

# spirax/sarco®

## Digital Cycle Counter

The monitoring of condensate return pump operation is an important activity for plant operations and maintenance personnel.

The use of pressure powered pumps equipped with a digital cycle counter provides the ability to monitor pump operation, schedule preventative maintenance and estimate the amount of condensate recovered.

**Note: Operation of the counter requires the pump exhaust be vented to the atmosphere.**

| Specifications   |   |
|------------------|---|
| <b>Enclosure</b> | NEMA 1, 3R, 4, 12<br>IP 65 (watertight)   |
| <b>Counter</b>   | 6 Digit LCD display – NEMA 4 Resettable<br>(see instructions on back)   |
| <b>Sensor</b>    | All Stainless Steel components  |
| <b>Options</b>   | Auxillary set of SPST<br>dry contacts for connection to<br>Building Energy Management System.<br>Contact ratings:<br>5 amp resistive 110/250VAC<br>3 amp inductive 28 VDC |

### Construction Materials

| No. | Part      | Material        |
|-----|-----------|-----------------|
| 1   | Enclosure | Aluminum        |
| 2   | Gasket    | Neoprene        |
| 3   | Sensor    | Stainless Steel |
| 4   | Counter   | Aluminum        |

### Limiting Operating Conditions

#### Operating Temperature Range

Counter: 32 to 122°F 0 to 50°C

Sensor: -65 to 280°F -55 to 137°C

#### Maximum Sensor Pressure

PMO: 300 psig/21 barg

#### Minimum Back Pressure

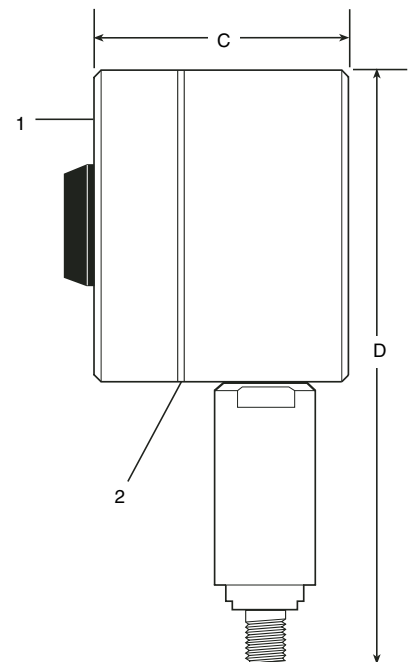
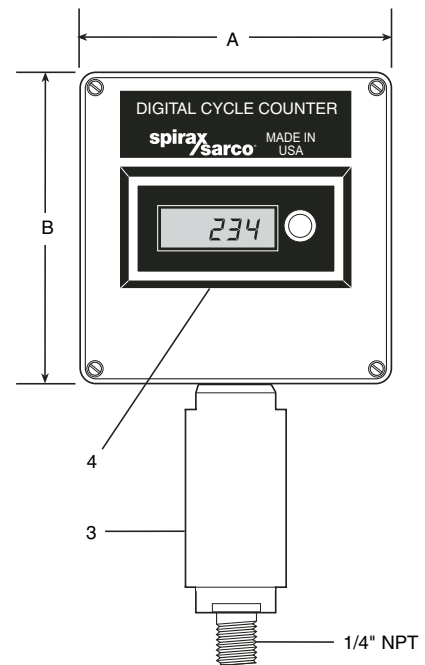
15 psig/1 barg

### Pump Capacities

| Model    | Approximate Gallons/Cycle |
|----------|---------------------------|
| PPEC     | 4.0                       |
| PPC      | 7.1                       |
| PPF      | 8.4                       |
| 4" PPF-P | 128                       |

### Dimensions (nominal) in inches and millimeters

| A    | B    | C    | D    | Weight |
|------|------|------|------|--------|
| 3.15 | 3.15 | 2.37 | 6.37 | 1.6 lb |
| 80   | 80   | 60   | 60   | 0.7kg  |



Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.

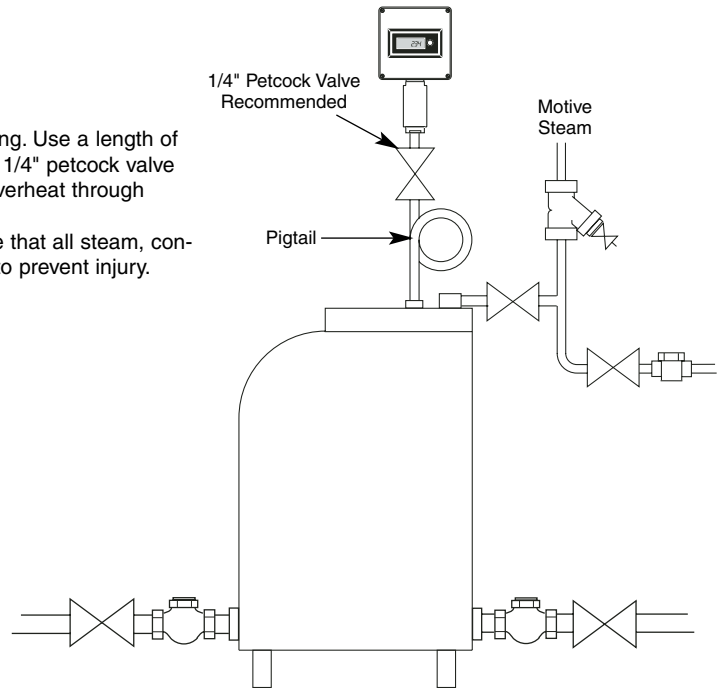
TI-5-227-US 09.99

# Digital Cycle Counter

## Installation

Mount the counter in a vertical position at a level convenient for reading. Use a length of pipe to elevate the counter as necessary. We recommend installing a 1/4" petcock valve for ease of servicing. The supplied pigtail protects the counter from overheat through direct contact with steam.

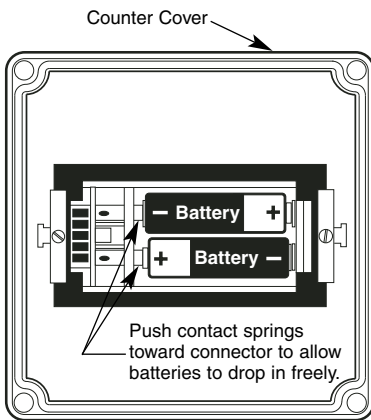
**Caution:** Before installation or any maintenance is performed, ensure that all steam, condensate, air or gas lines are closed and internal pressure is relieved to prevent injury.



## Connection Size and Location

| Pump Model  | Connection Size & Location                   |
|-------------|--|
| All PPC/PPF | 1/2" NPT Pump on cover                       |
| PPEC        | Special 1/2" NPT on top of pump body or 3/8" |
| NPT*        | (Gauge glass connection)                     |
| PPF-P       | 3/8" NPT* on Intermediate casing             |

\* These will require a pipe nipple, reducer bushing and a 90° elbow, all supplied by customer.



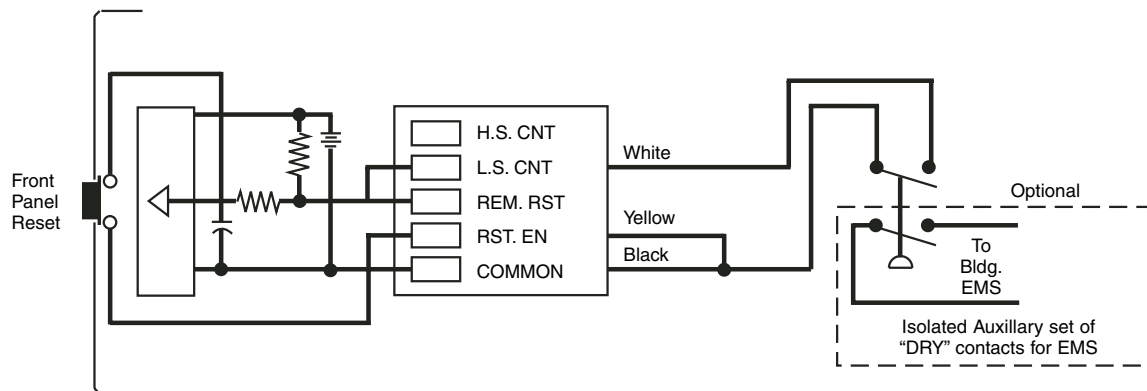
## Battery Replacement

To replace the batteries in the counter, first remove the cover of the enclosure (see caution note above before servicing). Slide battery cover to the left until the right hand lip disengages. To reinstall battery cover insert left hand lips into case first, push cover to the left until right hand lip drops down and cover snaps back into place. Install batteries as shown, observing proper polarity. Recommended batteries are (quantity 2) "N" alkaline type.

**Note:** Push battery spring clips to the left toward connector, to completely free the batteries when removing or installing batteries.

## Counter Reset

The unit is supplied with the front panel reset button deactivated. To activate, connect the Yellow wire from the RST. EN (Reset Enable) input to the Common, as shown below. To deactivate, remove the Yellow wire from the RST. EN input.



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