	-	IP65	II 3 GD Ex tc IICT 95°C	271
495880	2.0/2.2	Explosion proof electrical part "nc AC", 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3	275
496155	2.0/2.2	Explosion proof increased safety electrical part "nc AC", 50 mm	14.0	14.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	277
495915	4.0	Explosion proof increased safety electrical part "nc AC", 50 mm	13.0	11.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	276
495870	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
495875	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	274
496110	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	-	9.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
495865	1.1	Explosion proof electrical part "nc AC", low power, 22 mm	2.5	2.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5	270
496125	6.0	Explosion proof electrical part "nc AC", low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5 / T6	273
492670	2.0/2.1	Explosion proof encapsulated electrical part "mb", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4	280
482605	1.1	Explosion proof encapsulated electrical part "mb", 32 mm	5.0	4.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
482606	1.1	Explosion proof encapsulated electrical part "mb", low power, 32 mm	2.5	2.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
492070	2.0/2.1	Explosion proof encapsulated electrical part "mb", with water proof metal housing, 50 mm	8.0	9.0	-40°C to +65°C	-	IP67	II 2 GD Ex mb II T4 / T5	281
HZ10	2.0/2.1	Explosion proof encapsulated electrical part "mb", double frequency	8.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T3 / T5	282
HZ11	2.0/2.2	Explosion proof encapsulated electrical part "mb", double frequency	14.0	14	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T3 / T5	283
497105	10.3	Flame proof electrical part "db", 50 mm	8.0	8.0	-50°C to +80°C	-	IP66	Ex db IIC T4 / T5 / T6	278
493640	2.0/2.1	Flame proof encapsulated electrical part "db mb", double frequency	8.0	8.0	-40°C to +75°C	-	IP65	II 2 GD Ex db mb IIC T4 / T5	288
495905	2.0/2.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	285
496560	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	286
496800	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	287
495900	6.0	Flame proof encapsulated electrical part "db mb", low power, 37 mm	2.0	2.5	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	284
496555	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	286
496700	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	287
494040	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +90°C	-	IP67	II 2 GD Ex eb IIC T3 / T4	289
483371	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex eb IIC T4	289
492190	2.0/2.1	Explosion proof increased safety and encapsulated elect. part "eb", 50 mm	9.0	11.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T3 / T4	292
492310	10.1	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	6.0	6.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T4 / T5	290
492210	9.0	Explosion proof increased safety and encapsulated electrical part "eb", " Booster", 50 mm	1.0 to 1.8	-	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T5 / T6	291
495910	8.0	Explosion proof intrinsically safe electrical part "ia", "booster", 37 mm	0.3 to 1.2	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	294
496565	9.0	Explosion proof intrinsically safe electrical part "ia", " Booster", 37 mm	0.77 to 2.58	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	295
483580.01	7.0	Explosion proof intrinsically safe electrical part "ia", 32 mm	3.0	-	-40°C to +55°C	-	IP65	II 1 GD Ex ia IIC T6	293
488650.01	7.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	0.3 to 3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	298
492965.01	9.0	Explosion proof intrinsically safe electrical part "ia", " Booster", 50 mm	0.3 to 2.3	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	296
482870.01	12.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	297
490885	7.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	298
492335	12.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	297

# TABLE OF VOLTAGE CODES FOR COILS AND ELECTRICAL PARTS

This table is showing the most commonly used voltage codes, for other voltages, please ask us.

VOLTAGE CODES			C1	C2	N7	L8	C4	C5	C7	P1	A5	0A	S5	P2	1P	6J	0P	P3	K8	
Coil	Group	Sub-Group	12 DC	24 DC	28 DC	30 DC	48 DC	110 DC	220 DC	100/50-60	110/50	110-115/50	110-115/50 120/60	110/50-60	110-115/50-60	110-115/60	100/50-115/60	110/50-120/60	115/60	
481180	1.1	-	●	●								●								
482605	1.1	-	●	●																
482606	1.1	-	●	●			●	●				●				●				
483590	1.1	-											●							
488143	1.1	-								●										
488980	1.1	-	●	●			●	●				●				●				
492912	1.1	-		●																
496131	1.2	-	●	●			●	●						●						●
496482	1.2	-	●	●			●	●						●						●
496637	1.2	-	●	●			●	●						●						●
481000	2.0	2.1	●	●			●	●	●			●				●				
481865	2.0	2.1	●	●			●	●			●									●
483371	2.0	2.1	●	●			●	●	●			●				●				
483510	2.0	2.1											●							
483520	2.0	2.1																		
485100	2.0	2.1		●	●				●			●								
488553	2.0	2.1								●										
491514	2.0	2.1	●	●		●													●	
492070	2.0	2.1	●	●			●	●						●						
492190	2.0	2.1	●	●			●	●	●					●						
492453	2.0	2.1	●	●			●	●			●									
492670	2.0	2.1	●	●			●	●			●									
493640	2.0	2.1		●			●				●								●	
494040	2.0	2.1		●					●			●								
495870	2.0	2.1		●			●	●			●									
495875	2.0	2.1		●																
495905	2.0	2.1		●			●	●												●
496081	2.0	2.1	●	●									●							
496110	2.0	2.1											●							
HZ10	2.0	2.1																	●	



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VOLTAGE CODES			C1	C2	N7	L8	C4	C5	C7	P1	A5	0A	S5	P2	1P	6J	0P	P3	K8
Coil	Group	Sub-Group	12 DC	24 DC	28 DC	30 DC	48 DC	110 DC	220 DC	100/50-60	110/50	110-115/50	110-115/50 120/60	110/50-60	110-115/50-60	110-115/60	100/50-115/60	110/50-120/60	115/60
481044	2.0	2.2									●						●		
486265	2.0	2.2	●	●			●				●						●		
492425	2.0	2.2	●	●							●								
495880	2.0	2.2		●							●								
496155	2.0	2.2		●			●				●								
HZ11	2.0	2.2	●	●			●											●	
482730	3.0	-		●			●				●								●
484990	4.0	-													●				
485400	4.0	-	●	●			●	●											
495915	4.0	-		●			●								●				
482740	6.0	-		●			●	●											
495900	6.0	-	●	●			●	●											●
496125	6.0	-		●			●	●											
483580.01	7.0	-			●														
488650.01	7.0	-			●														
490885	7.0	-				●													
495910	8.0	-			●														
492210	9.0	-		●															
492965.01	9.0	-			●														
496565	9.0	-			●														
492310	10.1	-	●	●			●	●	●					●					
496560	10.1	-		●			●												
496800	10.1	-		●			●												
496895	10.1	-		●			●												
496555	10.2	-		●			●												
496700	10.2	-		●			●												
497105	10.3	-	●	●			●	●							●				
492335	12.0	-				●													





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Coil Reference	Coil Group	Designation	Power DC Pn (W)	Power AC Pn (W)	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection (Gas)	Page
481000	2.0/2.1	Coil with screw terminal, 40 mm	8.0	8.0	-40°C to +50°C	-	IP 44 to 67	-	263
481044	2.0/2.2	Coil with screw terminal High power, 40 mm	-	14.0	-40°C to +50°C	-	IP 44 to 67	-	264
481180	1.1	Coil for DIN plug connection, 22 mm	5.0	4.0	-40°C to +50°C	-	IP65	-	254
481865	2.0/2.1	Coil for DIN plug connection, 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	-	248
482605	1.1	Explosion proof encapsulated electrical part "mb", 22 mm	5.0	4.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
482606	1.1	Explosion proof encapsulated electrical part "mb", low power, 22 mm	2.5	2.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
482730	3.0	Coil for DIN plug connection, reduced power, 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	-	250
482740	6.0	Coil for DIN plug connection, low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	-	251
482870.01	12.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	297
483371	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex eb IIC T4	289
483510	2.0/2.1	Coil for DIN plug connection, 32 mm	-	9.0	-40°C to +50°C	-	IP65	-	248
483520	2.0/2.1	Coil with screw terminal, double frequency, 40 mm	-	9.0	-40°C to +50°C	-	IP 44 to 67	-	263
483580.01	7.0	Explosion proof intrinsically safe electrical part "ia", 32 mm	3.0	-	-40°C to +55°C	-	IP65	II 1 GD Ex ia IIC T6	293
483590	1.1	Coil for DIN plug connection, double frequency, 22 mm	-	3.0	-40°C to +50°C	-	IP65	-	256
483816	2.2	Coil for DIN plug connection for Jet Valves, 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	-	253
484990	4.0	Coil with screw terminal, bistable, for impulse applications, 40 mm	-	11.0	-40°C to +50°C	-	IP44	-	267
485100	2.0/2.1	Coil with screw terminal, high temperature, 40 mm	8.0	8.0	-40°C to +50°C	-	IP 44 to 67	-	265
485400	4.0	Coil with screw terminal, bistable, for impulse applications, 40 mm	13.0	-	-40°C to +50°C	-	IP44	-	267
486265	2.0/2.2	Coil with screw terminal, high temperature-high power, 40 mm	14.0	14.0	-40°C to +50°C	-	IP 44 to 67	-	265
488143	1.1	Coil for DIN plug connection, double frequency, 22 mm	-	2.5	-40°C to +50°C	-	IP65	-	257
488553	2.0/2.1	Coil with screw terminal, double frequency, H class, 40 mm	-	9.0	-40°C to +50°C	-	IP 44 to 67	-	266
488650.01	7.0	Explosion proof intrinsically safe electrical part "ia", 50 mm	0.3 to 3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	298
488980	1.1	Coil for DIN plug connection, low power, 22 mm	2.5	2.0	-40°C to +50°C	-	IP65	-	254
490885	7.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	298
491514	2.0/2.1	Coil for DIN plug connection, 32 mm, UL class F	-	11.0	-40°C to +50°C	●	IP65	-	252
492070	2.0/2.1	Explosion proof encapsulated electrical part "mb", with water proof metal housing, 50mm	8.0	9.0	-40°C to +65°C	-	IP67	II 2 GD Ex mb II T4 / T5	281
492190	2.0/2.1	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	9.0	11.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T3 / T4	292
492210	9.0	Explosion proof increased safety and encapsulated electrical part "eb", "Booster", 50 mm	1.0 to 1.8	-	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T5 / T6	291
492310	10.1	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	6.0	6.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T4 / T5	290
492335	12.0	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div. I, Gr. A, B, C, D	297
492425	2.0/2.2	Coil for DIN plug connection, high temperature, 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	-	249

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Coil Reference	Coil Group	Designation	Power DC Pn ( W )	Power AC Pn (W)	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection (Gas)	Page
492453	2.0/2.1	Coil for DIN plug connection, high temperature, 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	-	249
492670	2.0/2.1	Explosion proof encapsulated electrical part "mb", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4	280
492912	1.1	Coil for DIN plug connection, 22 mm, UL	4.0	3.0	-40°C to +50°C	●	IP65	-	255
492965.01	9.0	Explosion proof intrinsically safe electrical part "ia", "Booster", 50 mm	0.3 to 2.3	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	296
493640	2.0/2.1	Flame proof encapsulated electrical part "db mb", double frequency	8.0	8.0	-40°C to +75°C	-	IP65	II 2 GD Ex db mb IIC T4	288
494040	2.0/2.1	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +90°C	-	IP67	II 2 GD Ex eb IIC T3 / T4	289
495870	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
495875	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	274
495880	2.0/2.2	Explosion proof electrical part "nc AC", 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3	275
495900	6.0	Flame proof encapsulated electrical part "db mb", low power, 37 mm	2.0	2.5	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	284
495905	2.0/2.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	285
495910	8.0	Explosion proof intrinsically safe electrical part "ia", "booster", 37 mm	0.3 to 1.2	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	294
495915	4.0	Explosion proof increased safety electrical part "nc AC", 50 mm	13.0	11.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	276
496081	2.0/2.1	Coil with flying leads, IP 67, 32 mm	9.0	9.0	-40°C to +50°C	-	IP67	-	261
496082	2.0/2.2	Coil with flying leads, IP 67, 32 mm, UL	16.0	13.0-14.0	-40°C to +120°C	●	IP67	-	262
496110	2.0/2.1	Explosion proof electrical part "nc AC", 32 mm	-	9.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
496125	6.0	Explosion proof electrical part "nc AC", low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5 / T6	273
496131	1.2	Coil for DIN plug connection, double frequency, 22 mm	3.0	3.0	-40°C to +50°C	-	IP65	-	258
496155	2.0/2.2	Explosion proof increased safety electrical part "nc AC", 50 mm	14.0	14.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	277
496482	1.2	Coil for DIN plug connection, double frequency coil, 22 mm	3.0	3.0	-40°C to +50°C	-	IP65	-	259
496555	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	286
496560	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	286
496565	9.0	Explosion proof intrinsically safe electrical part "ia", "Booster", 37 mm	0.77 to 2.58	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	295
496637	1.2	Explosion proof electrical part "nc AC", double frequency, 22 mm	3.0	3.0	-40°C to +50°C	-	IP65	II 3 D Ex TC IIC T 95°C	271
496700	10.2	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 G Ex db mb IIC T4 / T5 / T6	287
496800	10.1	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	287
496895	10.1	Coil for DIN plug connection for oil and gas, 37 mm	8.0	8.0	-40°C to +50°C	-	IP65	-	260
497105	10.3	Flame proof stainless steel electrical part "db"	8.0	8.0	-50°C to +80°C	-	IP66	II 2 GD Ex db IIC T4 / T5 / T6	278
HZ10	2.0/2.1	Explosion proof encapsulated electrical part "mb", double frequency	8.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4 / T5	282
HZ11	2.0/2.2	Explosion proof encapsulated electrical part "mb", double frequency	14.0	14.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4 / T5	283

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Coil Group	Coil Reference	Designation	Power DC Pn ( W )	Power AC Pn ( W )	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection (Gas)	Page
1.1	488980	Coil for DIN plug connection, low power, 22 mm	2.5	2.0	-40°C to +50°C	-	IP65	-	254
1.1	492912	Coil for DIN plug connection, UL 22 mm	4.0	3.0	-40°C to +50°C	●	IP65	-	255
1.1	481180	Coil for DIN plug connection, 22 mm	5.0	4.0	-40°C to +50°C	-	IP65	-	254
1.1	488143	Coil for DIN plug connection, double frequency, 22 mm	-	2.5	-40°C to +50°C	-	IP65	-	257
1.1	483590	Coil for DIN plug connection, double frequency, 22 mm	-	3.0	-40°C to +50°C	-	IP65	-	256
1.1	482606	Explosion proof encapsulated electrical part "mb", low power, 22 mm	2.5	2.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
1.1	482605	Explosion proof encapsulated electrical part "mb", 22 mm	5.0	4.0	-40°C to +65°C	-	IP65	II 2 GD Ex mb II T4 / T5	279
1.2	496131	Coil for DIN plug connection, double frequency, 22 mm	3.0	3.0	-40°C to +50°C	-	IP65	-	258
1.2	496482	Coil for DIN plug connection, double frequency coil, 22 mm	3.0	3.0	-40°C to +50°C	-	IP65	-	259
1.2	496637	Explosion proof electrical part "nc AC", 22 mm, double frequency	3.0	3.0	-40°C to +50°C	-	IP65	II 3 D Ex tc IIC T 95°C	271
2.0/2.1	481000	Coil with screw terminal, 40 mm	8.0	8.0	-40°C to +50°C	-	IP 44 to 67	-	263
2.0/2.1	485100	Coil with screw terminal, high temperature, 40 mm	8.0	8.0	-40°C to +50°C	-	IP 44 to 67	-	265
2.0/2.1	481865	Coil for DIN plug connection, 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	-	248
2.0/2.1	492453	Coil for DIN plug connection, high temperature, 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	-	249
2.0/2.1	496081	Coil with flying leads, IP 67, 32 mm	9.0	9.0	-10°C to +50°C	-	IP67	-	261
2.0/2.1	483510	Coil for DIN plug connection, 32 mm	-	9.0	-40°C to +50°C	-	IP65	-	248
2.0/2.1	483520	Coil with screw terminal, double frequency, 40 mm	-	9.0	-40°C to +50°C	-	IP 44 to 67	-	263
2.0/2.1	488553	Coil with screw terminal, double frequency, H class, 40 mm	-	9.0	-40°C to +50°C	-	IP 44 to 67	-	266
2.0/2.1	491514	Coil for DIN plug connection, 32 mm, UL	-	11.0	-40°C to +50°C	●	IP65	-	252
2.0/2.1	495875	Explosion proof electrical part "nc AC", 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	274
2.0/2.1	495870	Explosion proof electrical part "nc AC", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
2.0/2.1	496110	Explosion proof electrical part "nc AC", 32 mm	-	9.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3 / T4	272
2.0/2.1	492670	Explosion proof encapsulated electrical part "mb", 32 mm	9.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4	280
2.0/2.1	492070	Explosion proof encapsulated electrical part "mb", with water proof metal housing, 50 mm	8.0	9.0	-40°C to +65°C	-	IP67	II 2 GD Ex mb II T4 / T5	281
2.0/2.1	493640	Flame proof encapsulated electrical part "db mb", double frequency	8.0	8.0	-40°C to +75°C	-	IP65	II 2 GD Ex db mb IIC T4	288
2.0/2.1	495905	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	285
2.0/2.1	494040	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +90°C	-	IP67	II 2 GD Ex eb IIC T3 / T4	289
2.0/2.1	483371	Explosion proof increased safety electrical part "eb", 50 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex eb IIC T4	289
2.0/2.1	492190	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	9.0	11.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T3 / T4	292
2.0/2.1	HZ10	Explosion proof encapsulated electrical part "mb", double frequency	8.0	8.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4 / T5	282

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Coil Group	Coil Reference	Designation	Power DC Pn ( W )	Power AC Pn ( W )	Ambient Temperature	UL	Degree of Protection	ATEX or NEMA 4X Protection (Gas)	Page
2.0/2.2	486265	Coil with screw terminal,high temperature-high power, 40 mm	14.0	14.0	-40°C to +50°C	-	IP 44 to 67	-	265
2.0/2.2	492425	Coil for DIN plug connection, high temperature, 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	-	249
2.0/2.2	481044	Coil with screw terminal High power, 40 mm	-	14.0	-40°C to +50°C	-	IP 44 to 67	-	264
2.0/2.2	495880	Explosion proof electrical part "nc AC", 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T3	275
2.0/2.2	496082	Coil with flying leads,IP 67, 32 mm, UL	16.0	13.0-14.0	-40°C to +120°C	●	IP67	-	262
2.0/2.2	496155	Explosion proof increased safety electrical part "nc AC", 50 mm	14.0	14.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	277
2.0/2.2	HZ11	Explosion proof encapsulated electrical part "mb", double frequency	14.0	14.0	-40°C to +50°C	-	IP65	II 2 GD Ex mb II T4 / T5	283
2.2	483816	Coil for DIN plug connection for Jet Valves, 32 mm	14.0	14.0	-40°C to +50°C	-	IP65	-	253
3.0	482730	Coil for DIN plug connection, reduced power, 32 mm	7.0	6.0	-40°C to +50°C	-	IP65	-	250
4.0	485400	Coil with screw terminal,bistable, for impulse applications, 40 mm	13.0	-	-40°C to +50°C	-	IP44	-	267
4.0	484990	Coil with screw terminal,bistable, for impulse applications, 40 mm	-	11.0	-40°C to +50°C	-	IP44	-	267
4.0	495915	Explosion proof increased safety electrical part "nc AC", 50 mm	13.0	11.0	-40°C to +65°C	-	IP67	II 3 GD Ex nc AC IIC T3	276
6.0	482740	Coil for DIN plug connection, low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	-	251
6.0	496125	Explosion proof electrical part "nc AC", low power, 32 mm	1.6	-	-40°C to +50°C	-	IP65	II 3 GD Ex nc AC IIC T5 / T6	273
6.0	495900	Flame proof encapsulated electrical part "db mb", low power, 37 mm	2.0	2.5	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	284
7.0	483580.01	Explosion proof intrinsically safe electrical part "ia", 32 mm	3.0	-	-40°C to +55°C	-	IP65	II 1 GD Ex ia IIC T6	293
7.0	488650.01	Explosion proof intrinsically safe electrical part "ia", 50 mm	0.3 to 3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	298
7.0	490885	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div.I, Gr. A, B, C, D	298
8.0	495910	Explosion proof intrinsically safe electrical part "ia", "booster", 37 mm	0.3 to 1.2.0	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	294
9.0	492210	Explosion proof increased safety and encapsulated electrical part "eb", " Booster", 50 mm	1.0 to 1.8	-	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T5 / T6	291
9.0	496565	Explosion proof intrinsically safe electrical part "ia", " Booster", 37 mm	0.77 to 2.58	-	-40°C to +80°C	-	IP67	II 1 GD Ex ia IIC T6 / T5 / T4	295
9.0	492965.01	Explosion proof intrinsically safe electrical part "ia", " Booster", 50 mm	0.3 to 2.3	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	296
10.1	496895	Coil for DIN plug connection for oil and gas, 37 mm	8.0	8.0	-40°C to +50°C	-	IP65	-	260
10.1	496560	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	286
10.1	496800	Flame proof encapsulated electrical part "db mb", 37 mm	8.0	8.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4	287
10.1	492310	Explosion proof increased safety and encapsulated electrical part "eb", 50 mm	6.0	6.0	-40°C to +75°C	-	IP66	II 2 GD Ex eb mb II T4 / T5	290
10.2	496555	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	286
10.2	496700	Flame proof encapsulated electrical part "db mb", 37 mm	6.0	6.0	-40°C to +65°C	-	IP67	II 2 GD Ex db mb IIC T4 / T5 / T6	287
10.3	497105	Flame proof electrical part "d"	8.0	8.0	-50°C to +80°C	-	IP66	Ex db IIC T4 / T5 / T6	278
12.0	482870.01	Explosion proof intrinsically safe electrical part "ia", 50 mm	3.0	-	-40°C to +65°C	-	IP66	II 1 GD Ex ia IIC T6	297
12.0	492335	Explosion proof intrinsically safe electrical part, "NEMA", 50 mm	3.0	-	-40°C to +60°C	-	NEMA 4 - 4X	Cl. I, Div.I, Gr. A, B, C, D	297

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**WARNING - USER RESPONSIBILITY**

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# Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value.

Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker.

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## Aerospace

### Key Markets

Aftermarket services  
Commercial transports  
Engines  
General & business aviation  
Helicopters  
Launch vehicles  
Military aircraft  
Missiles  
Power generation  
Regional transports  
Unmanned aerial vehicles

### Key Products

Control systems & actuation products  
Engine systems & components  
Fluid conveyance systems & components  
Fluid metering, delivery & atomization devices  
Fuel systems & components  
Fuel tank inerting systems  
Hydraulic systems & components  
Thermal management  
Wheels & brakes



## Climate Control

### Key Markets

Agriculture  
Air conditioning  
Construction Machinery  
Food & beverage  
Industrial machinery  
Life sciences  
Oil & gas  
Precision cooling  
Process  
Refrigeration  
Transportation

### Key Products

Accumulators  
Advanced actuators  
CO<sub>2</sub> controls  
Electronic controllers  
Filter driers  
Hand shut-off valves  
Heat exchangers  
Hose & fittings  
Pressure regulating valves  
Refrigerant distributors  
Safety relief valves  
Smart pumps  
Solenoid valves  
Thermostatic expansion valves



## Hydraulics

### Key Markets

Aerial lift  
Agriculture  
Alternative energy  
Construction machinery  
Forestry  
Industrial machinery  
Machine tools  
Marine  
Material handling  
Mining  
Oil & gas  
Power generation  
Refuse vehicles  
Renewable energy  
Truck hydraulics  
Turf equipment

### Key Products

Accumulators  
Cartridge valves  
Electrohydraulic actuators  
Human machine interfaces  
Hybrid drives  
Hydraulic cylinders  
Hydraulic motors & pumps  
Hydraulic systems  
Hydraulic valves & controls  
Hydrostatic steering  
Integrated hydraulic circuits  
Power take-offs  
Power units  
Rotary actuators  
Sensors



## Pneumatics

### Key Markets

Aerospace  
Conveyor & material handling  
Factory automation  
Life science & medical  
Machine tools  
Packaging machinery  
Transportation & automotive

### Key Products

Air preparation  
Brass fittings & valves  
Manifolds  
Pneumatic accessories  
Pneumatic actuators & grippers  
Pneumatic valves & controls  
Quick disconnects  
Rotary actuators  
Rubber & thermoplastic hose & couplings  
Structural extrusions  
Thermoplastic tubing & fittings  
Vacuum generators, cups & sensors





## Electromechanical

### Key Markets

Aerospace  
 Factory automation  
 Life science & medical  
 Machine tools  
 Packaging machinery  
 Paper machinery  
 Plastics machinery & converting  
 Primary metals  
 Semiconductor & electronics  
 Textile  
 Wire & cable

### Key Products

AC/DC drives & systems  
 Electric actuators, gantry robots & slides  
 Electrohydraulic actuation systems  
 Electromechanical actuation systems  
 Human machine interface  
 Linear motors  
 Stepper motors, servo motors, drives & controls  
 Structural extrusions



## Filtration

### Key Markets

Aerospace  
 Food & beverage  
 Industrial plant & equipment  
 Life sciences  
 Marine  
 Mobile equipment  
 Oil & gas  
 Power generation & renewable energy  
 Process  
 Transportation  
 Water Purification

### Key Products

Analytical gas generators  
 Compressed air filters & dryers  
 Engine air, coolant, fuel & oil filtration systems  
 Fluid condition monitoring systems  
 Hydraulic & lubrication filters  
 Hydrogen, nitrogen & zero air generators  
 Instrumentation filters  
 Membrane & fiber filters  
 Microfiltration  
 Sterile air filtration  
 Water desalination & purification filters & systems



## Fluid & Gas Handling

### Key Markets

Aerial lift  
 Agriculture  
 Bulk chemical handling  
 Construction machinery  
 Food & beverage  
 Fuel & gas delivery  
 Industrial machinery  
 Life sciences  
 Marine  
 Mining  
 Mobile  
 Oil & gas  
 Renewable energy  
 Transportation

### Key Products

Check valves  
 Connectors for low pressure fluid conveyance  
 Deep sea umbilicals  
 Diagnostic equipment  
 Hose couplings  
 Industrial hose  
 Mooring systems & power cables  
 PTFE hose & tubing  
 Quick couplings  
 Rubber & thermoplastic hose  
 Tube fittings & adapters  
 Tubing & plastic fittings



## Process Control

### Key Markets

Alternative fuels  
 Biopharmaceuticals  
 Chemical & refining  
 Food & beverage  
 Marine & shipbuilding  
 Medical & dental  
 Microelectronics  
 Nuclear Power  
 Offshore oil exploration  
 Oil & gas  
 Pharmaceuticals  
 Power generation  
 Pulp & paper  
 Steel  
 Water/wastewater

### Key Products

Analytical Instruments  
 Analytical sample conditioning products & systems  
 Chemical injection fittings & valves  
 Fluoropolymer chemical delivery fittings, valves & pumps  
 High purity gas delivery fittings, valves, regulators & digital flow controllers  
 Industrial mass flow meters/controllers  
 Permanent no-weld tube fittings  
 Precision industrial regulators & flow controllers  
 Process control double block & bleeds  
 Process control fittings, valves, regulators & manifold valves



## Sealing & Shielding

### Key Markets

Aerospace  
 Chemical processing  
 Consumer  
 Fluid power  
 General industrial  
 Information technology  
 Life sciences  
 Microelectronics  
 Military  
 Oil & gas  
 Power generation  
 Renewable energy  
 Telecommunications  
 Transportation

### Key Products

Dynamic seals  
 Elastomeric o-rings  
 Electro-medical instrument design & assembly  
 EMI shielding  
 Extruded & precision-cut, fabricated elastomeric seals  
 High temperature metal seals  
 Homogeneous & inserted elastomeric shapes  
 Medical device fabrication & assembly  
 Metal & plastic retained composite seals  
 Shielded optical windows  
 Silicone tubing & extrusions  
 Thermal management  
 Vibration dampening

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2014-Feb.07

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