

# PCM I

Pump Cycle Monitor

# EOM

Engineering  
Operation &  
Maintenance



The power behind your process



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est. 1979

Unit 16, Upminster Trading Park, Wauley St, Upminster, Essex, RM14 3PL, ENGLAND

# WILDEN®

A DOVER COMPANY



## CAUTIONS READ FIRST

**CAUTION:** Before any maintenance or repair is attempted, the compressed air line to the pump should be disconnected and all air pressure allowed to bleed from pump.

**WARNING:** Do not recharge, disassemble, crush or expose lithium power cell above 100° C (212° F).

**CAUTION:** When removing the end cap using compressed air, the air valve end cap may come out with considerable force. Hand protection such as a padded glove or rag should be used to capture the end cap.

**CAUTION:** Use caution when mounting the PCMI enclosure in areas where wash down occurs.

**NOTE:** The PCMI is for use with Wilden sensor and embedded air valve spool magnet ONLY.

**CAUTION:** When adding a remote resetting switch, ensure that 24 gauge wire or larger is used and that the remote switch is mounted within 250 feet of the PCMI.

**CAUTION:** The PCMI enclosure must be mounted within 250 feet of the pump to ensure proper operation.

**CAUTION:** Penetrating the PCMI enclosure for mounting purposes or to install additional wiring will negate the NEMA 4X enclosure rating.

## INSTALLATION

The PCMI is designed for use with Wilden Pro-Flo® and Pro-Flo V™ pump models. The PCMI unit can be purchased as a factory installed option in the Wilden Pro-Flo® or Pro-Flo V™ pump or as an accessory to be installed in existing Wilden Pro-Flo® or Pro-Flo V™ pumps.

If this system is purchased with a Wilden Pump, an air valve fitted with a sensor will already be attached to your pump. When purchased separately, you will have to remove the existing air valve and attach the new air valve, which is equipped with a sensor.

To mount the PCMI enclosure, simply remove the front cover and insert a screw into the mounting holes located in each corner of the enclosure. Use caution when mounting the module in a wash-down area to minimize exposure to moisture. Proper care should be taken not to penetrate the PCMI enclosure, as this will invalidate the NEMA 4X rating.

To connect the sensor wires to PCMI module, secure wires to wire terminals 1 (COM) and 4 (LS) at the back of the LCD display. The wiring can be extended up to 250 feet for ease of installation.

To enable the front panel reset button, simply connect a wire between terminals 1 (COM) and 3 (RST EN). A momentary switch can be connected to terminals 1 (COM) and 5 (RST) for remote reset.

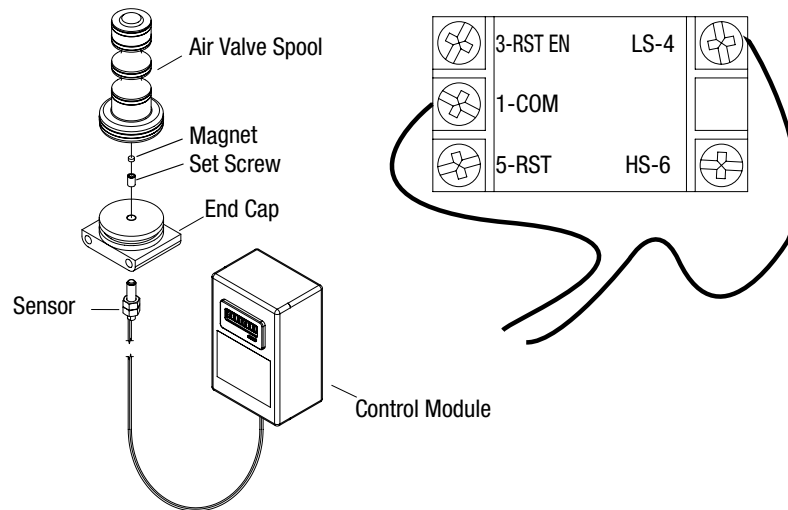
## HOW IT WORKS

The PCMI counts pump cycles by sensing the presence of the Pro-Flo® or Pro-Flo V™ air valve spool. The sensor, located at the air valve end cap, detects the presence of a magnet located at the end of the air valve spool. The PCMI unit registers a complete pump cycle when the spool shifts away from the sensor and subsequently returns to the original position. The counter resets itself to zero automatically after reaching 100 million cycles. The PCMI has a reset switch located on the face of the PCMI module that can be activated to allow “on the spot” resetting of the counter or disabled to prevent inadvertent loss of data. The unit also has the ability to be reset from a remote location.

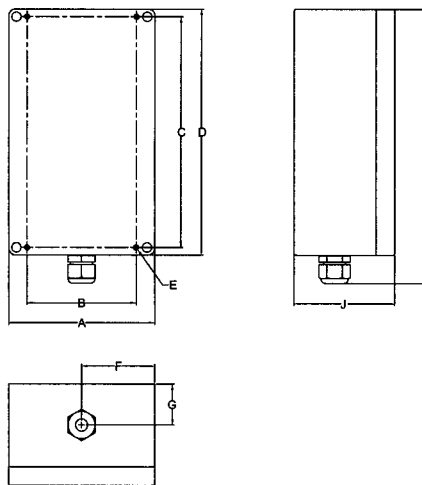
## PARTS LISTING

Part Description	Pump Type	Part No.
Assy, Air Valve, P1/P2, PCMI	P1 & P2	01-2011-13
Assy, Air Valve, P1/P2, PCMI	P1 & P2	01-2011-20
End Cap, P1/P2, PCMI	P1 & P2	01-2333-13
End Cap, P1/P2, PCMI	P1 & P2	01-2333-20
Assy, Air Valve, P4/P8, PCMI	P4 & P8	04-2011-13
Assy, Air Valve, P4/P8, PCMI	P4 & P8	04-2011-20
Assy, Air Valve, PV4/PV15, PCMI	PV4, PV8 & PV15	04-2031-01
End Cap, P4/P8, PCMI	P4 & P8	04-2333-20
End Cap, PV4, PCMI	PV4, PV8 & PV15	04-2343-01
Assy, Air Valve, P15, PCMI	P15	15-2011-20
End Cap, P15, PCMI	P15	15-2333-20
Set Screw, Shcp, 1/4"-20	ALL but P15	99-6340-08
Set Screw, Shcp, 7/16"-14	P15	99-6341-08
PCMI Counter	ALL	99-8150-99
Magnet, Round, Ndfcb, .200	All but P15	99-8320-99
Magnet, Round, Ndfcb, .375	P15	99-8321-99
Sensor W/ 36" Leads	ALL	99-8330-99

# INSTALLATION DRAWING



# DIMENSIONAL DRAWING



DIMENSIONS – PCMI		
ITEM	METRIC (mm)	STANDARD (inch)
A	119	4.68
B	89	3.52
C	188	7.39
D	198	7.80
E	4 dia.	.17 dia.
F	59	2.33
G	34	1.35
H	222	8.75
J	76	3.01

# TROUBLESHOOTING

## ***Pump is running but PMCI is not counting cycles.***

1. Check to make sure that the sensor wiring is secured to the proper wiring terminals to the back of the LCD display on the cover of the module enclosure. The correct wiring terminals are as follows: LS-R and 1-com.
2. Check to ensure that the sensor wiring that connects the sensor to the PMCI module is not cut, broken or damaged.
3. Check to ensure that the magnet located at the top end of the air valve spool is secured to end cap and has not become loose.
4. Check to ensure that pump is operating properly and that no mechanical malfunction has occurred.
5. Check to ensure that discharge pressure is not greater than inlet air pressure and that discharge piping is free from obstructions.
6. Check to ensure that the sensor is not damaged.
7. If necessary, replace lithium power cell. Replace lithium power cell by removing back cover of LCD display unit.

**WARRANTY**

Each and every product manufactured by Wilden Pump and Engineering, LLC is built to meet the highest standards of quality. Every pump is functionally tested to insure integrity of operation.

Wilden Pump and Engineering, LLC warrants that pumps, accessories and parts manufactured or supplied by it to be free from defects in material and workmanship for a period of five (5) years from date of installation or six (6) years from date of manufacture, whichever comes first. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Wilden pumps and parts is beyond our control, we cannot guarantee the suitability of any pump or part for a particular application and Wilden Pump and Engineering, LLC shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application. Responsibility is limited solely to replacement or repair of defective Wilden pumps and parts.

All decisions as to the cause of failure are the sole determination of Wilden Pump and Engineering, LLC.

Prior approval must be obtained from Wilden for return of any items for warranty consideration and must be accompanied by the appropriate MSDS for the product(s) involved. A Return Goods Tag, obtained from an authorized Wilden distributor, must be included with the items which must be shipped freight prepaid.

The foregoing warranty is exclusive and in lieu of all other warranties expressed or implied (whether written or oral) including all implied warranties of merchantability and fitness for any particular purpose. No distributor or other person is authorized to assume any liability or obligation for Wilden Pump and Engineering, LLC other than expressly provided herein.

**PLEASE PRINT OR TYPE AND FAX TO WILDEN**

PUMP INFORMATION			
Item # _____		Serial # _____	
Company Where Purchased _____			
YOUR INFORMATION			
Company Name _____			
Industry _____			
Name _____		Title _____	
Street Address _____			
City _____	State _____	Postal Code _____	Country _____
Telephone _____	Fax _____	E-mail _____	Web Address _____
Number of pumps in facility? _____		Number of Wilden pumps? _____	
Types of pumps in facility (check all that apply): <input type="checkbox"/> Diaphragm <input type="checkbox"/> Centrifugal <input type="checkbox"/> Gear <input type="checkbox"/> Submersible <input type="checkbox"/> Lobe			
<input type="checkbox"/> Other _____			
Media being pumped? _____			
How did you hear of Wilden Pump? <input type="checkbox"/> Trade Journal <input type="checkbox"/> Trade Show <input type="checkbox"/> Internet/E-mail <input type="checkbox"/> Distributor			
<input type="checkbox"/> Other _____			

**ONCE COMPLETE, FAX TO (909) 783-3440**

NOTE: WARRANTY VOID IF PAGE IS NOT FAXED TO WILDEN

WILDEN PUMP & ENGINEERING, LLC