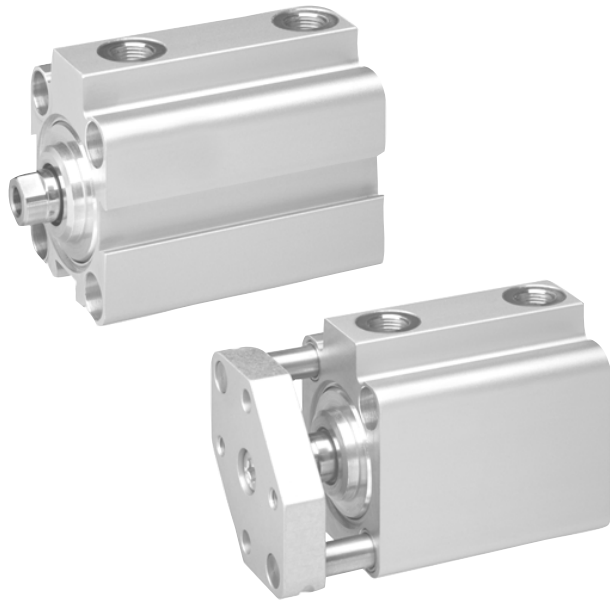


Piston rod cylinders ▶ Short-stroke and compact cylinders


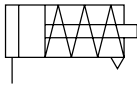

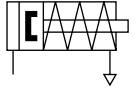







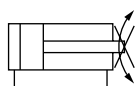
Series KHZ

Brochure



Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ






		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread 	5
		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread 	10
		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/4 ▶ double-acting ▶ Cushioning: elastic 	13
		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread 	17
		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating 	21
		<p>Short-stroke cylinder, Series KHZ</p> <ul style="list-style-type: none"> ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating 	26

Accessories

Accessories overview












Accessories overview	30
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Piston rod mountings

	<p>Nut for piston rod, Series MR9</p>	31
	<p>Rod clevis, Series AP2</p> <ul style="list-style-type: none"> ▶ galvanized steel 	31
	<p>Ball eye rod end with flange, Series AP6</p> <ul style="list-style-type: none"> ▶ galvanized steel 	32
	<p>Flexible spherical coupling, Series PM5</p>	32
	<p>Male threaded rods</p> <ul style="list-style-type: none"> ▶ for Series KHZ and SSI with internal thread 	33








Piston rod cylinders ▶ Short-stroke and compact cylinders
Series KHZ

Sensors and sensor mountings, accessories

	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 2-pin, open cable ends, 3-pin</p>	<p>34</p>
	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 3-pin ▶ ATEX certified</p>	<p>36</p>
	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw</p>	<p>37</p>
	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw ▶ ATEX certified</p>	<p>39</p>
	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin</p>	<p>40</p>
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	<p>Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw ▶ ATEX certified</p>	<p>43</p>
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Piston rod cylinders ▶ Short-stroke and compact cylinders

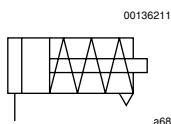
Series KHZ

	Sensor mounting, Series CB1 ▶ for Series SN3 ▶ to mount on cylinder PRA, KPZ, GPC, CCI, KHZ	49
	Connecting cable, Series CN2 ▶ Socket, M8, 3-pin, straight ▶ open cable ends, 3-pin	50
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	Silencers, Series SI1 ▶ Sintered bronze	57

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread



Compressed air connection

Internal thread

Ambient temperature min./max.

-25°C / +80°C

Medium temperature min./max.

-25°C / +80°C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel

Piston

Nitrile rubber

End cover

Aluminum

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø	[mm]	8	12	16	20	25
Retracting piston force	[N]	2.8	6.8	8	6.5	15.5
Extracting piston force	[N]	32	71	127	198	309
Working pressure min./max.	[bar]	2 - 10	1.7 - 10	1.5 - 10	1.5 - 10	1.5 - 10
Material, front cover		Brass	Brass	Brass	Brass	Brass

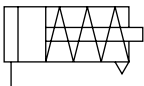
Piston Ø	[mm]	32	40	50	63	80
Retracting piston force	[N]	18.5	26	39	48	54
Extracting piston force	[N]	507	792	1237	1964	3167
Working pressure min./max.	[bar]	1.3 - 10	1.3 - 10	1 - 10	1 - 10	1 - 10
Material, front cover		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum

Piston Ø	[mm]	100				
Retracting piston force	[N]	95				
Extracting piston force	[N]	4948				
Working pressure min./max.	[bar]	1 - 10				
Material, front cover		Aluminum				


Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread

	Piston Ø	8	12	16	20	25
	Piston rod thread					
	Ports	M5	M5	M5 M5	M5 M5	M5 G 1/8
	Stroke 4	0822406001	0822406020	0822406310	0822406320	-
	5	-	-	-	-	0822406330
	10	-	0822406021	0822406311	0822406321	0822406331
	25	-	-	0822406312	0822406322	0822406332
	Piston Ø	32	40	50	63	80
	Piston rod thread	M6	M6	M8	M8	M10
	Ports	G 1/8	G 1/8	G 1/8	G 1/8	G 1/4
	Stroke 4	-	-	-	-	-
	5	0822406340	0822406350	-	-	-
	10	0822406341	0822406351	0822406361	0822406371	-
	25	0822406342	0822406352	0822406362	0822406372	R402005783
	Piston Ø	100				
	Piston rod thread	M12				
	Ports	G 1/4				
	Stroke 4	-				
	5	-				
10	-					
25	R402005840					

Other versions can be ordered from AVENTICS sales offices.
For 0822406310 piston material: Polyurethane

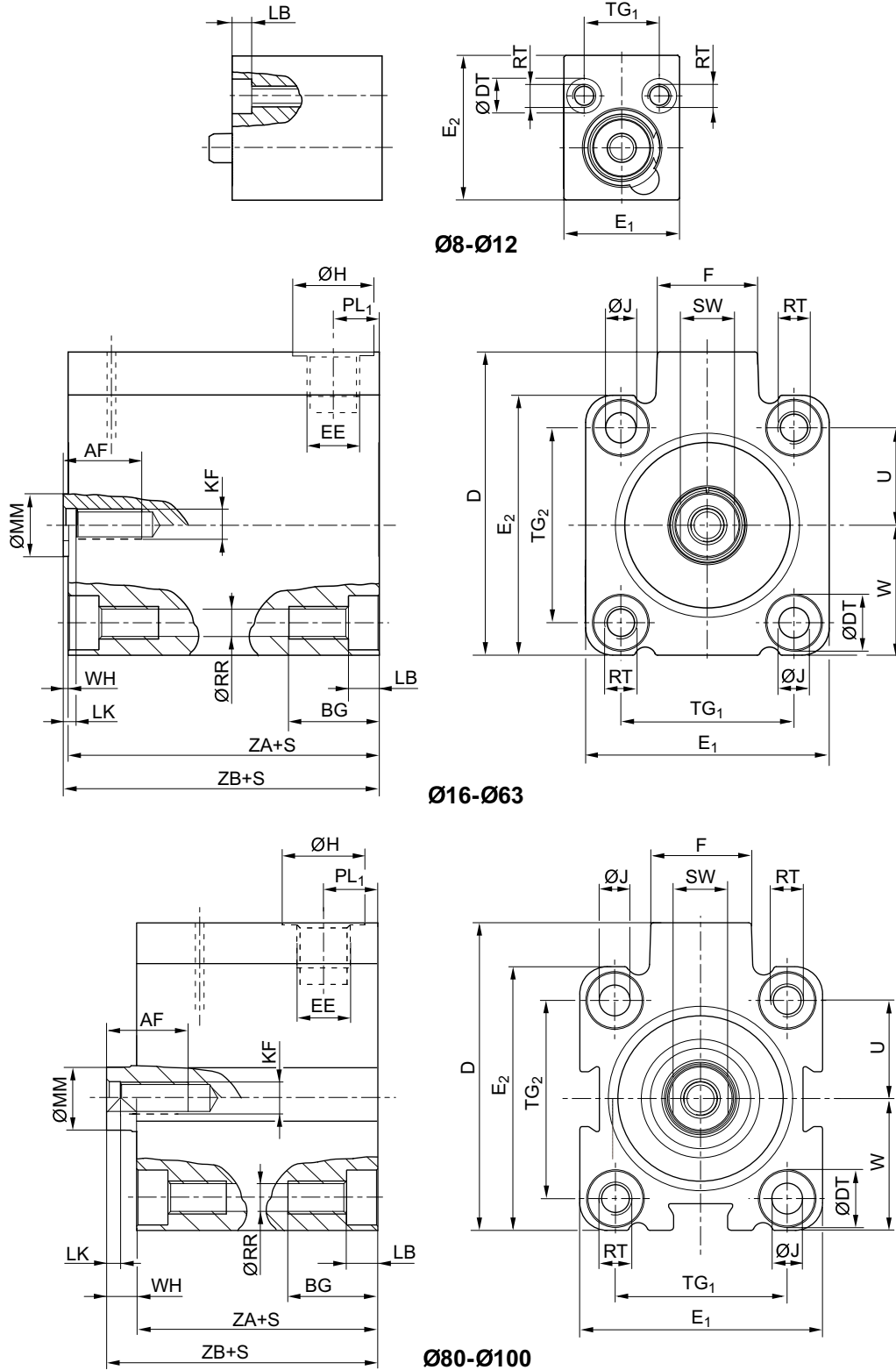
Weight [kg]	Piston Ø	8	12	16	20	25
	Stroke 4	0.017	0.024	0.057	0.061	-
	5	-	-	-	-	0.11
	10	-	0.034	0.075	0.09	0.132
	25	-	-	0.114	0.147	0.218
	Piston Ø	32	40	50	63	80
	Stroke 4	-	-	-	-	-
	5	0.135	0.225	-	-	-
	10	0.163	0.21	0.268	0.458	-
	25	0.296	0.378	0.492	0.75	1.29
	Piston Ø	100				
	Stroke 4	-				
	5	-				
	10	-				
	25	2.3				

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread

Dimensions



S = stroke

00106557

Piston rod cylinders ▶ Short-stroke and compact cylinders
Short-stroke cylinder, Series KHZ
▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread

Piston Ø	S	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ H14	KF	LB +0,4
8	4	-	8	-	6	18	20	M5	-	8	-	-	3.4
12	4	-	8	-	6	20	25	M5	-	8	-	-	3.4
12	10	-	9	-	6	20	25	M5	-	8	-	-	3.4
16	4	10	12.4	33	6	28	28	M5	11.5	8	3.55	M5	3.4
16	10	10	12.4	33	6	28	28	M5	11.5	8	3.55	M5	3.4
16	25	10	17.5	33	6	28	28	M5	11.5	8	3.55	M5	8.5
20	4	9	13.6	37	7.5	32	32	M5	11	8	4.55	M5	4.6
20	10	10	13.6	37	7.5	32	32	M5	11	8	4.55	M5	4.6
20	25	10	13.6	37	7.5	32	32	M5	11	8	4.55	M5	4.6
25	5	10	13.6	47.5	8	37	39	G1/8	17.5	15	4.55	M5	4.6
25	10	10	13.6	47.5	8	37	39	G1/8	17.5	15	4.55	M5	4.6
25	25	10	13.6	47.5	8	37	39	G1/8	17.5	15	4.55	M5	4.6
32	5	14.5	16.7	56	10	45	48	G1/8	18.5	15	5.5	M6	5.7
32	10	14.5	16.7	56	10	45	48	G1/8	18.5	15	5.5	M6	5.7
32	25	14.5	16.7	56	10	45	48	G1/8	18.5	15	5.5	M6	5.7
40	5	13	16.7	62.5	10	54.5	54.5	G1/8	18.5	15	5.5	M6	5.7
40	10	14.5	16.7	62.5	10	54.5	54.5	G1/8	18.5	15	5.5	M6	5.7
40	25	14.5	16.7	62.5	10	54.5	54.5	G1/8	18.5	15	5.5	M6	5.7
50	10	15.5	19.8	72	11	64	64	G1/8	18	15	7.3	M8	6.8
50	25	15.5	19.8	72	11	64	64	G1/8	18	15	7.3	M8	6.8
63	10	18	25	88	15	80	80	G1/8	23	15	9.2	M8	9
63	25	18	25	88	15	80	80	G1/8	23	15	9.2	M8	9
80	25	18	25	110	15	100	100	G1/4	27	19	9.2	M10	9
100	25	20	30	132	17.5	124	124	G1/4	28	19	11	M12	11

Piston Ø	LK +0,5	ØMM f8	PL1	ØRR	RT	SW -0,3	TG1	TG2	U	W	WH	ZA ±0,2
8	-	4	5	3.3	M4	-	11 ±0,2	-	8	6,5 ±0,2	1	12
12	-	5	5	3.3	M4	-	13 ±0,2	-	9	9 ±0,2	1	12
12	-	5	5	3.3	M4	-	13 ±0,2	-	9	9 ±0,2	4	16
16	2	8	5	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2	1	20
16	2	8	5	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2	1	22
16	2	8	5	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2	1	28
20	2	10	5	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2	1	16
20	2	10	5	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2	1	22
20	2	10	5	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2	1	28
25	2	10	8.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2	1	21
25	2	10	8.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2	1	22
25	2	10	8.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2	1	30
32	2.5	12	8.5	5.05	M6	10	32 ±0,25	36 ±0,25	18	24 ±0,2	1	21
32	2.5	12	8.5	5.05	M6	10	32 ±0,25	36 ±0,25	18	24 ±0,2	1	22
32	2.5	12	8.5	5.05	M6	10	32 ±0,25	36 ±0,25	18	24 ±0,2	1	32.5
40	2.5	12	8.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2	1	21
40	2.5	12	8.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2	1	21
40	2.5	12	8.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2	1	32.5
50	3.5	16	8.5	6.8	M8	13	50 ±0,25	50 ±0,25	25	32 ±0,2	1	20
50	3.5	16	8.5	6.8	M8	13	50 ±0,25	50 ±0,25	25	32 ±0,2	1	32.5
63	3.5	16	8.5	8.5	M10	13	62 ±0,25	62 ±0,25	31	40 ±0,2	1	25
63	3.5	16	8.5	8.5	M10	13	62 ±0,25	62 ±0,25	31	40 ±0,2	2	35.5
80	4	20	12	8.5	M10	17	82 ±0,3	82 ±0,3	41	50 ±0,3	1	42
100	4	25	12	10.2	M12	22	103 ±0,3	103 ±0,3	51.5	62 ±0,3	1	49.5

Piston Ø	ZB ±0,8											
8	13											
1) Min.												

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ Cushioning: elastic ▶ Piston rod: Internal thread

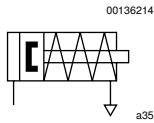
Piston Ø	ZB ±0,8												
12	13												
12	20												
16	21												
16	23												
16	29												
20	17												
20	23												
20	29												
25	22												
25	23												
25	31												
32	22												
32	23												
32	33.5												
40	22												
40	22												
40	33.5												
50	21												
50	33.5												
63	26												
63	37.5												
80	43												
100	50.5												

1) Min.

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ with magnetic piston ▶ Cushioning: elastic

▶ Piston rod: Internal thread



Compressed air connection

Internal thread

Ambient temperature min./max.

-25 °C / +80 °C

Medium temperature min./max.

-25 °C / +80 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel

Piston

Nitrile rubber

End cover

Aluminum

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø	[mm]	12	16	20	25	32
Retracting piston force	[N]	6.8	8	6.5	15.5	18.5
Extracting piston force	[N]	71	127	198	309	507
Working pressure min./max.	[bar]	1.7 - 10	1.5 - 10	1.5 - 10	1.5 - 10	1.3 - 10
Material, front cover		Brass	Brass	Brass	Brass	Aluminum

Piston Ø	[mm]	40	50	63	80	100
Retracting piston force	[N]	26	39	48	63.5	95.5
Extracting piston force	[N]	792	1237	1964	3267	4948
Working pressure min./max.	[bar]	1.3 - 10	1 - 10	1 - 10	1 - 10	1 - 10
Material, front cover		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum


	Piston Ø	12	16	20	25	32
	Piston rod thread	M3	M5	M5	M5	M6
	Ports	M5	M5	M5	G 1/8	G 1/8
	Stroke 4	0822406400	0822406410	0822406420	-	-
	5	-	-	-	0822406430	0822406440
	10	0822406401	0822406411	0822406421	0822406431	0822406441
	25	-	0822406412	0822406422	0822406432	0822406442
	Piston Ø	40	50	63	80	100
	Piston rod thread	M6	M8	M8	M10	M12
	Ports	G 1/8	G 1/8	G 1/8	G 1/4	G 1/4
	Stroke 4	-	-	-	-	-
5	0822406450	-	-	-	-	
10	0822406451	0822406461	0822406471	0822406481	0822406491	
25	0822406452	0822406462	0822406472	0822406482	0822406492	

Other versions can be ordered from AVENTICS sales offices.

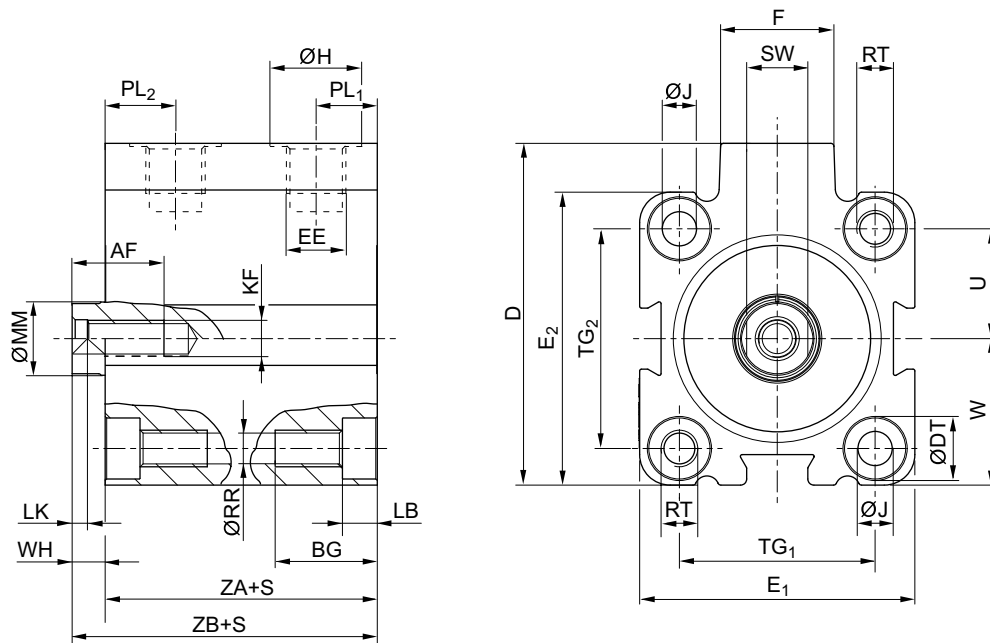
Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

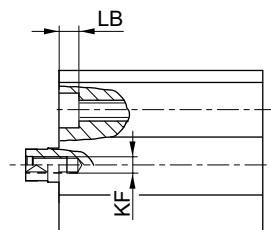
- ▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ with magnetic piston ▶ Cushioning: elastic
- ▶ Piston rod: Internal thread

Weight [kg]	Piston Ø	12	16	20	25	32
	Stroke 4	0.051	0.075	0.095	-	-
	5	-	-	-	0.175	0.226
	10	0.051	0.075	0.095	0.175	0.226
	25	-	0.085	0.105	0.175	0.226
	Piston Ø	40	50	63	80	100
	Stroke 4	-	-	-	-	-
	5	0.318	-	-	-	-
	10	0.318	0.49	0.732	1.29	2.3
	25	0.318	0.49	0.732	1.29	2.3

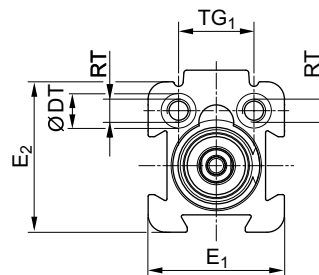
Dimensions



Ø16-Ø100



Ø12



S = stroke

00106559

Piston Ø	S	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ H14	KF	LB +0,4
12	4 - 10	8	12.4	28	6	23.5	26	M 5	11	8	-	M 3	3.4
16	4 - 10	10	12.4	33	6	28	28	M 5	11.5	8	3.55	M 5	3.4

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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Piston rod cylinders ▶ Short-stroke and compact cylinders
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ Single-acting, retracted without pressure ▶ with magnetic piston ▶ Cushioning: elastic

▶ Piston rod: Internal thread

Piston Ø	S	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ H14	KF	LB +0,4
16	25	10	17.5	33	6	28	28	M 5	11.5	8	3.55	M 5	8.5
20	4 - 10	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M 5	4.6
20	25	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M 5	4.6
25	5 - 25	10	13.6	47.5	8	37	39	G 1/8	17.5	15	4.55	M 5	4.6
32	5 - 25	15	16.7	56	10	45	48	G 1/8	18.5	15	5.5	M 6	5.7
40	5 - 25	15	16.7	62.5	10	54.5	54.5	G 1/8	18.5	15	5.5	M 6	5.7
50	10 - 25	18	19.8	73	11	66	66	G 1/8	18	15	7.3	M 8	6.8
63	10 - 25	18	25	88	15	80	80	G 1/8	23	15	9.2	M 8	9
80	10 - 25	18	25	110	15	100	100	G 1/4	27	19	9.2	M 10	9
100	10 - 25	20	30	132	17.5	124	124	G 1/4	28	19	11	M 12	11

Piston Ø	LK +0,5	ØMM f8	PL1	PL2	ØRR	RT	SW -0,3	TG1	TG2 ±0,2	U	W	WH
12	2	6	6	10.5	3.3	M 4	5	13 ±0,2	-	9.5	11,5 ±0,2	4.5
16	2	8	6.5	12.5	3.3	M 4	7	20 ±0,2	20 ±0,2	10	14 ±0,2	3
16	2	8	6.5	12.5	3.3	M 4	7	20 ±0,2	20 ±0,2	10	14 ±0,2	4
20	2	10	6.5	12	4.2	M 5	8	22 ±0,2	22 ±0,2	11	16 ±0,2	4.5
20	2	10	6.5	12	4.2	M 5	8	22 ±0,2	22 ±0,2	11	16 ±0,2	4.5
25	2	10	9.5	11.5	4.2	M 5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2	5
32	2.5	12	10	11.5	5.05	M 6	10	32 ±0,25	36 ±0,25	18	24 ±0,2	5.5
40	2.5	12	10	13.5	5.05	M 6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2	7
50	3.5	16	10	14	6.8	M 8	13	50 ±0,25	50 ±0,25	25	33 ±0,2	7.5
63	3.5	16	11.5	14	8.5	M 10	13	62 ±0,25	62 ±0,25	31	40 ±0,2	6.5
80	4	20	12	18	8.5	M 10	17	82 ±0,3	82 ±0,3	41	50 ±0,3	8
100	4	25	12	20.5	10.2	M 12	22	103 ±0,3	103 ±0,3	51.5	62 ±0,3	10

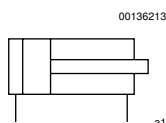
Piston Ø	ZA ±0,2	ZB ±0,8										
12	30.5	35										
16	32	35										
16	38	42										
20	32	36.5										
20	38	42.5										
25	39	44										
32	39.5	45										
40	39.5	46.5										
50	39.5	47										
63	42	48.5										
80	46	54										
100	56	66										

1) Min.

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ Cushioning: elastic



Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Piston	Nitrile rubber
End cover	Aluminum
Scraper	Polyurethane

Technical Remarks

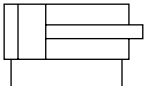
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø		[mm]	12	16	20	25	32
Retracting piston force		[N]	53	95	148	260	435
Extracting piston force		[N]	71	127	198	309	507
Impact energy		[J]	0.03	0.06	0.08	0.1	0.16
Weight	0 mm stroke	[kg]	0.036	0.063	0.082	0.164	0.195
	+10 mm stroke	[kg]	0.013	0.016	0.021	0.03	0.042
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0.6 - 10
Material, front cover			Brass	Brass	Brass	Brass	Aluminum

Piston Ø		[mm]	40	50	63	80	100
Retracting piston force		[N]	720	1110	1837	2857	4639
Extracting piston force		[N]	792	1237	1964	3167	4948
Impact energy		[J]	0.24	0.32	0.38	0.38	0.5
Weight	0 mm stroke	[kg]	0.285	0.388	0.636	1.222	2.385
	+10 mm stroke	[kg]	0.052	0.074	0.096	0.149	0.218
Working pressure min./max.		[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Material, front cover			Aluminum	Aluminum	Aluminum	Aluminum	Aluminum

Piston rod cylinders ▶ Short-stroke and compact cylinders
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ Cushioning: elastic

	Piston Ø Piston rod thread Ports Piston rod thread - type	12	16	20	25	32	
		M5 external thread	M5 Internal thread	M5 Internal thread	M5 G 1/8 Internal thread	M6 G 1/8 Internal thread	
	Stroke 5	0822010500	0822010510	0822010520	0822010530	0822010540	
	10	0822010501	0822010511	0822010521	0822010531	0822010541	
	15	0822010502	0822010512	0822010522	0822010532	0822010542	
	20	0822010503	0822010513	0822010523	0822010533	0822010543	
	25	0822010504	0822010514	0822010524	0822010534	0822010544	
	30	0822010505	0822010515	0822010525	0822010535	0822010545	
	40	0822010506	0822010516	0822010526	0822010536	0822010546	
	50	-	-	0822010527	0822010537	0822010547	
		Piston Ø Piston rod thread Ports Piston rod thread - type	40 M6 G 1/8 Internal thread	50 M8 G 1/8 Internal thread	63 M8 G 1/8 Internal thread	80 M10 G 1/4 Internal thread	100 M12 G 1/4 Internal thread
	Stroke 5	0822010550	-	0822010570	-	-	
	10	0822010551	0822010561	0822010571	R402005784	-	
	15	0822010552	0822010562	0822010572	-	-	
	20	0822010553	0822010563	0822010573	-	-	
	25	0822010554	0822010564	0822010574	R402005787	R402005833	
	30	0822010555	0822010565	0822010575	-	-	
40	0822010556	0822010566	0822010576	-	-		
50	0822010557	0822010567	0822010577	R402005790	R402005836		

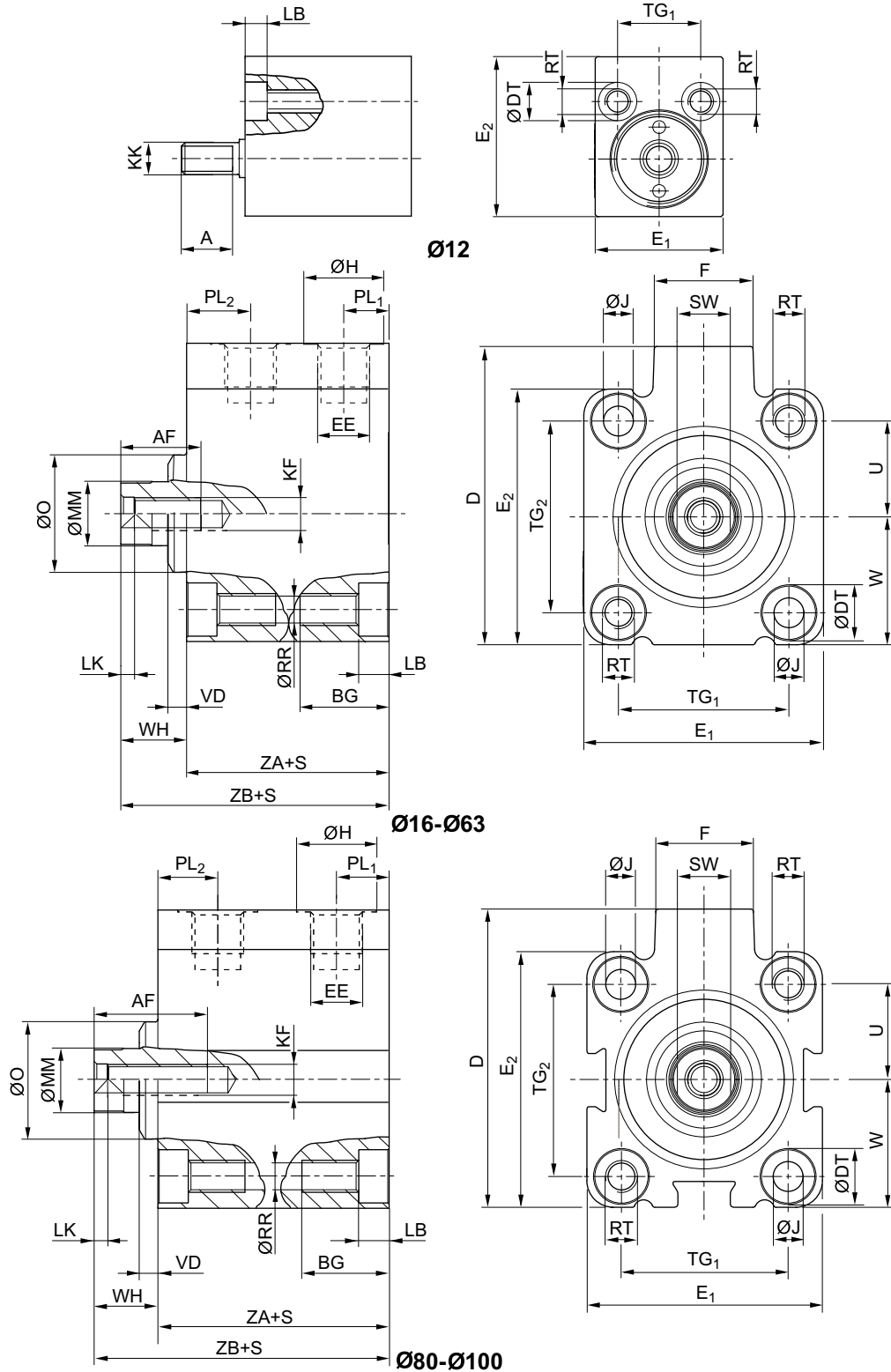
Other versions can be ordered from AVENTICS sales offices.

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ Cushioning: elastic

Dimensions



S = stroke

00106561

Piston rod cylinders ▶ Short-stroke and compact cylinders
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ Cushioning: elastic

Piston Ø	S	A	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ	KF
12	5 - 20	8	-	12.4	-	6	20	25	M 5	-	8	-	-
12	25 - 40	8	-	17.5	-	6	20	25	M 5	-	8	-	-
16	5 - 15	-	10	12.4	33	6	28	28	M 5	11.5	8	3.55	M5
16	20 - 40	-	10	17.5	33	6	28	28	M 5	11.5	8	3.55	M5
16	20 - 40	-	10	17.5	33	6	28	28	M 5	11.5	8	3.55	M 5
20	5 - 50	-	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M5
25	5 - 50	-	10	13.6	47.5	8	37	39	G 1/8	17.5	15	4.55	M5
32	5 - 50	-	15	16.7	56	10	45	48	G 1/8	18.5	15	5.5	M6
40	5 - 50	-	15	16.7	62.5	10	54.5	54.5	G 1/8	18.5	15	5.5	M6
50	10 - 50	-	18	19.8	72	11	64	64	G 1/8	18	15	7.3	M8
63	5 - 50	-	18	25	88	15	80	80	G 1/8	23	15	9.2	M8
80	10 - 50	-	18	25	110	15	100	100	G 1/4	27	19	9.2	M10
100	25 - 50	-	20	30	132	17.5	124	124	G 1/4	28	19	11	M12

Piston Ø	KK	LB +0,4	LK +0,5	ØMM f8	ØO	PL1	PL2	ØRR	RT	SW -0,3	TG1	TG2
12	M 5	3.4	-	6	-	6	9.5	3.3	M4	-	13 ±0,2	-
12	M 5	8.5	-	6	-	6	9.5	3.3	M4	-	13 ±0,2	-
16	-	3.4	2	8	-	6	11.3	3.3	M4	7	20 ±0,2	20 ±0,2
16	-	8.5	2	8	-	6	11.3	3.3	M4	7	20 ±0,2	20 ±0,2
16	-	8.5	2	8	-	6	11.3	3.3	M4	7	20 ±0,2	20 ±0,2
20	-	4.6	2	10	-	5	8	4.2	M5	8	22 ±0,2	22 ±0,2
25	-	4.6	2	10	20	9	11	4.2	M5	8	26 ±0,25	28 ±0,25
32	-	5.7	2.5	12	22	8.5	12	5.05	M6	10	32 ±0,25	36 ±0,25
40	-	5.7	2.5	12	30	9	11	5.05	M6	10	40 ±0,25	40 ±0,25
50	-	6.8	3.5	16	35	8.5	11	6.8	M8	13	50 ±0,25	50 ±0,25
63	-	9	3.5	16	35	8.5	12.5	8.5	M10	13	62 ±0,25	62 ±0,25
80	-	9	4	20	46	13	16	8.8	M10	17	82 ±0,3	82 ±0,3
100	-	11	4	25	56	15.5	15.5	10.2	M12	22	103 ±0,3	103 ±0,3

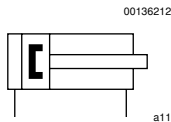
Piston Ø	U	W	VD -1	WH	ZA ±0,2	ZB ±0,8						
12	9	9 ±0,2	-	-	21	31						
12	9	9 ±0,2	-	-	21	31						
16	10	14 ±0,2	-	6	25	31						
16	10	14 ±0,2	-	6	25	31						
16	10	14 ±0,2	-	6	25	31						
20	11	16 ±0,2	-	9.5	24.5	34						
25	14	19,5 ±0,2	3.5	11.5	31	42.5						
32	18	24 ±0,2	3.5	12.5	33	45.5						
40	20	27,3 ±0,2	4.5	15	33	48						
50	25	32 ±0,2	6	17	32.5	49.5						
63	31	40 ±0,2	6.5	17	35.5	52.5						
80	41	50 ±0,3	8.5	18	42	60						
100	51.5	62 ±0,3	7	20	49.5	69.5						

1) Min.

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread



Compressed air connection

Internal thread

Ambient temperature min./max.

-25°C / +80°C

Medium temperature min./max.

-25°C / +80°C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel

Piston

Nitrile rubber

End cover

Aluminum

Scraper

Polyurethane

Technical Remarks

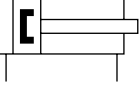
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø		[mm]	12	16	20	25	32
Retracting piston force		[N]	53	95	148	260	435
Extracting piston force		[N]	71	127	198	309	507
Impact energy		[J]	0.03	0.06	0.08	0.1	0.16
Weight	0 mm stroke	[kg]	0.05	0.065	0.092	0.178	0.195
	+10 mm stroke	[kg]	0.013	0.016	0.021	0.03	0.042
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0.6 - 10
Material, front cover			Brass	Brass	Brass	Brass	Aluminum

Piston Ø		[mm]	40	50	63	80	100
Retracting piston force		[N]	720	1110	1837	2857	4639
Extracting piston force		[N]	792	1237	1964	3167	4948
Impact energy		[J]	0.24	0.32	0.38	0.38	0.5
Weight	0 mm stroke	[kg]	0.285	0.388	0.636	1.222	2.385
	+10 mm stroke	[kg]	0.052	0.074	0.096	0.149	0.218
Working pressure min./max.		[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Material, front cover			Aluminum	Aluminum	Aluminum	Aluminum	Aluminum

Piston rod cylinders ▶ Short-stroke and compact cylinders
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

	Piston Ø Piston rod thread Ports	12	16	20	25	32
		M3 M5	M5 M5	M5 M5	M5 G 1/8	M6 G 1/8
	Stroke 5	0822010600	0822010610	0822010620	0822010630	0822010640
	10	0822010601	0822010611	0822010621	0822010631	0822010641
	15	0822010602	0822010612	0822010622	0822010632	0822010642
	20	0822010603	0822010613	0822010623	0822010633	0822010643
	25	0822010604	0822010614	0822010624	0822010634	0822010644
	30	0822010605	0822010615	0822010625	0822010635	0822010645
	40	0822010606	0822010616	0822010626	0822010636	0822010646
	50	-	-	0822010627	0822010637	0822010647
	80	-	-	-	-	0822010648
	100	-	-	-	-	0822010649
	Piston Ø Piston rod thread Ports	40 M6 G 1/8	50 M8 G 1/8	63 M8 G 1/8	80 M10 G 1/4	100 M12 G 1/4
	Stroke 5	0822010650	-	-	-	-
	10	0822010651	0822010661	0822010671	0822010681	0822010691
	15	0822010652	0822010662	0822010672	R402005794	-
	20	0822010653	0822010663	0822010673	-	-
	25	0822010654	0822010664	0822010674	0822010684	0822010694
	30	0822010655	0822010665	0822010675	-	-
	40	0822010656	0822010666	0822010676	R402005797	R402005844
	50	0822010657	0822010667	0822010677	0822010687	0822010697
	80	0822010658	0822010668	0822010678	0822010688	0822010698
	100	0822010659	0822010669	0822010679	0822010689	0822010699

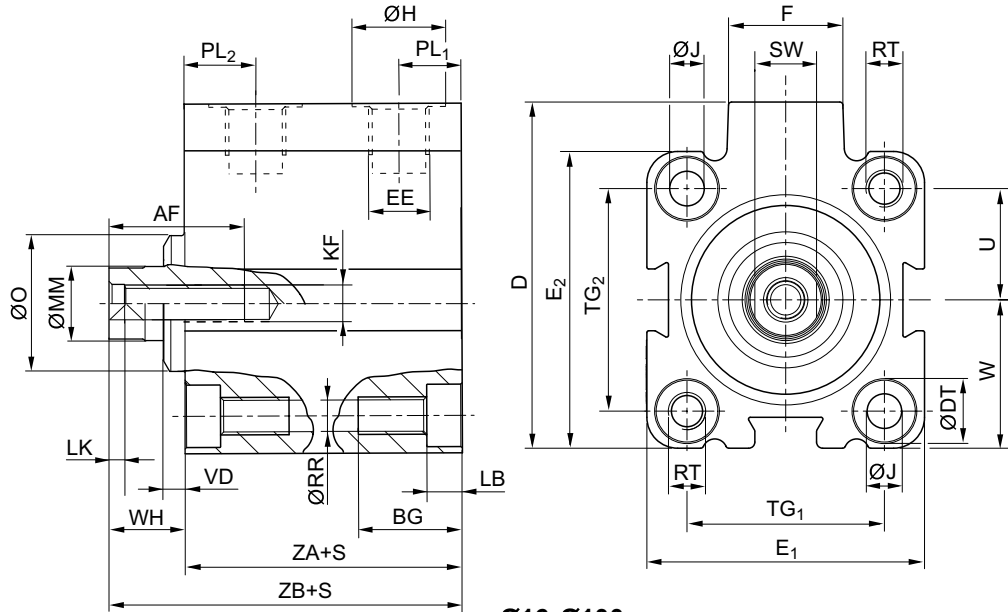
Other versions can be ordered from AVENTICS sales offices.

Piston rod cylinders ▶ Short-stroke and compact cylinders

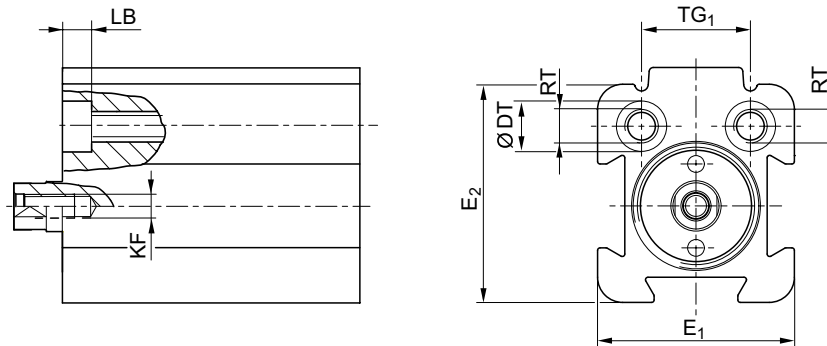
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

Dimensions



Ø16-Ø100



Ø12

00106563

S = stroke

Piston Ø	S	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ	KF	LB +0,4
12	5 - 10	8	12.4	28	6	23.5	26	M 5	11	8	3.3	M3	3.4
12	15 - 40	8	17.5	28	6	23.5	26	M 5	11	8	3.3	M3	8.5
16	5 - 10	10	12.4	33	6	28	28	M 5	11.5	8	3.55	M5	3.4
16	15 - 40	10	17.5	33	6	28	28	M 5	11.5	8	3.55	M5	8.5
20	5 - 10	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M5	4.6
20	15 - 50	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M5	4.6
25	5 - 50	10	13.6	47.5	8	37	39	G 1/8	17.5	15	4.55	M5	4.6
32	5 - 100	15	16.7	56	10	45	48	G 1/8	18.5	15	5.5	M6	5.7
40	5 - 100	15	16.7	62.5	10	54.5	54	G 1/8	18.5	15	5.5	M6	5.7
50	10 - 100	18	19.8	73	11	66	66	G 1/8	18	15	7.3	M8	6.8
63	10 - 100	18	25	88	15	80	80	G 1/8	23	15	9.2	M8	9
80	10 - 100	18	25	110	15	100	100	G 1/4	27	19	9.2	M10	9
100	10 - 100	20	30	132	17.5	124	124	G 1/4	28	19	11	M12	11

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Pneumatics catalog, online PDF, as of 2017-04-27, ©AVENTICS S.à r.l., subject to change

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

Piston Ø	LK +0,5	ØMM f8	ØO	PL1	PL2	ØRR	RT	SW -0,3	TG1	TG2	U	W
12	2	6	-	6	10.5	3.3	M4	5	13 ±0,2	-	9.5	11,5 ±0,2
12	2	6	-	6	10.5	3.3	M4	5	13 ±0,2	-	9.5	11,5 ±0,2
16	2	8	-	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2
16	2	8	-	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2
20	2	10	-	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2
20	2	10	-	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2
25	2	10	20	9.5	11.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2
32	2.5	12	22	8.5	15	5.05	M6	10	32 ±0,25	36 ±0,25	18	24 ±0,2
40	2.5	12	30	10	13.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2
50	3.5	16	35	10	14	6.8	M8	13	50 ±0,25	50 ±0,25	25	33 ±0,2
63	3.5	16	35	11.5	14	8.5	M10	13	62 ±0,25	62 ±0,25	31	40 ±0,2
80	4	20	46	12	15.5	8.5	M10	17	82 ±0,3	82 ±0,3	41	50 ±0,3
100	4	25	56	12	18.5	10.2	M12	22	103 ±0,3	103 ±0,3	51.5	62 ±0,3

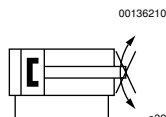
Piston Ø	VD -1	WH	ZA ±0,2	ZB ±0,8								
12	-	5.5	30.5	36								
12	-	5.5	30.5	36								
16	-	4.5	32	36.5								
16	-	4.5	38	42.5								
20	-	4.5	32	36.5								
20	-	4.5	38	42.5								
25	3.5	9.5	39	48.5								
32	3.5	11	39.5	50.5								
40	4.5	13.5	39.5	53								
50	6	13.5	39.5	53								
63	6.5	15.5	42	57.5								
80	8.5	18	46	64								
100	7	20	56	76								

1) Min.

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating



Compressed air connection

Internal thread

Ambient temperature min./max.

-25°C / +80°C

Medium temperature min./max.

-25°C / +80°C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel

Piston

Nitrile rubber

End cover

Aluminum

Scraper

Polyurethane

Technical Remarks

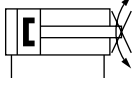
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø		[mm]	16	20	25	32	40
Retracting piston force		[N]	95	148	260	435	720
Extracting piston force		[N]	127	198	309	507	792
Impact energy		[J]	0.06	0.08	0.1	0.16	0.24
Weight	0 mm stroke	[kg]	0.084	0.092	0.178	0.195	0.285
	+10 mm stroke	[kg]	0.018	0.024	0.034	0.05	0.06
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	0.6 - 10	0.6 - 10
Material, front cover			Brass	Brass	Brass	Aluminum	Aluminum

Piston Ø		[mm]	50	63	80	100
Retracting piston force		[N]	1110	1766	2857	4639
Extracting piston force		[N]	1237	1964	3167	4948
Impact energy		[J]	0.32	0.38	0.38	0.5
Weight	0 mm stroke	[kg]	0.388	0.636	1.222	2.385
	+10 mm stroke	[kg]	0.086	0.114	0.167	0.242
Working pressure min./max.		[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Material, front cover			Aluminum	Aluminum	Aluminum	Aluminum

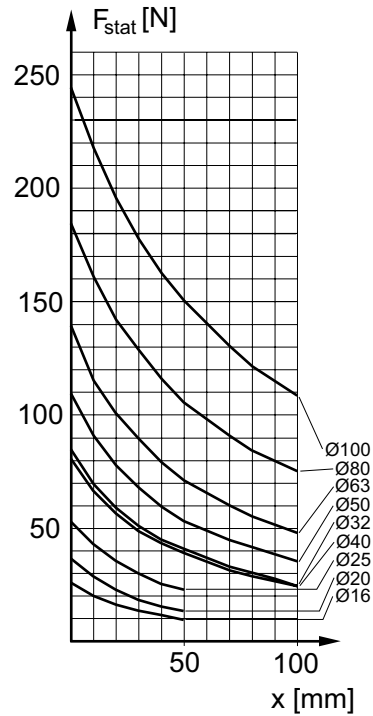
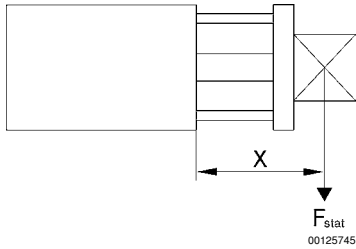
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

Piston Ø Ports	16	20	25	32	40	
	M5	M5	G 1/8	G 1/8	G 1/8	
	Stroke 10	0822010811	0822010821	0822010831	0822010841	0822010851
	15	0822010812	0822010822	0822010832	0822010842	0822010852
	20	0822010813	0822010823	0822010833	0822010843	0822010853
	25	0822010814	0822010824	0822010834	0822010844	0822010854
	30	0822010815	0822010825	0822010835	0822010845	0822010855
	40	0822010816	0822010826	0822010836	0822010846	0822010856
	50	0822010817	0822010827	0822010837	0822010847	0822010857
	80	-	-	-	0822010848	0822010858
100	-	-	-	0822010849	0822010859	
Piston Ø Ports	50	63	80	100		
	G 1/8	G 1/8	G 1/4	G 1/4		
Stroke 10	0822010861	0822010871	0822010881	0822010891		
15	0822010862	0822010872	-	-		
20	0822010863	0822010873	-	-		
25	0822010864	0822010874	0822010884	0822010894		
30	0822010865	0822010875	-	-		
40	0822010866	0822010876	-	-		
50	0822010867	0822010877	0822010887	0822010897		
80	0822010868	0822010878	0822010888	0822010898		
100	0822010869	0822010879	0822010889	0822010899		

Other versions can be ordered from AVENTICS sales offices.

Maximum permissible lateral force, Static



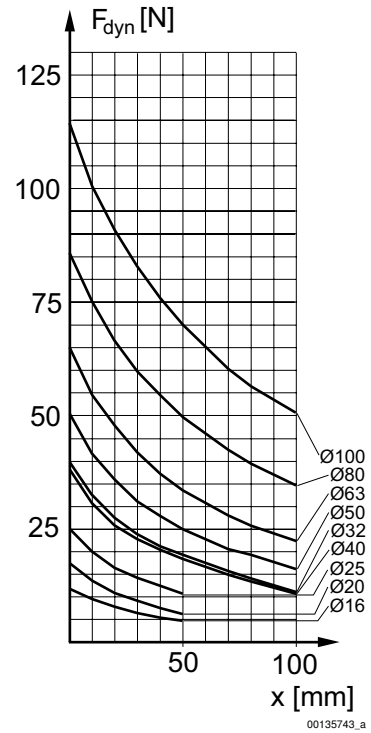
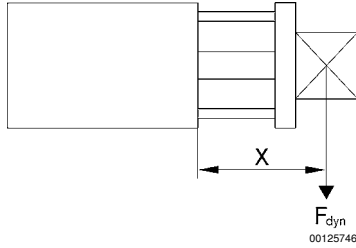
00135743

Piston rod cylinders ▶ Short-stroke and compact cylinders

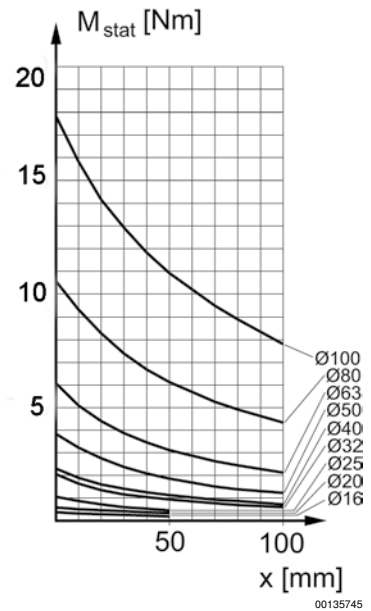
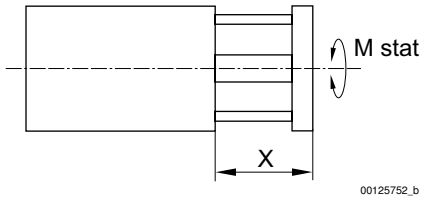
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

Maximum permissible lateral force, Dynamic



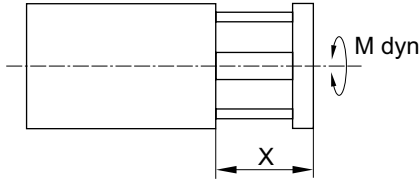
Max. permissible torque, Static



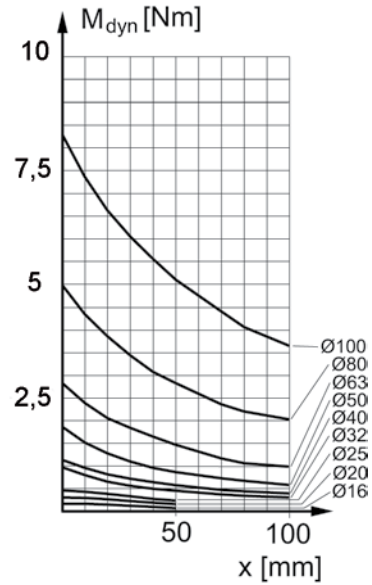
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

Max. permissible torque, Dynamic

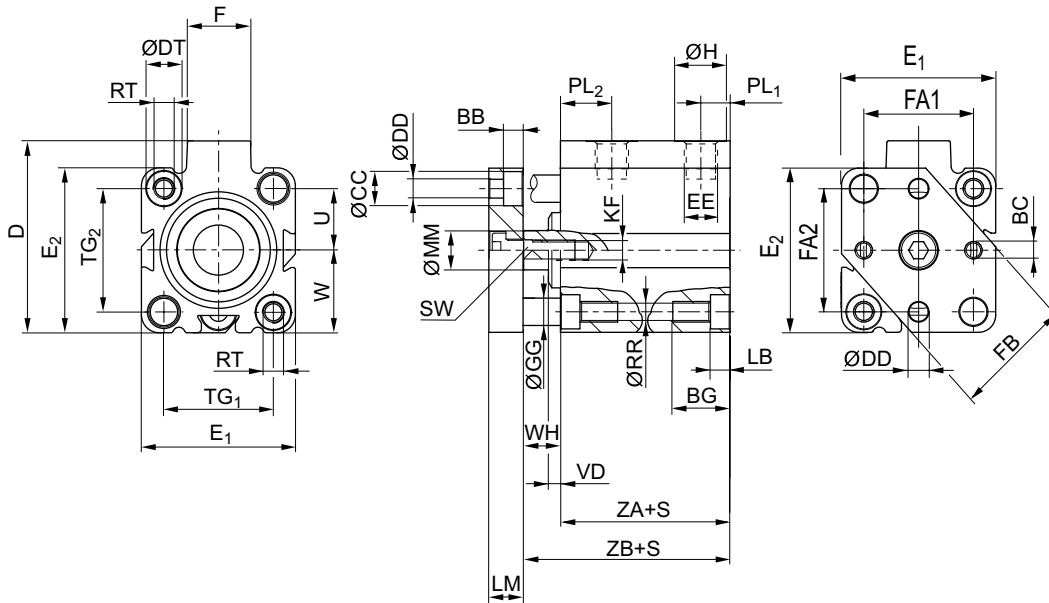


00125752_a



00135746

Dimensions



00106569

Piston Ø	S	BB	BC	BG 1)	ØCC	D JS15	ØDD	ØDT H13	E1 JS15	E2 JS15	EE	F	FB
16	10	3.5	M3	12.4	6	33	3.5	6	28	28	M5	11.5	20
16	15 - 50	3.5	M3	17.5	6	33	3.5	6	28	28	M5	11.5	20
20	10	5	M4	13.6	7.5	37	4.5	7.5	32	32	M5	11	25
20	15 - 50	5	M4	13.6	7.5	37	4.5	7.5	32	32	M5	11	25
25	10 - 50	5	M4	13.6	8	47.5	4.5	8	37	39	G 1/8	17.5	30
32	10 - 100	5.7	M5	16.7	10	56	5.5	10	45	48	G 1/8	18.5	35

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

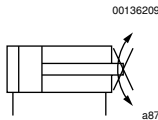
Piston Ø	S	BB	BC	BG 1)	ØCC	D JS15	ØDD	ØDT H13	E1 JS15	E2 JS15	EE	F	FB
40	10 - 100	5.7	M5	16.7	10	62.5	5.5	10	54.5	54.5	G 1/8	18.5	40
50	10 - 100	6.8	M6	19.8	11	73	6.5	11	66	66	G 1/8	18	50
63	10 - 100	9	M6	25	14	88	9	15	80	80	G 1/8	23	60
80	10/25/50 /80/100	9	M8	25	14	110	9	15	100	100	G 1/4	27	75
100	10/25/50 /80/100	9	M8	30	14	132	9	17.5	124	124	G 1/4	28	90

Piston Ø	ØGG -0,005/ -0,025	ØH	KF	LB +0,4	LM	ØMM f8	PL1	PL2	ØRR	RT	SW -0,3	TG1
16	4	8	M 5	3.4	6	8	6.5	11.3	3.3	M4	7	20 ±0,2
16	4	8	M 5	8.5	6	8	6.5	11.3	3.3	M4	7	20 ±0,2
20	5	8	M 5	4.6	8	10	6.5	10	4.2	M5	8	22 ±0,2
20	5	8	M 5	4.6	8	10	6.5	10	4.2	M5	8	22 ±0,2
25	6	15	M 5	4.6	8	10	9.5	11.5	4.2	M5	8	26 ±0,25
32	8	15	M 6	5.7	10	12	8.5	15	5.05	M6	10	32 ±0,25
40	8	15	M 6	5.7	10	12	10	13.5	5.05	M6	10	40 ±0,25
50	10	15	M 8	6.8	12	16	10	14	6.8	M8	13	50 ±0,25
63	12	15	M 8	9	12	16	11.5	14	8.5	M10	13	62 ±0,25
80	12	19	M 10	9	15	20	12	15.5	8.5	M10	17	82 ±0,3
100	14	19	M 12	11	15	25	12	18.5	10.2	M12	22	103 ±0,3

Piston Ø	TG2	U	VD -1	W	WH	FA1 ±0,1	FA2 ±0,1	ZA ±0,2	ZB ±0,8			
16	20 ±0,2	10	-	14 ±0,2	4.5	20	20	32	36.5			
16	20 ±0,2	10	-	14 ±0,2	4.5	20	20	38	42.5			
20	22 ±0,2	11	-	16 ±0,2	4.5	22	22	32	36.5			
20	22 ±0,2	11	-	16 ±0,2	4.5	22	22	38	42.5			
25	28 ±0,25	14	3.5	19,5 ±0,2	9.5	26	28	39	48.5			
32	36 ±0,25	18	3.5	24 ±0,2	11	32	36	39.5	50.5			
40	40 ±0,25	20	4.5	27,3 ±0,2	13.5	40	40	39.5	53			
50	50 ±0,25	25	6	33 ±0,2	13.5	50	50	39.5	53			
63	62 ±0,25	31	6.5	40 ±0,2	15.5	62	62	42	57.5			
80	82 ±0,3	41	8.5	50 ±0,3	18	82	82	46	64			
100	103 ±0,3	51.5	7	62 ±0,3	20	103	103	56	76			

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating



Compressed air connection

Ambient temperature min./max.

Medium temperature min./max.

Medium

Max. particle size

Oil content of compressed air

Pressure for determining piston forces

Internal thread

-25 °C / +80 °C

-25 °C / +80 °C

Compressed air

50 μm

0 mg/m³ - 5 mg/m³

6,3 bar

Materials:

Cylinder tube

Piston rod

Piston

End cover

Scraper

Aluminum, anodized

Stainless steel

Nitrile rubber

Aluminum

Polyurethane

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø		[mm]	20	25	32	40	50
Retracting piston force		[N]	148	260	435	720	1110
Extracting piston force		[N]	198	309	507	792	1237
Impact energy		[J]	0.08	0.1	0.16	0.24	0.32
Weight	0 mm stroke	[kg]	0.092	0.178	0.195	0.285	0.388
	+10 mm stroke	[kg]	0.024	0.034	0.05	0.06	0.086
Working pressure min./max.		[bar]	1 - 10	1 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Material, front cover			Brass	Brass	Aluminum	Aluminum	Aluminum

Piston Ø		[mm]	63				
Retracting piston force		[N]	1837				
Extracting piston force		[N]	1964				
Impact energy		[J]	0.38				
Weight	0 mm stroke	[kg]	0.636				
	+10 mm stroke	[kg]	0.114				
Working pressure min./max.		[bar]	0.6 - 10				
Material, front cover			Aluminum				

Piston rod cylinders ▶ Short-stroke and compact cylinders

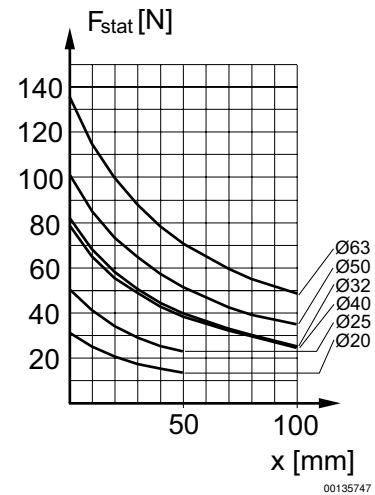
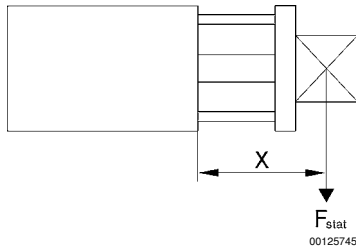
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

Piston Ø Ports	20	25	32	40	50	
	M5	G 1/8	G 1/8	G 1/8	G 1/8	
Stroke 10 15 20 25 30 40 50	0822010721	0822010731	0822010741	0822010751	0822010761	
	0822010722	0822010732	0822010742	0822010752	0822010762	
	0822010723	0822010733	0822010743	0822010753	0822010763	
	0822010724	0822010734	0822010744	0822010754	0822010764	
	0822010725	0822010735	0822010745	0822010755	0822010765	
	0822010726	0822010736	0822010746	0822010756	0822010766	
Piston Ø Ports	63					
	G 1/8					
	Stroke 10 15 20 25 30 40 50	0822010771				
		0822010772				
		0822010773				
		0822010774				
0822010775						
0822010776						
50	0822010777					

Other versions can be ordered from AVENTICS sales offices.

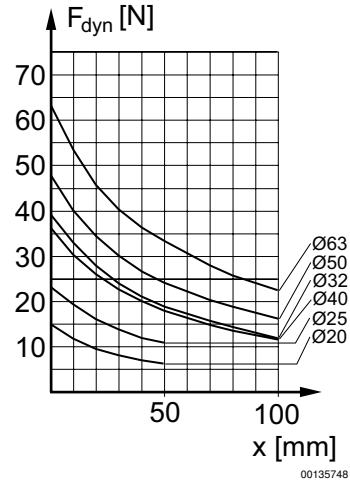
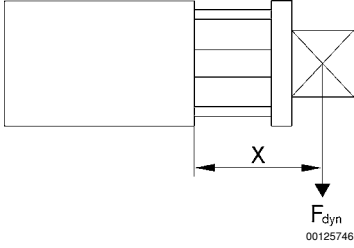
Maximum permissible lateral force, Static



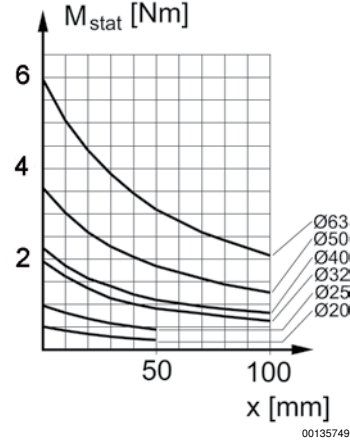
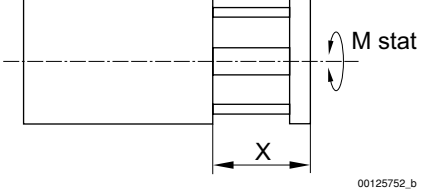
Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

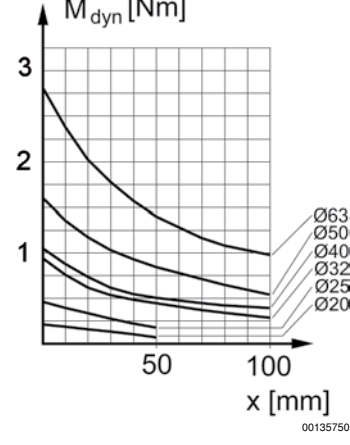
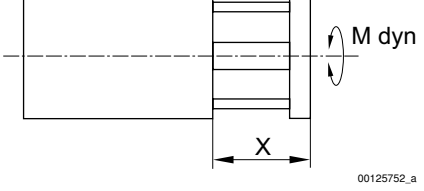
Maximum permissible lateral force, Dynamic



Max. permissible torque, Static



Max. permissible torque, Dynamic

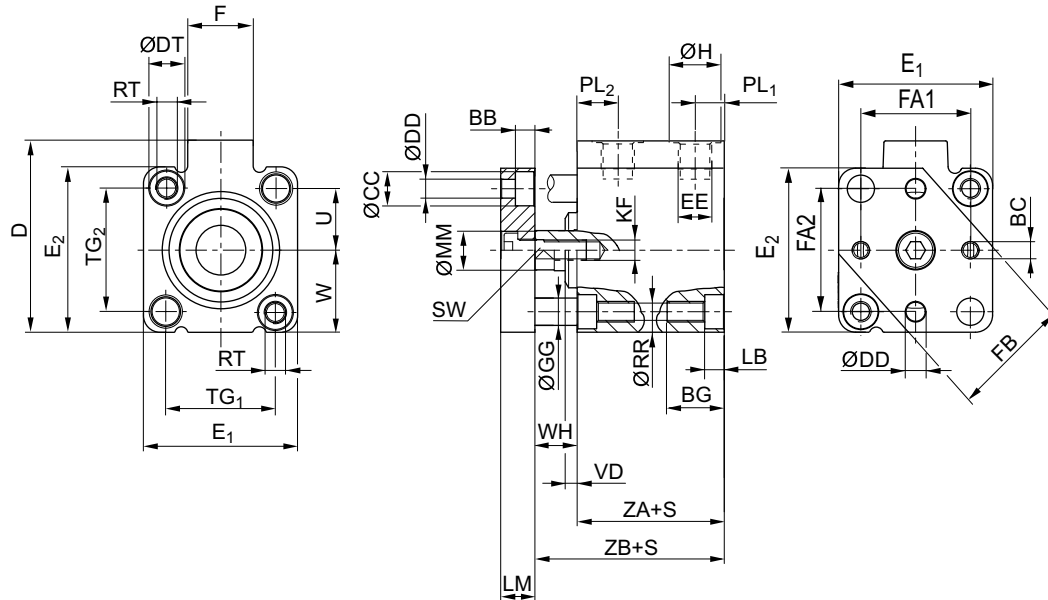


Piston rod cylinders ▶ Short-stroke and compact cylinders

Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread, non-rotating

Dimensions



00106566

Piston Ø	S	BB	BC	BG ¹⁾	ØCC	D JS15	ØDD	ØDT H13	E1 JS15	E2 JS15	EE	F	FB
20	10 - 50	5	M 4	13.6	7.5	37	4.5	7.5	32	32	M 5	11	25
25	10 - 50	5	M 4	13.6	8	47.5	4.5	8	37	39	G 1/8	17,5	30
32	10 - 50	5,7	M 5	16.7	10	56	5.5	10	45	48	G 1/8	18.5	35
40	10 - 50	5,7	M 5	16.7	10	62.5	5.5	10	54.5	54.5	G 1/8	18.5	40
50	10 - 50	6,8	M 6	19.8	11	72	6.5	11	64	64	G 1/8	18	50
63	10 - 50	9	M 6	25	14	88	9	15	80	80	G 1/8	23	60

Piston Ø	ØGG -0,005/ -0,025	ØH	KF	LB +0,4	LM	ØMM f8	PL1	PL2	ØRR	RT	SW -0,3	TG1
20	5	8	M 5	4.6	8	10	5	8	4.2	M 5	8	22 ±0,2
25	6	15	M 5	4.6	8	10	9	11	4.2	M 5	8	26 ±0,25
32	8	15	M 6	5.7	10	12	8.5	12	5.05	M 6	10	32 ±0,25
40	8	15	M 6	5.7	10	12	9	11	5.05	M 6	10	40 ±0,25
50	10	15	M 8	6.8	12	16	8,5	11	6.8	M 8	13	50 ±0,25
63	12	15	M 8	9	12	16	8,5	12,5	8.5	M 10	13	62 ±0,25

Piston Ø	TG2	U	W	VD -1	WH	FA1 ±0,1	FA2 ±0,1	ZA ±0,2	ZB ±0,8			
20	22 ±0,2	11	16 ±0,2	-	9,5	22	22	24.5	34			
25	28 ±0,25	14	19,5 ±0,2	3.5	11,5	26	28	31	42.5			
32	36 ±0,25	18	24 ±0,2	3.5	12,5	32	36	33	45.5			
40	40 ±0,25	20	27,3 ±0,2	4.5	15	40	40	33	48			
50	50 ±0,25	25	32 ±0,2	6	17	50	50	32.5	49.5			
63	62 ±0,25	31	40 ±0,2	6.5	17	62	62	35.5	52.5			

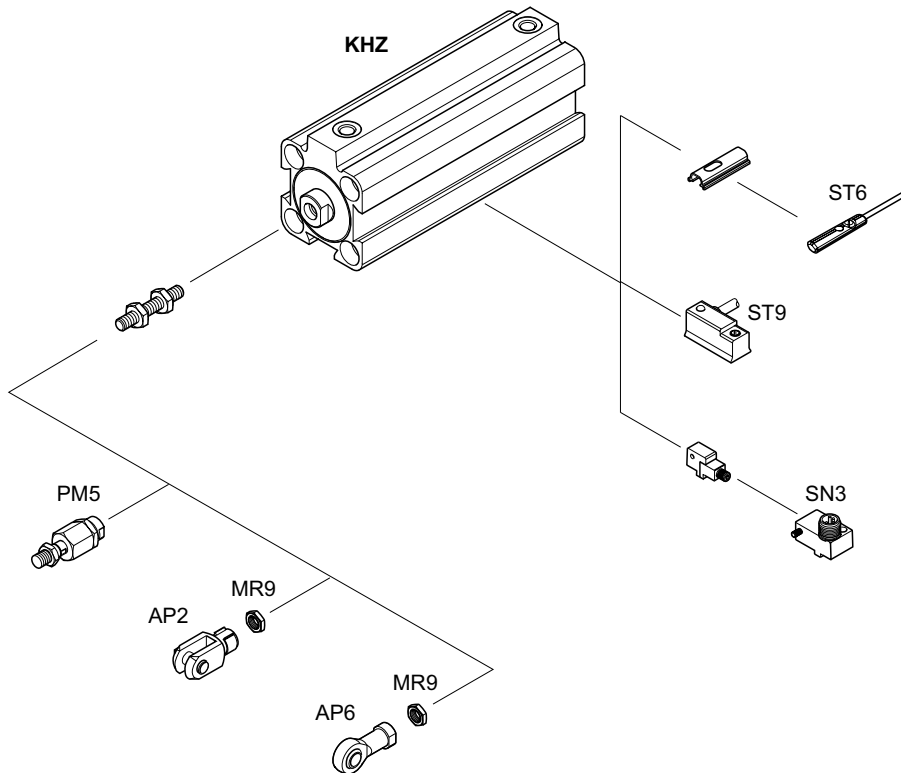
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Pneumatics catalog, online PDF, as of 2017-04-27, ©AVENTICS S.à r.l., subject to change

Series KHZ
 Accessories

Accessories overview

Overview drawing



00136562

NOTE:

This overview drawing is only for orientation to see where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.

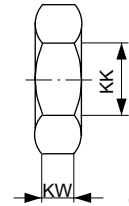
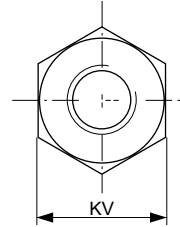
Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ
Accessories

Nut for piston rod, Series MR9



00105168



00105192

Part No.	KK	KV	KW	Material	Surface	Weight [kg]				
1823300033	M6	10	3.2	Steel	galvanized	0.004				
1823300034	M8	13	4	Steel	galvanized	0.005				
8103040224	M10	17	8	Steel	galvanized	0.011				
1823300020	M10x1,25	17	6	Steel	galvanized	0.01				

Rod clevis, Series AP2
▶ galvanized steel



00105171

Fig. 1

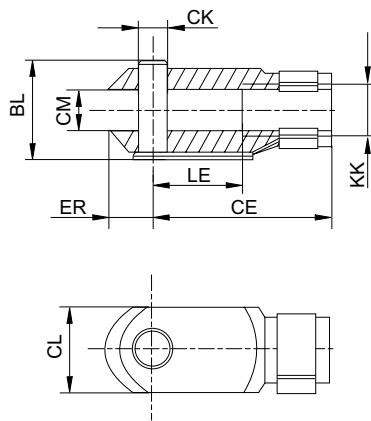
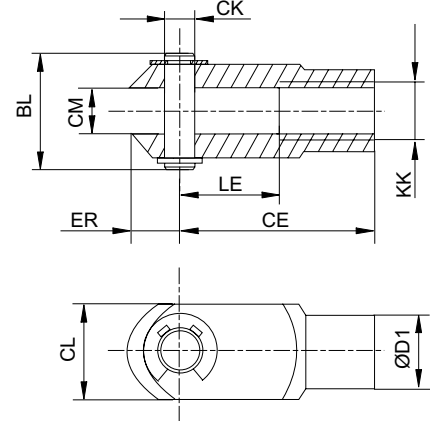


Fig. 2



00126410

Part No.	KK	BL	CE	ØCK e11	CL	CM	ØD1	ER	LE	Material
1822122009	M6	16	24	6	12	6	10	7	12	Steel
1822122010	M8	21,5	32	8	16	8	14	10	16	Steel
8958000122	M10	26	40	10	20	10	18	12	20	Steel

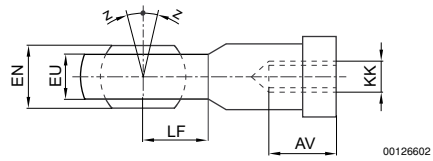
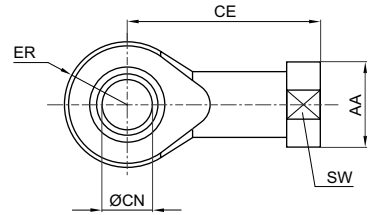
Part No.	Surface	Weight [kg]	Fig.							
1822122009	galvanized	0.02	Fig. 1							
1822122010	galvanized	0.05	Fig. 1							
8958000122	galvanized	0.1	Fig. 1							

Series KHZ
Accessories

Ball eye rod end with flange, Series AP6
▶ galvanized steel



00105172



00126602

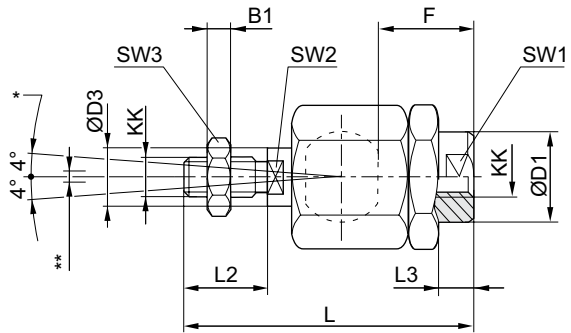
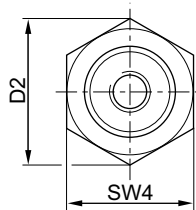
Part No.	KK	AA	AV min.	CE	Ø CN H7	EN -0,1	ER	EU max.	LF	SW	Z [°] max.
1822124001	M6	13	9	30	6	9	10	7.5	10	11	4
1822124002	M8	16	12	36	8	12	12	9.5	12	14	4

Part No.	Material	Surface	Weight [kg]
1822124001	Steel	galvanized	0.03
1822124002	Steel	galvanized	0.05

Flexible spherical coupling, Series PM5



00105169



D300_029

* Angle joint
** Radial joint from 0.5 - 2 mm
Axial play set to 0.05 to 0.2 mm

Part No.	KK	B1	Ø D1	D2	Ø D3	F	L ±2	L2	L3 ±1	SW1	SW2	SW3
R412007860	M5	2.5	8.5	14.8	6	12	38.5	13.5	4.3	7	5	8
1826409000	M6	3.2	8.5	15	6	11.5	39	12	3.5	7	5	10
1826409001	M8	4	12.5	20	8	14.5	55	15	5	10	6	13

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Part No.	KK	B1	Ø D1	D2	Ø D3	F	L ±2	L2	L3 ±1	SW1	SW2	SW3
1826409002	M10x1,25	6	21.5	34	14	23	73	20	7.5	19	12	17

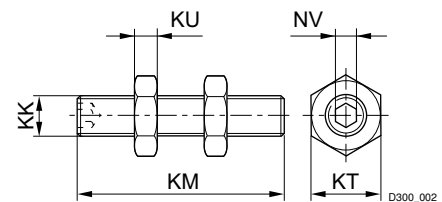
Part No.	SW4	Material	Surface	Weight [kg]
R412007860	13	Steel	galvanized	0.02
1826409000	13	Steel	galvanized	0.02
1826409001	17	Steel	galvanized	0.05
1826409002	30	Steel	galvanized	0.21

Male threaded rods

▶ for Series KHZ and SSI with internal thread



P300_001



Part No.	KK	For series	KM	KT	KU	NV	Material	Weight [kg]
2701412000	M3	KHZ and SSI with internal thread	20	5.5	1.8	1.5	Stainless steel	0.01
2701420000	M5	KHZ and SSI with internal thread	25	8	2.7	2.5	Stainless steel	0.015
2701432000	M6	KHZ and SSI with internal thread	30	10	3.2	3	Stainless steel	0.02
2701450000	M8	KHZ and SSI with internal thread	35	13	4	4	Stainless steel	0.03
2701463000	M10	KHZ and SSI with internal thread	40	16	5	5	Stainless steel	0.05

Series KHZ Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 2-pin, open cable ends, 3-pin



24712

Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 °C / +80 °C
Protection class	IP65, IP67, IP69K
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Technical Remarks

- No cULus certification for 230 V variant.

	Type of contact	Cable length	DC operating voltage min./max.	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V DC]	[V AC]		[A]	[A]	
	Reed	3	10 / 230	10 / 230	I*Rs	0.13	0.13	R412022866
	Reed	3 5 10	10 / 30	10 / 30	I*Rs	0.3	0.5	R412022869 R412022870 R412022871
	electronic PNP	3 5 10	10 / 30	-	≤ 2,5 V	0.13	-	R412022853 R412022855 R412022857
	electronic NPN	3 5	10 / 30	-	≤ 2,5 V	0.13	-	R412022849 R412022850

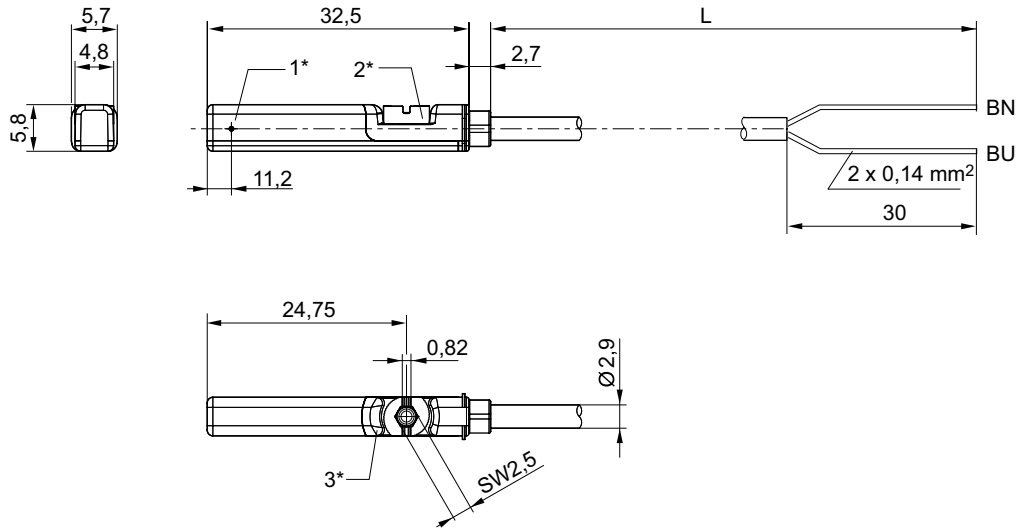
Part No.	Max. switching frequency kHz	Operating current, not switched	Operating current, switched	Fig.	Note
R412022866	< 0,4	-	-	Fig. 1	1); 3)
R412022869 R412022870 R412022871	< 0,4	-	-	Fig. 2	2); 3)
R412022853 R412022855 R412022857	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022849 R412022850	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)

- 1) interfaces: open cable ends; 2-pin
- 2) interfaces: open cable ends; 3-pin
- 3) Protected against polarity reversal
- 4) short circuit resistant / Protected against polarity reversal

Piston rod cylinders ▶ Short-stroke and compact cylinders

**Series KHZ
Accessories**

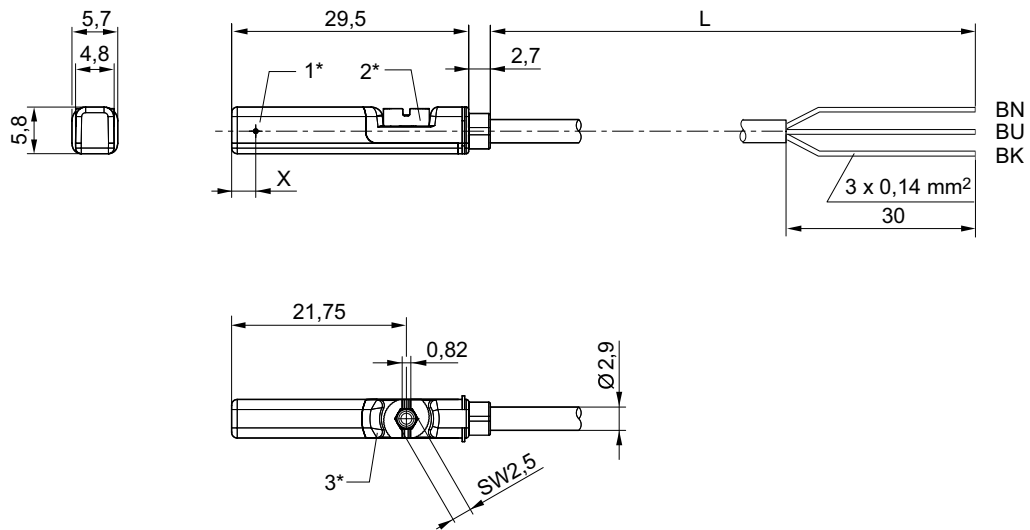
Fig. 1



24619

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Fig. 2



24620

1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11,6 mm, Reed: 8,3 mm

Series KHZ Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 3-pin ▶ ATEX certified



24712

Certificates

ATEX

Ambient temperature min./max.
Protection class
Switching point precision [mm]
Quiescent current (without load)
DC operating voltage min./max.
Switching logic
LED status display
Vibration resistance
Shock resistance

Materials:

Housing
Cable sheath
Locking screw

CE declaration of conformity
cULus
RoHS
II 3G Ex nA op is IIC T4 Gc X
II 3D Ex tc IIIC T135°C Dc X
-20°C / +50°C
IP67
±0,1
< 10 mA
10 V DC - 30 V DC
NO (make contact)
Yellow
10 - 55 Hz, 1 mm
30 g / 11 ms

Polyamide
Polyurethane
Stainless steel

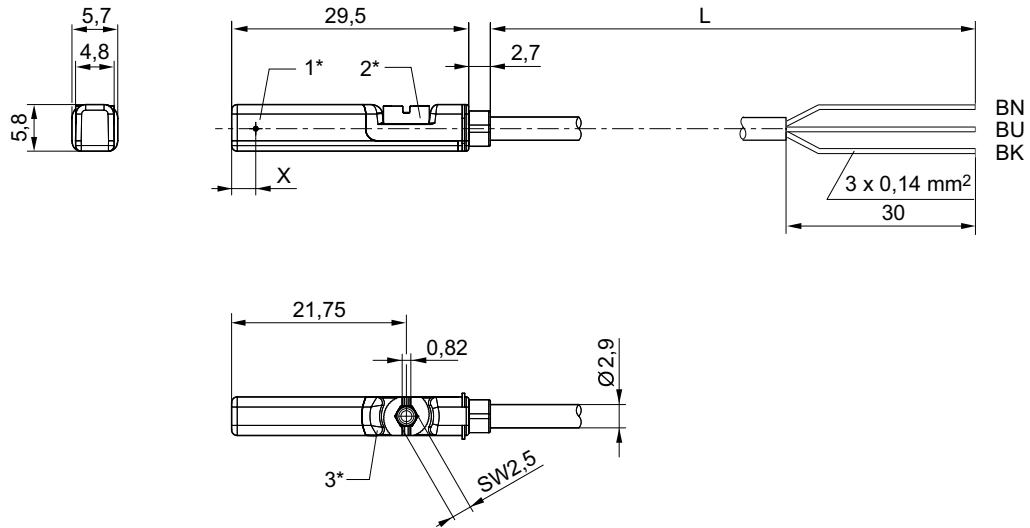
	Type of contact	Cable length	Voltage drop U at I _{max}	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	3	≤ 2,5 V	0.1	< 1,0	R412022854
		5				R412022856

interfaces: open cable ends; 3-pin
short circuit resistant / Protected against polarity reversal

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Dimensions



24620

1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 BN = brown, BK = black, BU = blue
 X = electronic: 11.6 mm

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw



24713

Certificates

Ambient temperature min./max.
 Protection class
 Switching point precision [mm]
 DC operating voltage min./max.
 Switching logic
 Switching capacity
 LED status display
 Vibration resistance
 Shock resistance

Materials:

Housing
 Locking screw

CE declaration of conformity

cULus
 RoHS
 -30 °C / +80 °C
 IP65, IP67
 ±0,1
 10 V DC - 30 V DC
 NO (make contact)
 Reed, 3-pin: max. 6 W
 Yellow
 10 - 55 Hz, 1 mm
 30 g / 11 ms



Polyamide
 Stainless steel

	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	Reed	Polyurethane	0.3	10 / 30	I*Rs	0.3	0.5	R412022873
		Polyvinyl chloride	0.3					R412022875
		Polyurethane	0.5					R412022874

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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Series KHZ Accessories

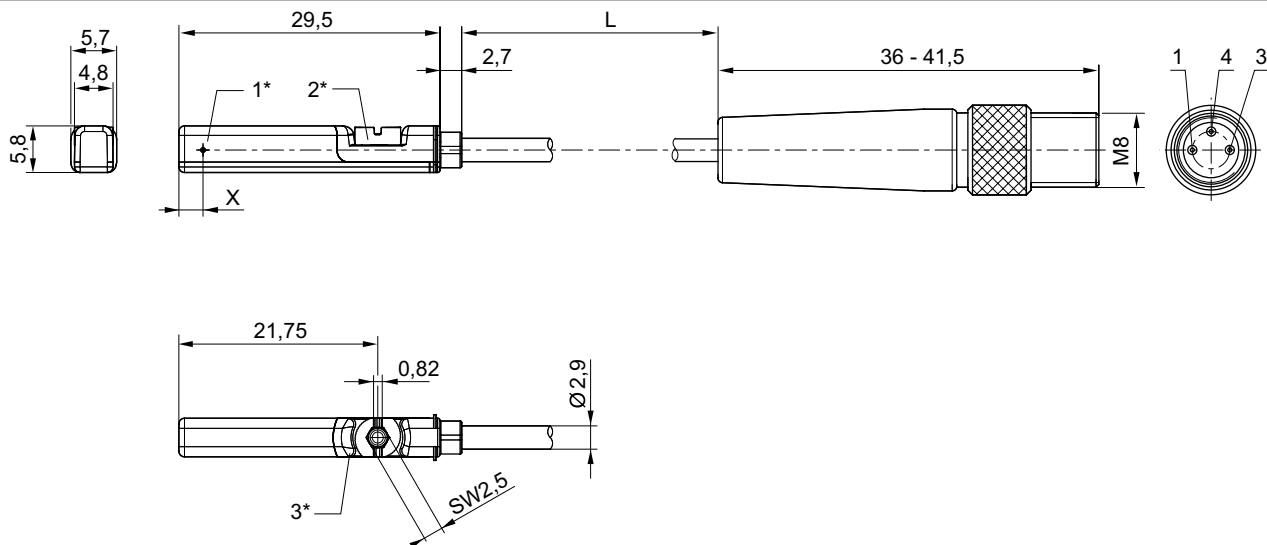
	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	electronic PNP	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	R412022859
		Polyvinyl chloride	0.3					R412022862
		Polyurethane	0.5					R412022861
	electronic NPN	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	R412022852

Part No.	Max. switching frequency kHz	Operating current, not switched	Operating current, switched	Note
R412022873 R412022875 R412022874	< 0,4	-	-	1)
R412022859 R412022862 R412022861	< 1,0	< 8 mA	< 30 mA	2)
R412022852	< 1,0	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal

2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin; with knurled screw

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent

L = cable length

X = electronic: 11,6 mm, Reed: 8,3 mm

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24622

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw ▶ ATEX certified



24713

Certificates

CE declaration of conformity
cULus
RoHS

ATEX

II 3G Ex nA op is IIC T4 Gc X
II 3D Ex tc IIIC T135°C Dc X

Ambient temperature min./max.

-20°C / +50°C

Protection class

IP67

Switching point precision [mm]

±0,1

Quiescent current (without load)

< 10 mA

DC operating voltage min./max.

10 V DC - 30 V DC

Switching logic

NO (make contact)

LED status display

Yellow

Vibration resistance

10 - 55 Hz, 1 mm

Shock resistance

30 g / 11 ms

Materials:

Housing

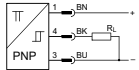
Polyamide

Cable sheath

Polyurethane

Locking screw

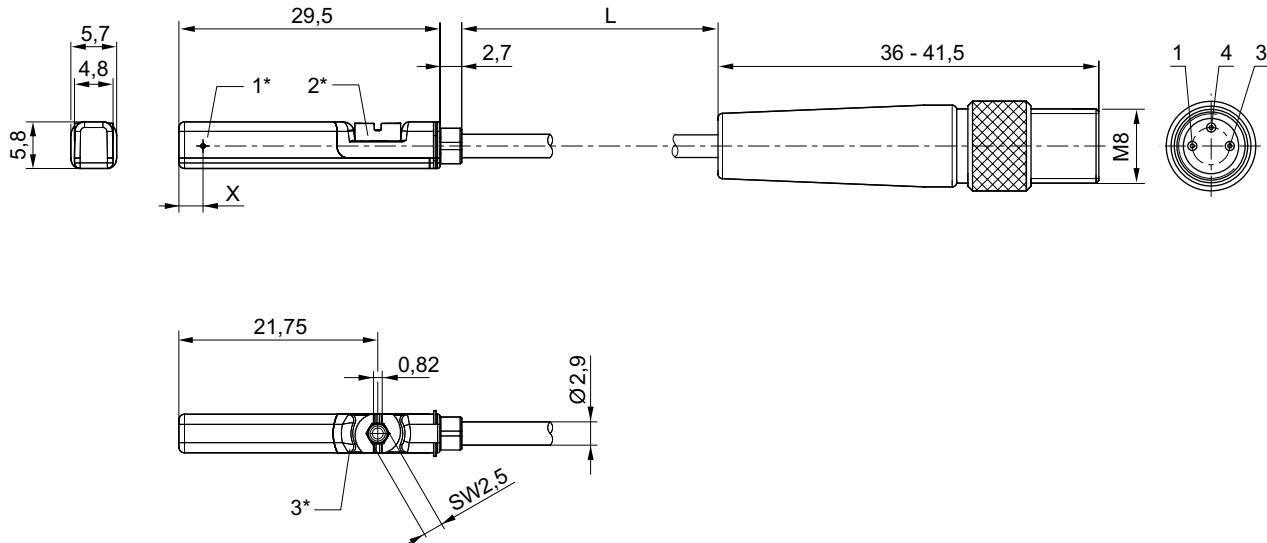
Stainless steel

	Type of contact	Cable length	Voltage drop U at I _{max}	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	0.3	≤ 2,5 V	0.1	< 1,0	R412022860

interfaces: Plug; M8; 3-pin; with knurled screw
short circuit resistant / Protected against polarity reversal

Series KHZ Accessories

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = PNP: 11,6 mm
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24622

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin



24742

Certificates

Ambient temperature min./max.
 Protection class
 Switching point precision [mm]
 DC operating voltage min./max.
 Switching logic
 Switching capacity
 LED status display
 Vibration resistance
 Shock resistance

Materials:

Housing
 Cable sheath
 Locking screw

CE declaration of conformity
 cULus
 RoHS
 -30°C / +80°C
 IP65, IP67
 ±0,1
 10 V DC - 30 V DC
 NO (make contact)
 Reed, 2-pin: max. 10 W
 Reed, 3-pin: max. 6 W
 Yellow
 10 - 55 Hz, 1 mm
 30 g / 11 ms

Polyamide
 Polyurethane
 Stainless steel




	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.13	0.13	< 0,4	R412022868

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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Piston rod cylinders ▶ Short-stroke and compact cylinders

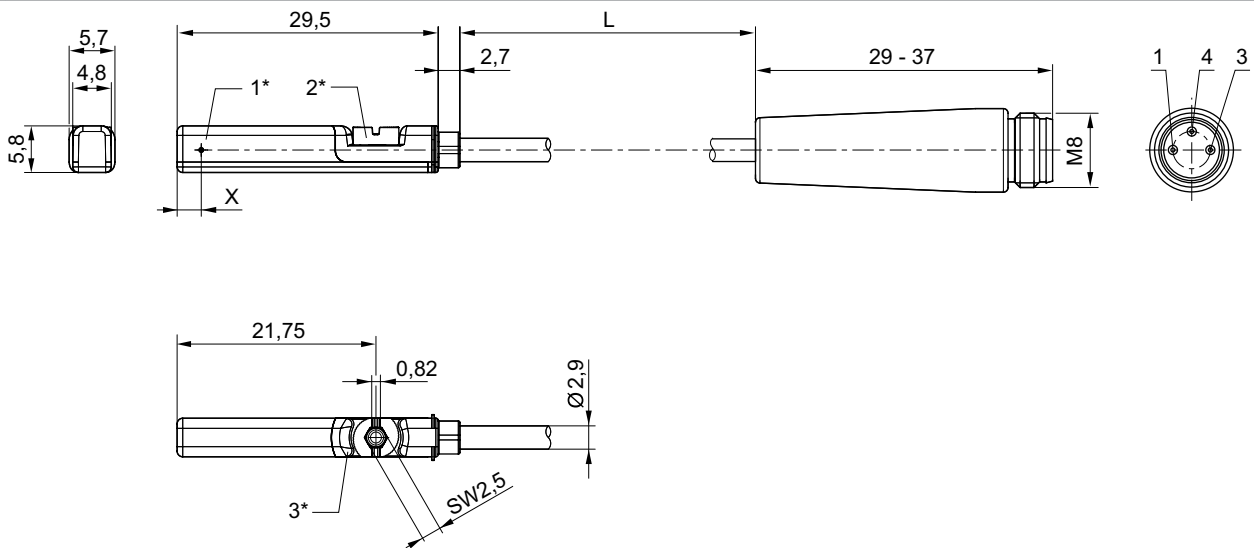
Series KHZ Accessories

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.3	0.5	< 0,4	R412022872
	electronic NPN	0.3	-	≤ 2,5 V	0.13	-	< 1,0	R412022851
	electronic PNP	0.3	-	≤ 2,5 V	0.13	-	< 1,0	R412022858

Part No.	Operating current, not switched	Operating current, switched	Note
R412022868	-	-	1)
R412022872	-	-	1)
R412022851	< 8 mA	< 30 mA	2)
R412022858	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
 2) short circuit resistant / Protected against polarity reversal
 interfaces: Plug; M8; 3-pin

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = electronic: 11,6 mm, Reed: 8,3 mm
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24621

Series KHZ Accessories

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw



24714

Certificates



Ambient temperature min./max.
Protection class
Switching point precision [mm]
DC operating voltage min./max.
Switching logic
Switching capacity
LED status display
Vibration resistance
Shock resistance

CE declaration of conformity

cULus
RoHS
-30 °C / +80 °C
IP65, IP67
±0,1
10 V DC - 30 V DC
NO (make contact)
Reed, 3-pin: max. 6 W
Yellow
10 - 55 Hz, 1 mm
30 g / 11 ms

Materials:

Housing Polyamide
Cable sheath Polyurethane
Locking screw Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.3	0.5	< 0,4	R412022876
	electronic PNP	0.1 0.3 3 5	-	≤ 2,5 V	0.13	-	< 1,0	R412022879 R412022863 R412022877 R412022878

Part No.	Operating current, not switched	Operating current, switched	Note
R412022876	-	-	1)
R412022879 R412022863 R412022877 R412022878	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal

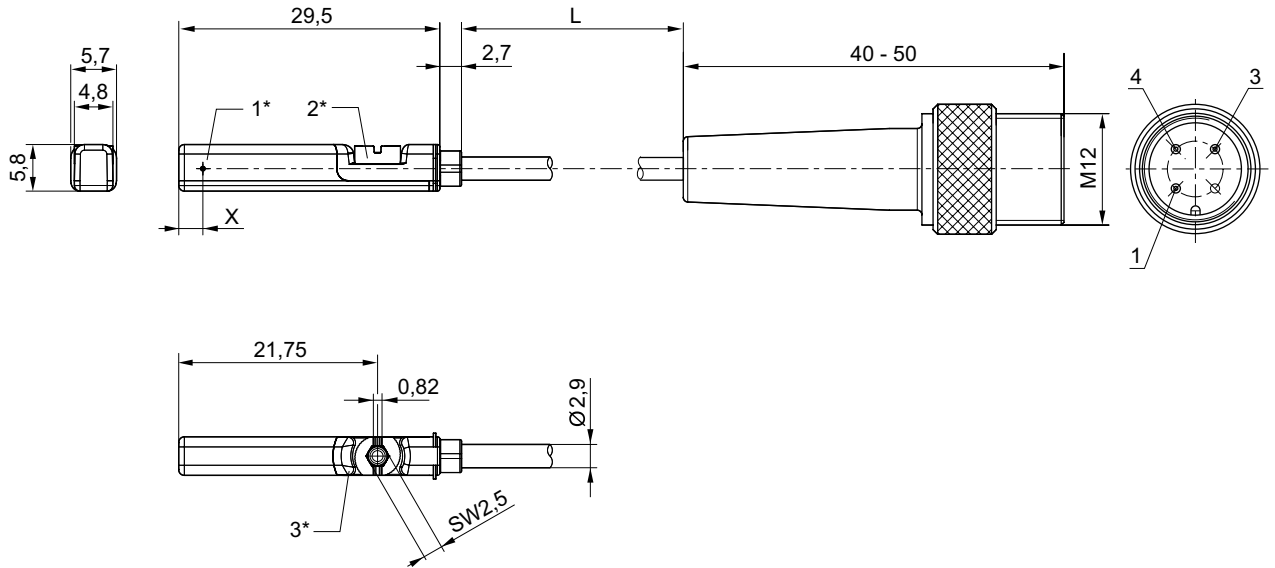
2) short circuit resistant / Protected against polarity reversal

interfaces: Plug; M12; 3-pin; with knurled screw

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ
Accessories

Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = PNP: 11,6 mm, reed: 8,3 mm
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

24623

Sensor, Series ST6

▶ 6 mm T-slot ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw ▶ ATEX certified



24714

Certificates

ATEX

Ambient temperature min./max.
 Protection class
 Switching point precision [mm]
 Quiescent current (without load)
 DC operating voltage min./max.
 Switching logic
 LED status display
 Vibration resistance
 Shock resistance

Materials:

Housing
 Cable sheath
 Locking screw

CE declaration of conformity
 cULus
 RoHS

II 3G Ex nA op is IIC T4 Gc X
 II 3D Ex tc IIIC T135°C Dc X

-20°C / +50°C
 IP67
 ±0,1
 < 10 mA
 10 V DC - 30 V DC
 NO (make contact)
 Yellow
 10 - 55 Hz, 1 mm
 30 g / 11 ms

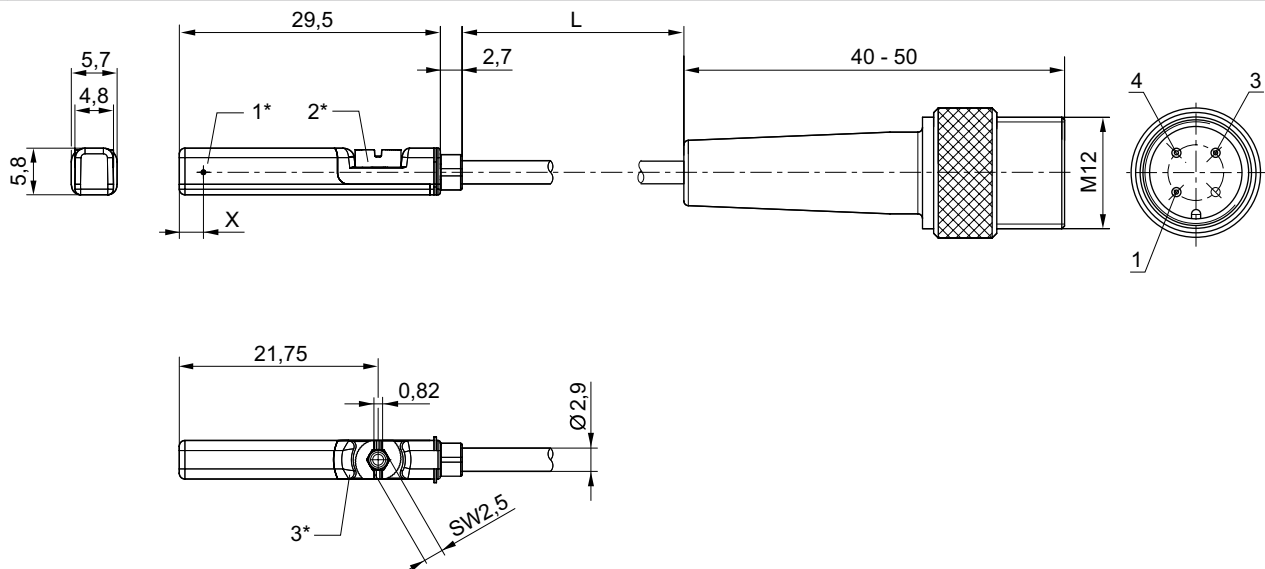
Polyamide
 Polyurethane
 Stainless steel

Series KHZ

Accessories

	Type of contact	Cable length	Voltage drop U at I _{max}	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	0.3	≤ 2,5 V	0.1	< 1,0	R412022864
interfaces: Plug; M12; 3-pin; with knurled screw short circuit resistant / Protected against polarity reversal						

Dimensions



24623

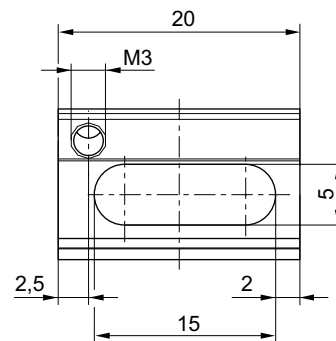
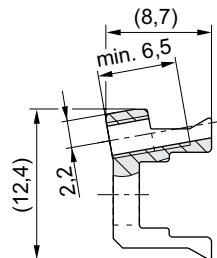
1* = switching point 2* = locking screw 3* = LED window, transparent
 L = cable length
 X = PNP: 11,6 mm
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor mounting, Series CB1

▶ for Series ST6 ▶ to mount on cylinder KHZ



24744



24662

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Part No.	For series	Material	Weight [kg]						
R422100250	ST6	Aluminum	0.034						

Scope of delivery: incl. threaded pin

Sensor, Series ST9

▶ 9 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 2-pin, without wire end ferrule, tin-plated, 3-pin



00105968_2

Ambient temperature min./max.
Protection class
Switching point precision [mm]
Vibration resistance
Shock resistance

See table below
IP67, IP65
±0,1
60 g (50 - 2000 Hz)
100 g / 11 ms

Materials:
Housing

epoxy resin

Technical Remarks

- If reed sensors are used, we recommend using a short-circuit protective device (SCPD).

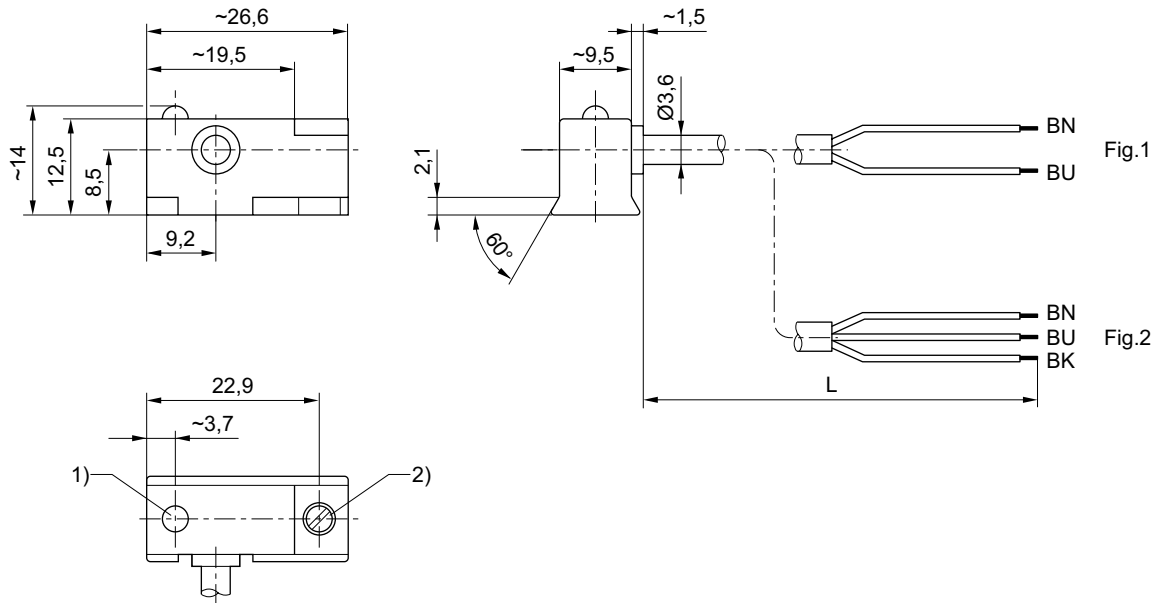
	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	Reed	Polyvinyl chloride	3	0 / 24	I*Rs	0.13	0.2	0830100320
		Polyvinyl chloride	3	12 / 24	2,1 V + I*Rs			0830100380
		Polyvinyl chloride	5	12 / 24	2,1 V + I*Rs			0830100381
		Polyurethane	3	12 / 24	2,1 V + I*Rs			0830100382
	Reed	Polyurethane	3	12 / 24	I*Rs	0.13	0.2	0830100390
	electronic PNP	Polyvinyl chloride	3		≤ 2,0 V	0.2		0830100385
		Polyvinyl chloride	5					0830100386
		Polyurethane	3					0830100387

Series KHZ Accessories

Part No.	Ambient temperature min./max.	Switching capacity	Protective resistor for reed	Max. switching frequency kHz	Operating current, not switched	Operating current, switched	LED	Note
	[°C]							
0830100320 0830100380 0830100381 0830100382	-20°C / +80°C	3 W / 5 VA	1,3	-	-	-	- Yel- low Yel- low Yel- low	1); 3)
0830100390	-20°C / +80°C	3 W / 5 VA	1,3	-	-	-	Yel- low	2); 3)
0830100385 0830100386 0830100387	-10°C / +70°C	-	-	< 2,0	< 3 mA	< 7 mA	Yel- low	2); 4); 5)

- 1) interfaces: without wire end ferrule, tin-plated; 2-pin
 2) interfaces: without wire end ferrule, tin-plated; 3-pin
 3) Protected against polarity reversal
 4) short circuit resistant / Protected against polarity reversal
 5) With stretched impulse

Dimensions



- 1) LED
 2) Clamping screw
 L = cable length
 BN = brown, BK = black, BU = blue

00111943_a

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Sensor, Series ST9 ▶ 9 mm groove ▶ Plug, M8, 3-pin



00105968_1

Ambient temperature min./max.
Protection class
Switching point precision [mm]
Nominal current, actuated state
Vibration resistance
Shock resistance

See table below
IP67, IP65
±0,1
< 7 mA
60 g (50 - 2000 Hz)
100 g / 11 ms

Materials:
Housing

Polyamide

Technical Remarks

- If reed sensors are used, we recommend using a short-circuit protective device (SCPD).

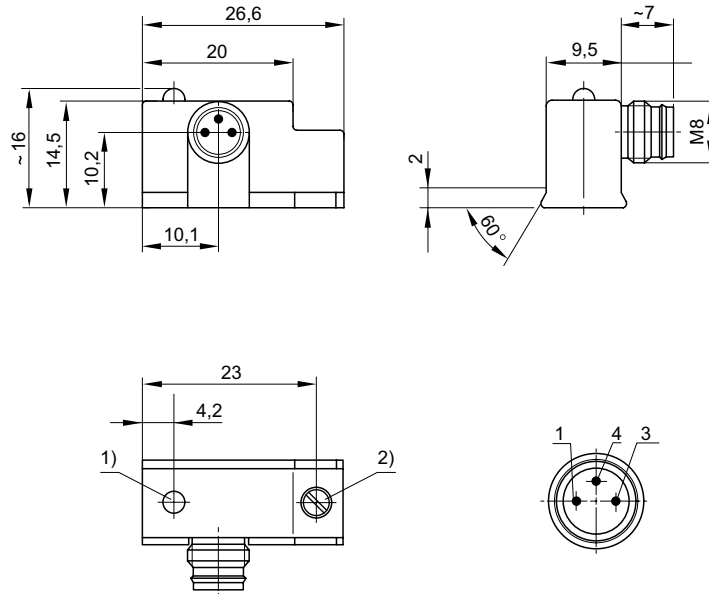
	Type of contact	Operational voltage AC min./max.	Voltage drop U at I _{max}	DC switching current, max.	AC switching current, max.	Ambient temperature min./max.	Part No.
		[V AC]		[A]	[A]	[°C]	
	Reed	10 / 30	I*Rs	0.13	0.2	-20°C / +80°C	0830100486
	electronic PNP	-	≤ 2,0 V	0.2	-	-10°C / +70°C	0830100487

Part No.	Switching capacity	Protective resistor for reed	Max. switching frequency kHz	Operating current, not switched	LED	Note
0830100486	3 W / 5 VA	27	-	-	Yellow	1)
0830100487	-	-	< 2,0	< 3 mA	Yellow, Yellow	2)

- 1) Protected against polarity reversal
2) Protected against polarity reversal / short circuit resistant
interfaces: Plug; M8; 3-pin

Series KHZ Accessories

Dimensions



00111943_b

1) LED

2) Clamping screw

M8: combination plug can be combined with electrical connectors Ø6.5 mm and M8.

Pin assignments: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor, Series SN3

▶ Plug, M12, 3-pin ▶ welding-proof



00118461

Ambient temperature min./max.
Protection class
Switching point precision [mm]
Nominal current, actuated state
Quiescent current (without load)
LED status display
Vibration resistance
Shock resistance

-25°C / +70°C
IP67, IP65
±0,1
≤ 10 mA
≤ 5 mA
Yellow
55 Hz, 1 mm
30 g / 11 ms

Materials:
Housing

Polyamide

	Type of contact	Voltage drop U at I _{max}	DC switching current, max.	Max. switching frequency kHz	Part No.
			[A]		
	electronic PNP	≤ 1,8 V	0.2	0,02	0830100438

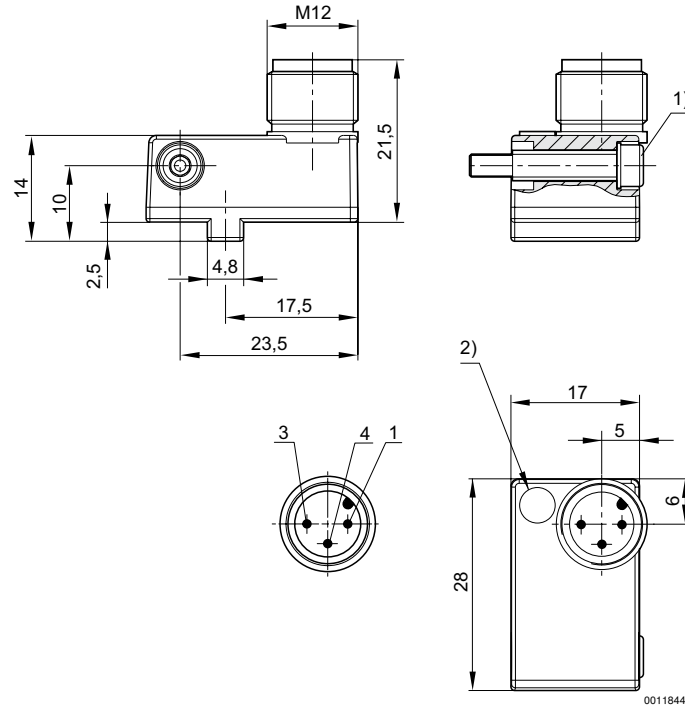
interfaces: Plug; M12; 3-pin

short circuit resistant / Protected against polarity reversal

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ
Accessories

Dimensions



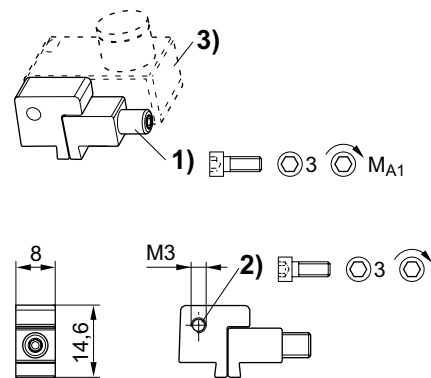
- 1) Clamping screw
- 2) LED
- Pin assignments: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Sensor mounting, Series CB1

▶ for Series SN3 ▶ to mount on cylinder PRA, KPZ, GPC, CCI, KHZ



00112453



00122794

- 1) Clamping screw 2) Mounting screw for sensor 3) Sensor

Part No.	For series	1)	MA1 [Nm]	Material	Weight [kg]			
1827020386	SN3	M3x25	1,8 +0,4	Aluminum	0.007			

Series KHZ Accessories

Connecting cable, Series CN2

▶ Socket, M8, 3-pin, straight ▶ open cable ends, 3-pin



00107009_b

Ambient temperature min./max.
Protection class

-40°C / +85°C
IP65

Materials:
Cable sheath

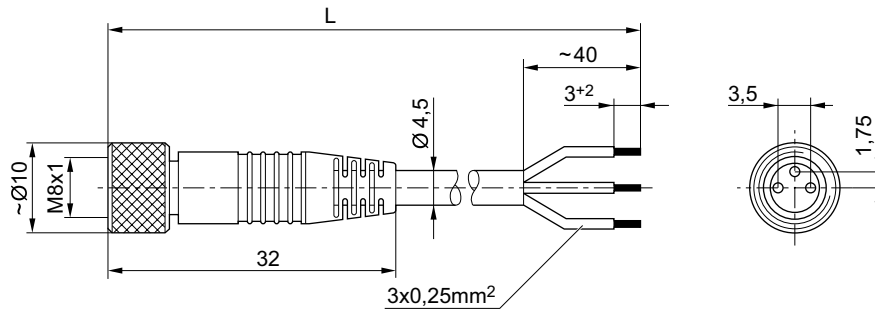
Polyurethane

Technical Remarks

- The specified protection class is only valid in assembled and tested state.

Max. current	Number of wires	Wire cross-section	Cable-Ø	Cable length L	Weight	Part No.
[A]		[mm ²]	[mm]	[m]	[kg]	
4	3	0.24	4.5	3	0.091	1834484166
				5	0.145	1834484168
				10	0.33	1834484247

Dimensions



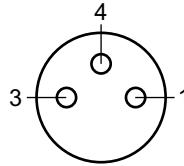
00105612_a

L = length

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Pin assignment



Buchse_3-polig

- (1) BN=brown
- (3) BU=blue
- (4) BK=black

Connecting cable, Series CN2

▶ Socket, M8x1, 3-pin, angled ▶ open cable ends, 3-pin



00107009_c

Ambient temperature min./max.
Protection class

-40°C / +85°C
IP65

Materials:
Cable sheath

Polyurethane

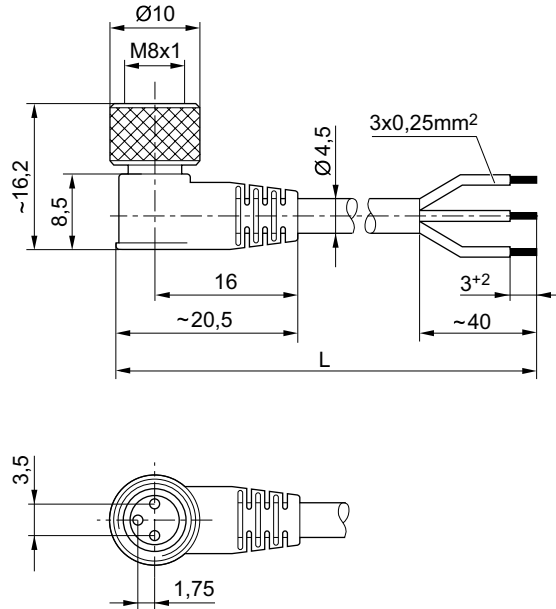
Technical Remarks

- The specified protection class is only valid in assembled and tested state.

	Max. current	Number of wires	Wire cross-section	Cable-Ø	Cable length L	Weight	Part No.
	[A]		[mm ²]	[mm]	[m]	[kg]	
	4	3	0.24	4.5	3	0.092	1834484167
					5	0.141	1834484169
					10	0.276	1834484248

Series KHZ Accessories

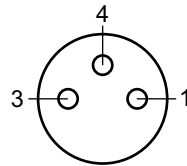
Dimensions



00105612_b

L = length

Pin assignment



Buchse_3-polig

- (1) BN=brown
- (3) BU=blue
- (4) BK=black

Socket, M8x1, Series CN2 ▶ Socket, M8x1, 3-pin



Ambient temperature min./max.
Protection class

-25°C / +80°C
IP67

Materials:
Housing

Polyamide

00138877

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

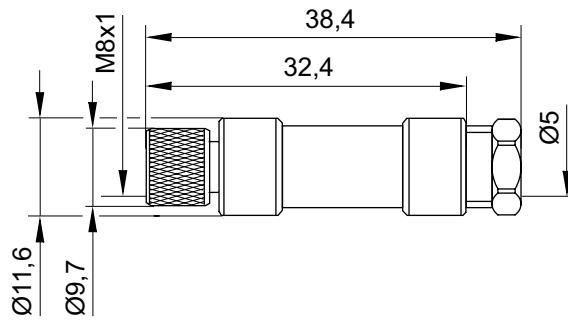
Technical Remarks

- The specified protection class is only valid in assembled and tested state.

	Operational voltage	Max. current	Cable exit	suitable cable-Ø min./max	number of plug options 1	Housing color	Part No.
	AC						
	[V]	[A]		[mm]			
	48	4	straight	3.5 / 5	1 position	Black	1834484173

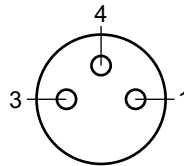
Part No.	Weight
	[kg]
1834484173	0.008

Dimensions



16405

Pin assignment



Buchse_3-polig

Series KHZ Accessories

Socket, M8x1, Series CN2 ▶ Socket, M8x1, 3-pin, angled



16406

Ambient temperature min./max.	-25°C / +85°C
Protection class	IP65
Materials:	
Housing	Polyamide

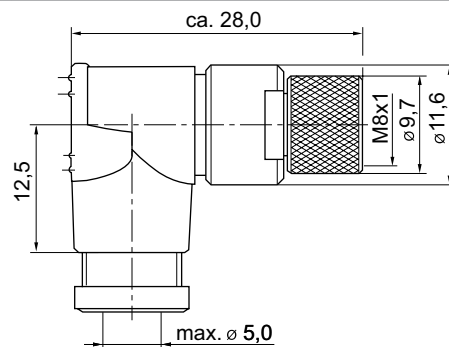
Technical Remarks

- The specified protection class is only valid in assembled and tested state.

	Operational voltage	Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	number of plug options 1	Part No.
	AC						
	[V]	[A]			[mm]		
	48	4	3	angled 90°	3.5 / 5	1 position	1834484174

Part No.	Housing color	Weight
		[kg]
1834484174	Black	0.008

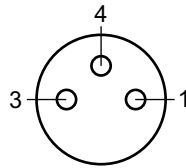
Dimensions



15832

Series KHZ
Accessories

Pin assignment



Buchse_3-polig

Series KHZ Accessories

Silencers, Series SI1 ▶ Sintered bronze



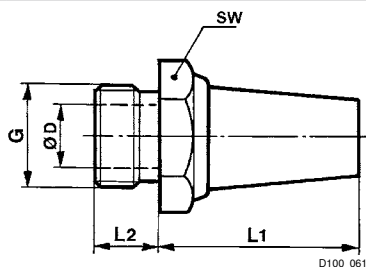
P100_060

Working pressure min./max. 0 bar / 10 bar
 Ambient temperature min./max. -25°C / +80°C
 Medium Compressed air

Materials:
 Silencers Sintered bronze
 Thread Brass

Compressed air connection	Sound pressure level	Qn	Order quantity	Weight	Part No.
	[dB]	[l/min]	[piece]	[kg]	
M5	72	460	10	0.004	1827000006
G 1/8	75	1500	10	0.01	1827000000
G 1/4	79	2900	10	0.02	1827000001

Dimensions



D100_061

Part No.	Port G	SW	Ø D	L1	L2							
1827000006	M5	7	2.5	15	5							
1827000000	G 1/8	13	6	18	6							
1827000001	G 1/4	17	8.5	25	8							

Sound pressure level measured at 6 bar at 1 m distance

Piston rod cylinders ▶ Short-stroke and compact cylinders

Series KHZ Accessories

Silencers, Series SI1 ▶ Sintered bronze



P100_037

Working pressure min./max.
Ambient temperature min./max.
Medium

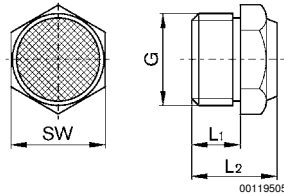
0 bar / 10 bar
-25°C / +80°C
Compressed air

Materials:
Silencers
Thread

Sintered bronze
Brass

Compressed air connection	Sound pressure level	Qn	Order quantity	Weight	Part No.
	[dB]	[l/min]	[piece]	[kg]	
M5	79	280	10	0.005	1827000032
G 1/8	85	640	10	0.001	1827000031
G 1/4	88	900	10	0.01	1827000033

Dimensions



00119505

Part No.	Port G	L1	L2	SW								
1827000032	M5	5	10.3	7								
1827000031	G 1/8	6	11.5	13								
1827000033	G 1/4	8	13.5	17								

Sound pressure level measured at 6 bar at 1 m distance

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27-04-2017

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