



# Installation & Parts Manual

## 5-Digit Preset Counter Model D4190

**LIQUID  
CONTROLS**  
A Unit of IDEX Corporation

**IDEX**  
IDEX CORPORATION



Installation: M500-20

[www.lcmeter.com](http://www.lcmeter.com)

# Description

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The preset is manually programmable two-stage product quantity control device. It has a positive, non-topping vernier clutch and a positive acting stop button. After a desired quantity is preset, it counts down to the first knock-off where delivery is slowed. At the second or final knock-off, the preset actuates a valve to stop delivery. Mechanical knock-off is standard; electrical knock-off optional.

## Features

- Fully automatic precision preset control. Shuts off when predetermined quantity is delivered.
- Field adjustable, two-stage control knock-off; final knock-off trims to precise zero for extra accuracy in any application.
- Latest technology, modern materials give maximum dependability at speeds to 250 RPM of the right hand wheel.
- Preset mounts on all Liquid Controls meters, which normally accept a Veeder-Root register; adapter kits are available for factory installation or field retrofit.

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## Operating Specifications

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

- **Speed:** 250 RPM of the right hand wheel.
- **Drive Torque:** During counting, average running torque at room temperature is 10 oz-in. (7.1 N-Cm). During wheel transfer from all 9's to all 0's, the torque may reach 16 oz-in. (11.3 N-Cm). During preset knock-off 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 shut-off.
- **Operating Temperature Range:** -40°F (-40°C) to 160°F (+71°C).
- **Mounting:** Eight 1/4 x 28 tapped holes with steel inserts on 6 5/8" (168.3 mm) diameter.
- **Construction:** Cover-cast aluminum; case and sub-frames-cast zanak; wheel, pinions and clutch-acetal resin.
- **Lubrication:** Periodic.
- **Rated Life:** 50,000 preset cycles of 25,000,000 revolutions of right hand wheel, whichever comes first, under normal operating conditions.

## Optional, Electrical Switch

### Features

Explosion-proof electric knock-off switch, with or without handle (handle used with electrically controlled valves).

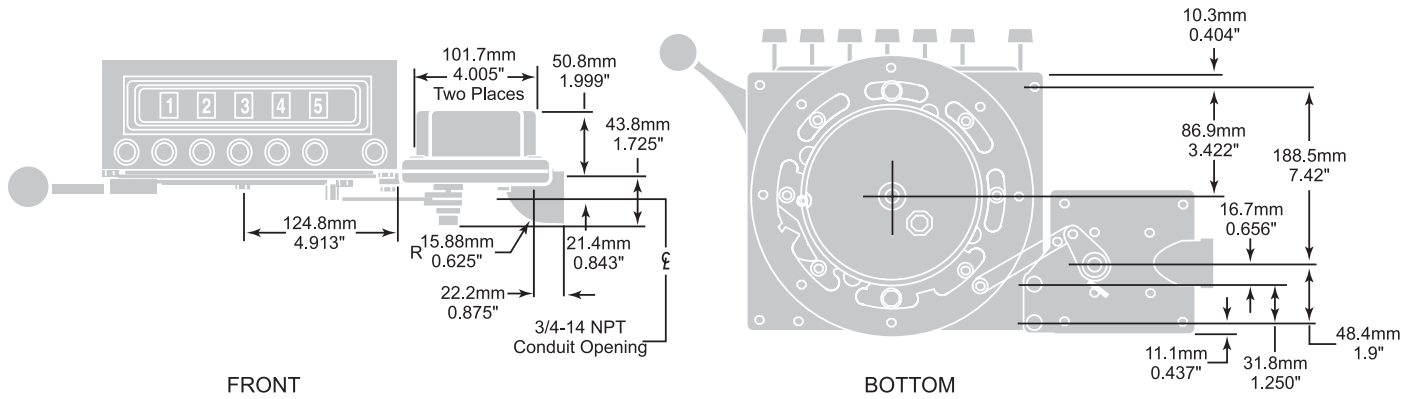
- UL listed and CSA certified for use in hazardous locations, Class 1 Group D.
- Switch assembly can be right or left side mounted.
- Four single pole, double throw switches (15A, 125/250 VAC)  
(½ A, 125 VDC; ¼ A, 250 VDC)

### INSTALLATION AND LINKAGE HARDWARE KITS

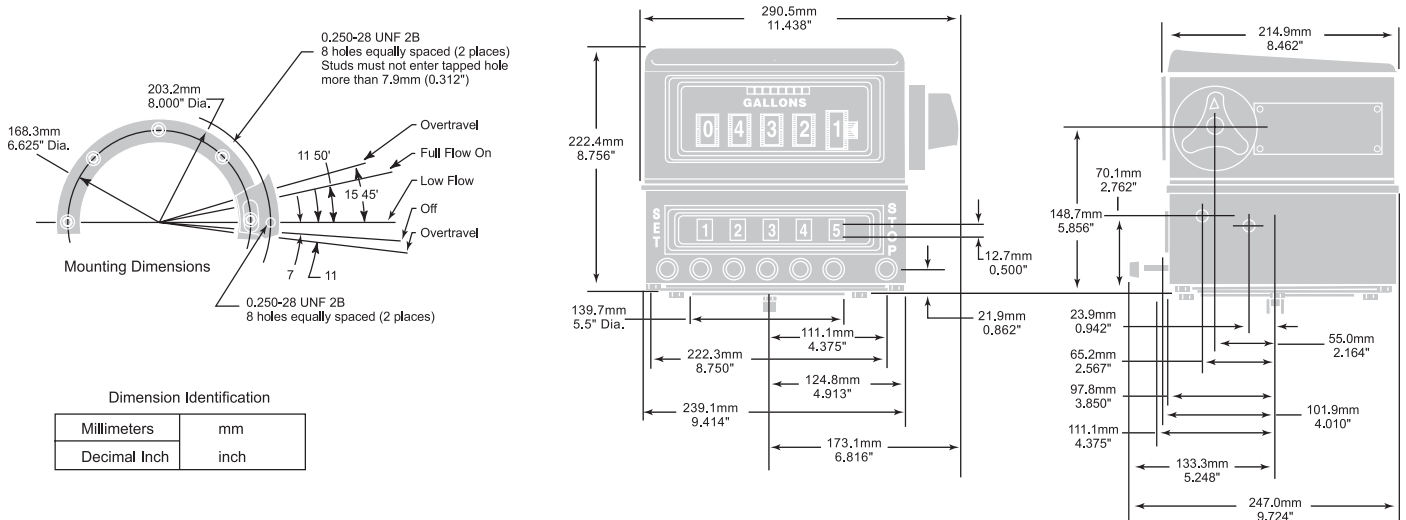
1. Misc. hardware kit required for factory installation or field retrofit P/N 48420
2. Linkage for M-5 or M-7 using D-4190 Preset and V-7 Valve (less valve handle) P/N 48315
3. Linkage for M-15 using D-4190 Preset and V-15 Valve (less valve handle) P/N 48316
4. Linkage for M-30 using D-4190 Preset and V-30 Valve (less valve handle) P/N 48446

- **Number of Figures:** Five (5).
- **Size of Figures:** 0.500" high, 0.267" side (12.7, 6.8 mm).
- **Color of Figures:** White on black.
- **Character Configuration:** 0 to 9.
- **Push Buttons:** Five (5) preset, one for each wheel, Plus one (1) set button left side and one (1) stop button on right side.
- **Set Button:** Operable after valve is shut off. Pushes in to lock during presetting of individual wheels; releases automatically by valve shut-off ring.
- **First Stage Shut-Off:** Adjustable on second wheel with inserts at 10, 20, 30, 40, 50, 60, 70, 80, 90 and 3, 4, 5, 6, 7, 8, or 9 on first wheel.
- **Final Stage Shut-Off:** Externally trimmable to any position on right hand wheel from 0 to 9.
- **Valve Shut-Off Ring:** Eight (8) attachment positions.

## Preset Counter Dimensions

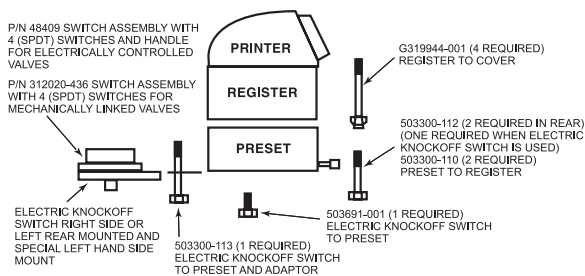


## Preset Counter with Register Dimensions

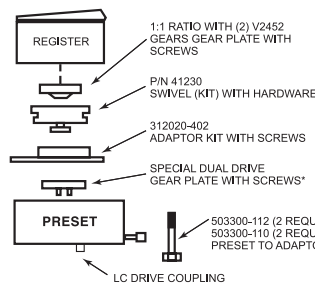


## Ordering Information

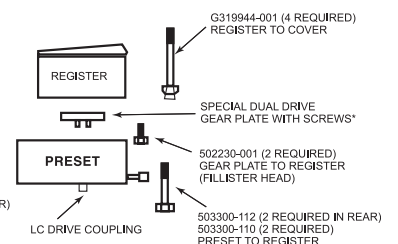
### Electrical Switch Kits



### Swivel Kit



### Standard Mounting Kit



\* NOTE: Specify meter model and unit of measure desired or select long shaft preset gear plate from LC publication 104B.



**Backed by our Worldwide reputation for  
Quality, Accuracy and Advanced Design.**



**LIQUID CONTROLS**

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