

# Pulsation Dampener



## PD8100 Series

- Used On Controllers, Instruments and Recorders to Dampen Pressure Pulsation
- Eliminate Gage Pointer Flutter
- Aids In Providing More Accurate Pressure Indication
- Decreases Wear On Gage's Geared Movement

**NOT INTENDED FOR USE AS A SHUTOFF VALVE**

### Description

The PD8100 Series eliminates pointer flutter on pressure indicating SWICHGAGE® devices which are subject to pulsating pressure from reciprocating pumps or compressors. It also allows a close setting of high and low contact points providing for more accurate pressure indication and control of equipment.

The PD8100 Series decreases wear on geared movements and increases the life of pressure indicating instruments by eliminating excessive gage strain and unnecessary movement.

A necessity which quickly pays for itself by protecting any pressure indicating and control instrument which is subject to pulsation.

**PD8100 SERIES NOT FOR USE ON OXYGEN OR LIQUID OXYGEN APPLICATIONS.**

Quality built with a large diameter valve stem wheel for ease of adjustment with clearly printed operating instructions. Machined from 1-3/8 in. (35 mm) hex bar stock. A two degree taper on valve and stem assure positive dampening.

Available in brass, carbon steel, 303 stainless steel or 316 stainless steel to meet pressure and environmental requirements with either 1/2 NPT or 1/4 NPT inlet connections.

### Specifications

See "How to Order" section for available inlet and outlet connections.

**PD8183:** All wetted parts are Brass. Rated to 3,000 psi (20.68 MPa) [206.80 bar].

**PD8184:** All wetted parts are Carbon steel. Rated to 5,000 psi (34.47 MPa) [344.70 bar].

**PD8185:** All wetted parts are 303 stainless steel. Rated to 10,000 psi (68.95 MPa) [689.50 bar].

**PD8190:** All wetted parts are 316 stainless steel. Rated to 10,000 psi (68.95 MPa) [689.50 bar]. Meets NACE standard MR-01-75 for direct exposure to H<sub>2</sub>S.

**Operating Temperature:**  
-15 to 400°F (-26 to 204°C)

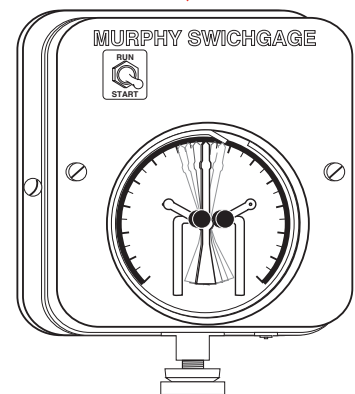
**Shipping Weight (all models):**  
2 lbs.(0.9 kgs.)

**Shipping Dimensions (all models):**  
4-3/4 x 4-3/4 x 3-1/4 in. (121 x 121 x 83 mm)

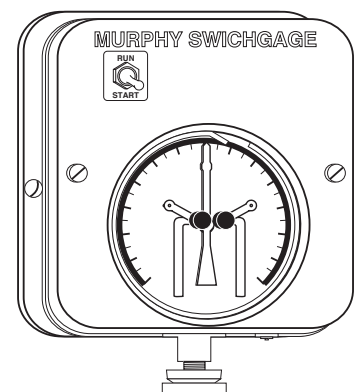
### Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to [www.fwmurphy.com/support/warranty.htm](http://www.fwmurphy.com/support/warranty.htm)

Eliminate pointer flutter like this.



Make SWICHGAGE® instruments and recorders operate like this.



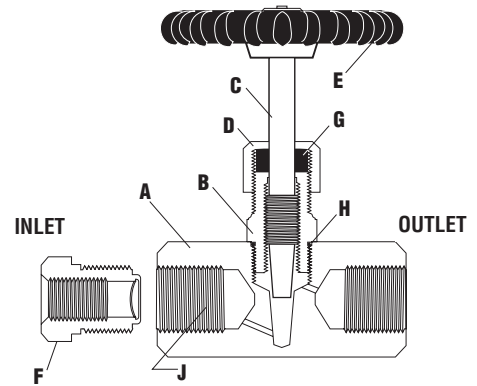
## Service Parts

DESCRIPTION (see drawing—right)	PD8183	PD8184	PD8185	PD8190
A. 1/2 NPT inlet x 1/4 NPT outlet*	65-05-0104	65-05-0210	65-05-0204	65-05-1136
1/2 NPT inlet x 1/2 NPT outlet*	65-05-0105	65-05-0212	65-05-0206	65-05-1135
B. Bonnet Fitting	65-05-0099	65-05-0209	65-05-0203	65-05-1139
C. Valve Stem	65-05-0175	65-05-0208	65-05-0202	65-05-1140
D. Packing Nut	65-05-0098	65-05-0211	65-05-0205	65-05-1137
E. Hand Wheel (with 10-32 nut)	55-00-0179	55-00-0179	55-00-0179	55-00-0179
F. Strainer Bushing Assembly†	55-00-0174	55-00-0173	55-00-0175	55-00-0206
G. Molded Packing Gland	00-00-0936	00-00-0936	00-00-0936	00-00-0936
H. 'O' Ring Bonnet Seal	00-00-0302	00-00-0302	00-00-0302	00-00-0302
J. Stainless Steel Mesh Filter**	65-05-0214	65-05-0214	65-05-0214	65-05-0214

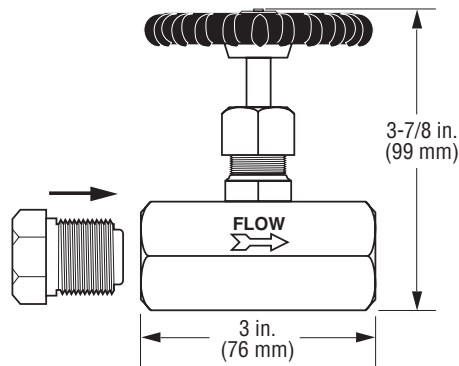
†Provided only for units with 1/4 NPT inlet.

\*For 1/4 NPT inlet use with strainer bushing assembly.

\*\*Provided in units with 1/2 NPT inlet.



## Dimensions

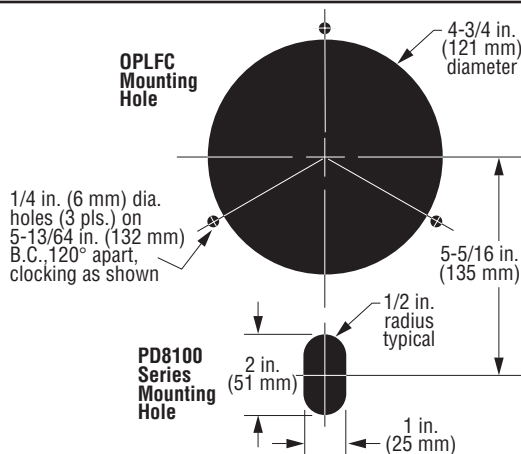


### Mounting for the OPLFC Pressure SWITCHGAGE® and PD8100 Series

The PD8100 Series pulsation dampener is mounted directly below the OPLFC.



**Precautions:** Dope or use teflon tape on connection threads. Do not block the inlet orifice.



## How to Order

PD8185 - 1/4 x 1/4

**Base Model**  
 PD8183  
 PD8184  
 PD8185  
 PD8190

### Connection Size

1/4 x 1/4 = 1/4 NPT inlet x 1/4 NPT outlet  
 1/4 x 1/2 = 1/4 NPT inlet x 1/2 NPT outlet  
 1/2 x 1/2 = 1/2 NPT inlet x 1/2 NPT outlet  
 1/2 x 1/4 = 1/2 NPT inlet x 1/4 NPT outlet

Shown at right, is a typical MURPHYMATIC® compressor panel featuring three Pulsation Dampeners and Murphy's OPLFC gages.

The PD's are recommended for use on piston pumps and compressors to eliminate pointer contact flutter and gage wear.



# MURPHY

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