

7891 register & preset

Product datasheet | 251909 Rev B

251909 Rev."B" 8-103


VEEDER-ROOT
PETROLEUM PRODUCTS

7891 METER REGISTER AND PRESET

MODERN DESIGN . . . For

✓ Greater Control Reliability

✓ Higher Register Speed

. . . In Fluid Flow

Applications of All Kinds



A COMPLETE COUNT AND CONTROL SYSTEM FOR FLUID FLOW DELIVERIES AND TRANSACTIONS

- Fully automatic precision preset control. Shuts off when predetermined quantity is delivered.
- Field adjustable two-stage control knockoff. Final knockoff trims to precise zero for extra accuracy in any application.
- All delivery data displayed on high readability figures.
- Knob reset. Control number can be easily preset with only one hand.
- Latest technology, modern material give maximum dependability at speeds to 250 rpm of the right wheel.
- Built-in precision totalizer accumulates up to 99,999,999 gallons.

DESCRIPTION

Meter Register and Preset combine to control and display high speed fluid deliveries and transactions. Ideal for increased efficiency in all kinds of liquid inventory monitoring and control installations.

The Preset is a manually programmable two-stage product quantity control. It has a positive, nontopping vernier clutch and a positive acting Stop button. After a desired quantity is preset, it counts down to the first knockoff where delivery is slowed. At the second or final knockoff, the preset actuates a valve to stop delivery.

The first stage can be adjusted in the field to actuate at 3, 4, 5, 6, 7, 8, or 9 counts prior to the final knockoff at zero. Or it can be set to actuate at 10, 20, 30, 40, 50, 60, 70, 80, or 90. An eight-position ring type knockoff is standard. Optional electrical knockoff has two positions and one to four single pole, double throw switches.

The Preset consists of 5 figure wheels driven by a shaft that passes through the unit to drive the Register above. It includes three interlocks: entry via the set button, set button remains latched until the valve opens, and the entry is blocked when the valve is open.

Finished in corrosion resistant epoxy for long life, the sturdy diecast housing is designed for all-weather protection.

The Preset base mounts in all locations which normally accept a Veeder-Root Register. The Register fits the top of the Preset housing.

APPLICATIONS

Series 7891 Meter Register and Preset combination provides inventory control and data processing information in

a wide variety of industries. In the petroleum refining and distributions field, it is used to control fluid flow from the well to pipelines and storage centers, then to gasoline and fuel oil delivery trucks. In the chemical processing field, it can be used for inventory and shipping.

GENERAL SPECIFICATIONS

Specifications listed are standard unless otherwise noted. Optional features are available at additional cost.

Speed: 250 rpm of right Register wheel.

Drive Torque: During counting, average running torque at room temperature with a 1:1 ratio gear plate is 7 oz.-in. (4.9 N-cm). During display wheel transfer from all 9's to all 0's, the torque may reach 16 oz. in. (11.3 N-cm). During Preset knockoff - with a maximum valve load of 60 pounds (27.2 kg), a momentary peak of 40 oz.-in. (28.2 N-cm) may be experienced during valve shutoff.

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

Style of Figures: Veeder-Root/Cornell for optimum readability of all primary displays.

Mounting: Eight 1/4-28 tapped holes with steel inserts on 6-5/8" (168.3 mm) diameter. Special adaptors are available to convert nearly all meters to accept this control and register system.

Construction: Cover: cast aluminum. Case and sub-frame: cast Zamak. Wheels, pinions and clutch: acetal resin.

Gearing: 1:1 is standard; 0.2106:1 through 42:1 are available.

Lubrication: Periodic.

Rated Life: 50,000 preset cycles or 25,000,000 revolutions of right wheel, whichever comes first, under normal operating conditions.

7891 register & preset

Product datasheet | 251909 Rev B

PRESET SPECIFICATIONS

Number of Figures: 5 Standard. 4 Optional.

Size of Figures: 0.500" high, 0.267" wide (12.7, 6.8 mm).

Color of Figures: White on black.

Character Configuration: 0 to 9.

Pushbuttons: Seven: Five preset are standard (four optional), one for each wheel. One Set button is on left side, one Stop button on right side.

Set Button: Operable after valve is shut off. Pushes in to lock during presetting of individual wheels. Releases automatically when valve is turned on.

First Stage Shutoff: Adjustable on second wheel with inserts at 10, 20, 30, 40, 50, 60, 70, 80, 90, or 3, 4, 5, 6, 7, 8, or 9 on first wheel.

Final Stage Shutoff: Externally trimmable to any position on right wheel from 0 to 9.

Valve Shutoff Ring: Eight attachment positions.

REGISTER SPECIFICATIONS

Number of Figures: Delivery display: 5. Totalizer: 8.

Size of Figures: Delivery display: 0.750" high, 0.400" wide (19.1, 10.2 mm). Totalizer 0.125" high, 0.078" wide (3.2, 2.0 mm).

Color of Figures: White on black, except black on white right totalizer wheel designating tenths.

Character Configurations: 0 to 9. Models available with tenths indicated by decimal point. Options available.

Reset: Knob.

OPTIONS

Nonresettable Pulser: Series 1871 and 7671 pulse transmitter can be provided with assembled unit for transmitting delivery data to remote locations.

Mounting Adaptors: Nearly any meter can be converted to accept the Series 7891 System.

Other: Gearing options. Explosion proof electric knockoff switch is also available.

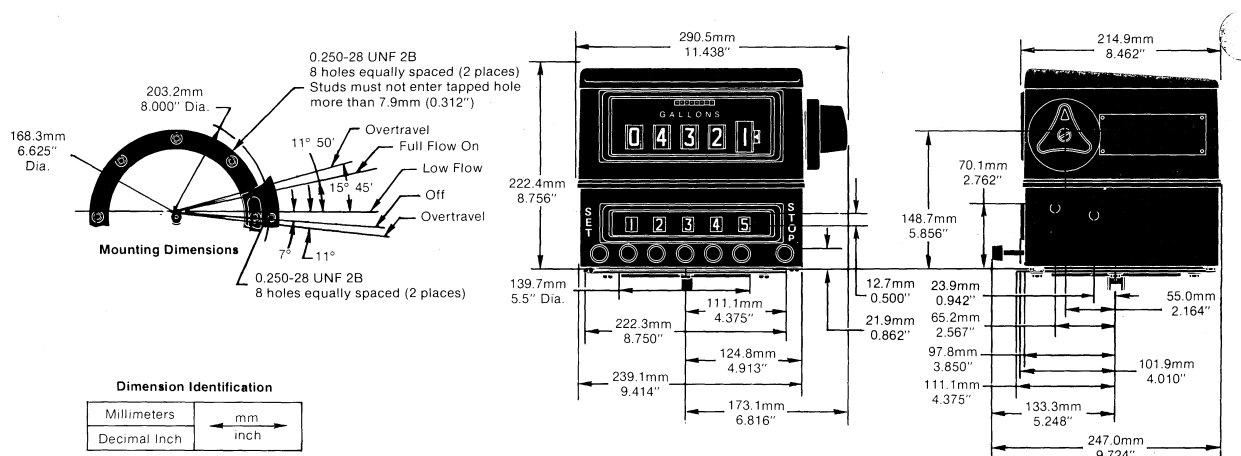
MODELS

Description: Per above Standard Specifications:

Preset and Register: Gallons
 Form Number
 789100-001

WARNING: VEEDER-ROOT METER PRESETS EQUIPPED WITH AN ELECTRICAL KNOCKOFF SWITCH MUST BE USED WITH FAIL-SAFE BACKUP EQUIPMENT TO PREVENT ACCIDENTAL RUNAWAY DELIVERY OF PRODUCT. FAILURE TO PROVIDE BACKUP EQUIPMENT COULD RESULT IN PERSONAL INJURY, PROPERTY LOSS, AND EQUIPMENT DAMAGE.

DIMENSIONS



Information for guidance only. For current specifications and dimensions, or possible modifications, let our engineers assist you.



6th Avenue at Burns Crossing, P.O. Box 1673, Altoona, PA 16603-1673 Phone (814) 695-4476, or (800) 873-3313, Fax (814) 695-7605, or (800) 234-5350
 BRAZIL: Sao Paulo • CANADA: Mississauga, Ontario • ENGLAND: Richmond Surrey • FRANCE: Aulnay-Sous-Bois • GERMANY: Aldingen • SINGAPORE: Singapore

251909 Replaces 11624

VRAS PRINTED IN U.S.A. 99