

# Counters, Printers, Preset Counters

Bulletin SS01100 Issue/Rev. 0.3 (10/17)

## Smith Meter® PD Meter Accessories



High Capacity and Large Numeral Counters  
Model 600 and 900 Series



Non-Reset Counters Model 200A Series



Counter/Printers with Self-Closing Weatherproof Cover  
Model 2600 and 6600 Series



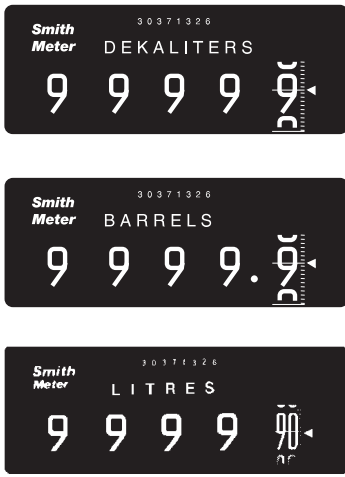
Preset Counters Model 340C and 350C

## Counters

### Large Numeral Counters

Features large, easy-to-read, five-digit 600 Series or six-digit 900 Series reset counter numerals, with fine graduations on right-hand wheel for an additional digit of resolution. An eight-digit, non-reset totalizer is standard on all models.

Model	Right Hand Wheel
620	Units and Tenths
620-1	Tenths and Hundredths
660	Tens and Units



### High Capacity Large Numeral Counters

The High Capacity 900 Series Counters are also available in: Units and Tenths (920), Tenths and Hundredths (920-1).



Model	Right Hand Wheel
920	Units and Tenths

**Pulse Transmitters** – Low resolution - 1 or 10 pulses<sup>1</sup>, high resolution - 50 or 100 pulses<sup>1</sup>.

**Swivel Adapter** – Allows rotation of the register for easy readability.

### Right Hand Counter Wheels (Actual Size)



Model 620  
(920)

Model 660  
(960)

### Available Units of Registration

- Barrels
- Gallons
- Imperial Gallons
- Liters
- Dekaliters
- Hektoliters
- Cubic Metres
- Pounds
- Tons

### Horizontal Non-reset Counters

**Model 200A Series Counters** have eight non-resettable numeral wheels plus a fine graduated disc for an additional digit of resolution. Available units of registration same as for 600 Series Counters above.

**Model SM-200A Counters** are the same as the Model 200A Counters except they are equipped with an explosion-proof, switch-type pulse transmitter.



Non-Reset Counter Model 200A

<sup>1</sup> Per revolution of LNC right hand wheel.

## Printers

The accurately-recorded printer ticket takes the “guesswork” out of liquid transfers. The tamper-proof system seals the ticket into the meter register printer while transfer is being made and also seals out dirt and weather. The ticket is mechanically printed before it can be removed from the printer. Errors, doubts, and disputes are eliminated, and the customer receives a meter register printed receipt.

## Options and Accessories

- **High Capacity Accumulative Ticket Printer (Series 3900)** features 8 print wheels instead of 7 print wheels, as on a 2600 accumulative printer.
- **Tray-Actuated Microswitch.** Switch activates with or without ticket in tray.
- **Long Ticket Features.** Permits multiple transactions on one ticket.
- **Custom Suffix Identifier.** Single, double, or triple character.
- **Printer Modified to Meet EEC Requirements.**  
Unit Symbol: l, m<sup>3</sup>, kg, t.  
Fixed Zero: for high speed litre registration.  
Comma: for decimal position.

## Accumulative System Ticket (Series 2600)

**Ticket is automatically sealed into printer.** Tamper-proof ticket cannot be removed without marring until the final reading is printed. Accommodates the most popular size ticket - 4-1/8" wide by 7-3/4" long (104.78 mm x 196.85 mm). Also handles ticket sizes up to 5" wide (127 mm). Movable guides and an adjustable ticket stop make it easy to locate the printing position on the ticket.

**Consecutive three-digit transaction (or printout) serial number** advances one digit when Finish Print occurs. Any missing ticket is immediately detected by discontinuity of number sequence.

**Two-Wheel manually (internal) selectable location identifier** (not available on European versions) in alpha characters A, B, D, E, F, G, J, K, P, or R.

**Accumulative system assures complete accountability of production.** Start Print recording is same seven-digit number printed as Finish Print number for previous transaction. Finish Print is recorded above Start Print. Delivery or process output is obtained by subtracting Start Print from Finish Print (552.1 for ticket shown).

## Zero Start System Ticket (Series 6600)

Zero Start System includes all features of Accumulative System except that delivery is recorded and printed in six-digit (five-digit on European versions) number instead of seven and Start Print is all zeros. No subtraction is required because Finish Print number is the actual volume delivered.

Diagram illustrating the layout and dimensions of the Accumulative System Ticket (Series 2600). The ticket is 4.1" (104 mm) wide and 7.8" (198 mm) high. Key dimensions and features are labeled:

- Overall width: 4.1" (104 mm)
- Overall height: 7.8" (198 mm)
- Section height (top): 4.6" (117 mm)
- Section height (middle): 3.4" (86 mm)
- Section height (bottom): .8" (20 mm)
- Section width (left): 1.6" (41 mm)
- Section width (right): .4" (10 mm)

The ticket layout includes the following fields and information:

- Sold to: \_\_\_\_\_ Date: \_\_\_\_\_ 19 \_\_\_\_
- Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- PHONE NO: \_\_\_\_\_ TRUCK NO: \_\_\_\_\_
- TIME: \_\_\_\_\_ A.M. \_\_\_\_\_ P.M. \_\_\_\_\_ PAID: \_\_\_\_\_ CHARGE: \_\_\_\_\_
- DISTRIBUTOR/SALESMAN: \_\_\_\_\_ \$ \_\_\_\_\_
- DELIVERY RECEIVED: \_\_\_\_\_ CUSTOMER'S SIGNATURE: \_\_\_\_\_
- PREVIOUS SALES NO: AA 086 END DELIVERY: 5148591 MTHS: 1
- AA 085 543070
- GALLONS DELIVERED: \_\_\_\_\_ PRODUCT: \_\_\_\_\_ GALLONS: \_\_\_\_\_ PRICE: \_\_\_\_\_ AMOUNT: \_\_\_\_\_
- TAX: \_\_\_\_\_ TOTAL: \_\_\_\_\_
- INSERT FACE DOWN THIS END FIRST

A circular seal with the text "SEALS SEALED IN" is visible on the ticket.

## Preset Counters

### 300C Series Preset Counters

The Smith Meter Model 300C Series Preset Counters are four-digit (340C) or five-digit (350C), two-stage, preset (down) counters designed for mounting directly under a Model 600 Series Counter on all Smith Meter PD meters. They are used with appropriate accessories to either mechanically or electrically trigger two-stage valve closure to control precise, shock-free delivery of a preset quantity of liquid. The signal to initiate first stage valve shut-down is field-adjustable from 3 to 9, 10 to 90, or 100 to 900 right-hand wheel units. The final stage shut-down signal, just prior to zero, is easily field-adjusted on start-up to assure precise delivery of the preset quantity.

### Counter Accessories

- **Four SPDT Microswitch and Control Handle Kit.** For electric two-stage set stop valve control.
- **Two SPDT Microswitch Kit.** For pump control on mechanical set stop valve systems.
- **Linkage Adapter.** For use with mechanical set stop valves.



Preset Counter Model 340C

## Counter, Printer, and Preset Counter Accessories



350C Series Preset with Large Numeral Counter (LNC), Explosion-proof Microswitch and Ticket Printer.



340C Series Preset with Cover Plate

## Specifications

### General

**Speed:** 250 rpm of right-hand register wheel.

**Torque:** Average running torque with a 300C Preset/600 or 900 LNC/TP Package is 6 oz-in (4 N•cm) at room temperature with 1:1 gear plate. Momentary peak not to exceed 40 oz-in (28 N•cm) during valve shut-off with maximum 60 lb (27.2 kg) valve load.

**Operating Temperature Range:** -40°F to 160°F (-40°C to 71°C).

**Rated Life (Under normal operating conditions):** 50,000 reset cycles or 25,000,000 revolutions of right hand wheel, whichever comes first.

Size of Figures	
600 and 900 Series Counters	Reset Totalizer (600 Series): 0.750" high, 0.400" wide (19.05, 10.16 mm)
	Reset Totalizer (900 Series): 0.625" high, 0.300" wide (15.87, 7.62 mm)
	Accumulative Totalizer: 0.125" high, 0.078" wide (3.18, 1.98 mm)
200A Series Counters	0.328" high, 0.188" wide (8.33, 4.76 mm)
300C Series Preset	0.500" high, 0.370" wide (12.7, 9.40 mm)
Zero Start and Accumulative Printer	0.156" high, 0.085" wide (3.86, 2.16 mm)

### Model LNC Low Resolution Pulse Transmitter

**Reference:** Specifications Bulletin [SS01045](#).

Adapts to 600 and 900 Series LNC Counters to provide 1 or 10 pulses per revolution of LNC right-hand wheel.

UL Listed and CSA Certified for use in Class I, Groups C and D hazardous locations.

CENELEC Certified for EExd IIA T6.

### Model HR-LNC High Resolution Pulse Transmitter

**Reference:** Specifications Bulletin [SS01046](#).

Adapts to 600 and 900 Series LNC Counters to provide 50 or 100 pulses per revolution of LNC right-hand wheel. Requires 10 to 15 Vdc input power.

UL Listed for use in Class I, Groups C and D hazardous locations.

CENELEC Certified for EExd IIA T6.

### SM-200A Stack Monitor

(Available only on 200 Series Counters)

Reference: Specifications Bulletin [SS01042](#).

Provides a pulse per revolution of the first wheel from the right side.

UL Listed and CSA Certified for use in Class I, Groups A, B, C, and D, Division 1 hazardous locations.

### Tray Actuated Microswitch

Single Pole, Single Throw (SPST) switch with capacity of 115 Vac or 230 Vac, 50/60 Hz at 15A; 125 Vdc at 1/2A; 250 Vdc at 1/4A.

UL Listed and CSA Certified for use in Class I, Group C, Division 1 hazardous locations.


CENELEC Certified for EExd IIA T6.

### Explosion Proof Switch Packages for Preset Counter

**North American** - UL/CSA Explosion Proof Switch Package for Preset Counter UL Listed and CSA Certified for use in a Class I, Division 1, Group D hazardous locations.

Hydraulic valve and pump control: 4 Single Pole Double throw (4 SPDT).

Each SPDT switch is rated for 115/250 Vac, at 15A; 125 Vdc at 0.5A, 250 Vdc at 0.25A.

**European** - CENELEC (ATEX) Certified  II 2 G EEx d IIC T6, hazardous locations. Certificate: PTB 02 ATEX 1031 X.

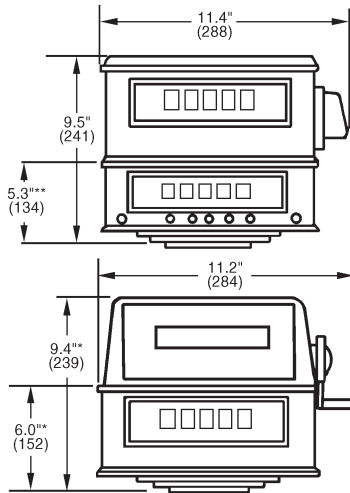
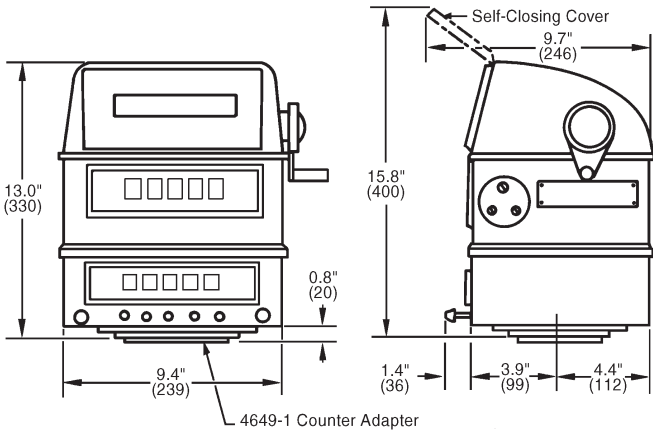
Hydraulic valve and pump control: 4 Single Pole Double throw (4 SPDT).

Each SPDT switch is rated for 250 Vac Max at 7A; 250 Vdc Max at 0.8 A.

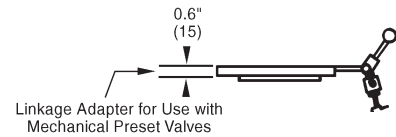
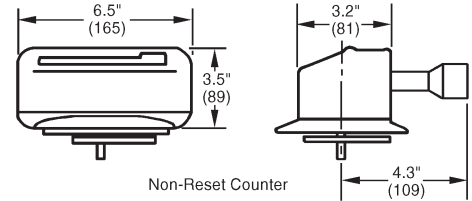
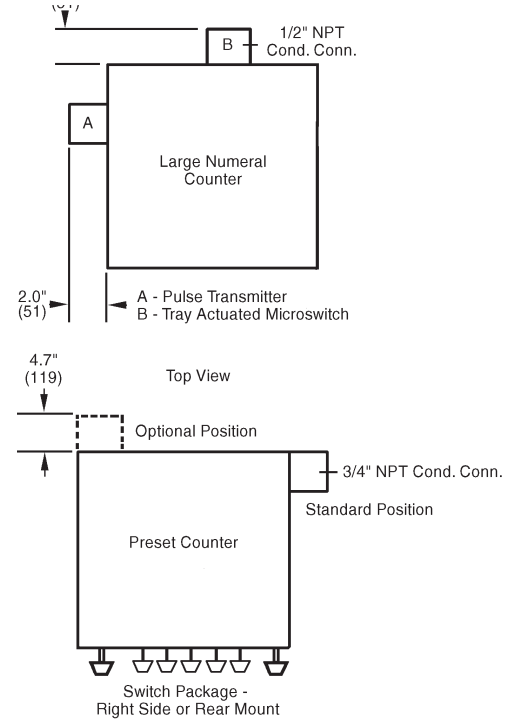
# Dimensions

## Inches (Millimeters)

**Note:** Dimensions – inches to the nearest tenth (millimeters to the nearest whole mm), each independently dimensioned from respective engineering drawings.



Weights		
	Lbs.	Kg.
200A Series Counters	5	2.2
Large Numeral Counter	15	6.8
Ticket Printer	10	4.5
Preset Counter	11	5.0
Pulse Transmitter	1	0.5
Tray Actuated Microswitch	1	0.5
Preset Switch Package and Control Handle	3	1.4



\*\* Includes cover, stand-alone adapter, and 4649-1 adapter.

\* Includes Cover and 4649-1 adapter.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

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