

# Pulsation Dampener

PD-95145B  
Revised 05-02  
Catalog Section 55  
(00-02-0125)

**FWMurphy**



## 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 SWITCHGAGE® 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)

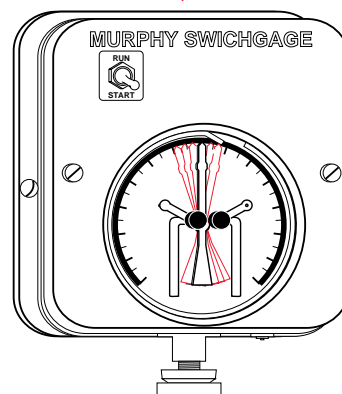
**Shipping Weight (all models):**  
2 lbs.(0.9 kgs.)

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

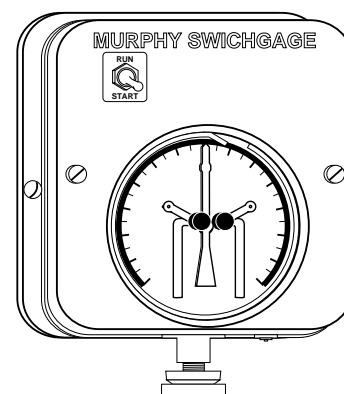
### Warranty

A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

**Eliminate pointer flutter like this.**



**Make SWITCHGAGE® instruments and recorders operate like this.**



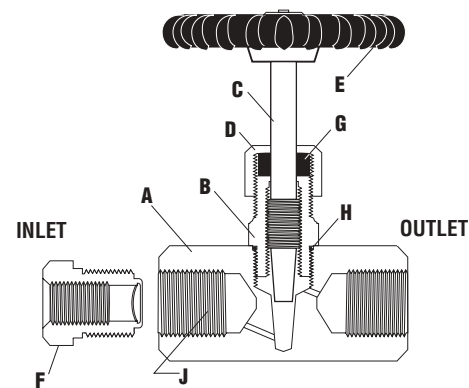
## Service Parts

| 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 |

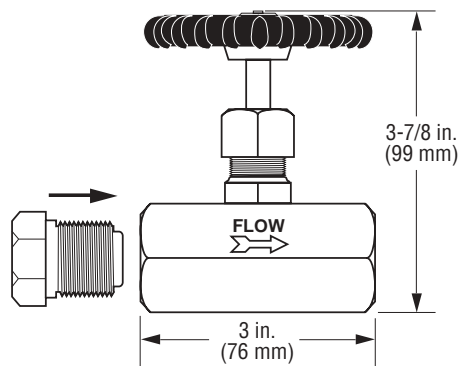
†Provided only for units with 1/4 NPT inlet.

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

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



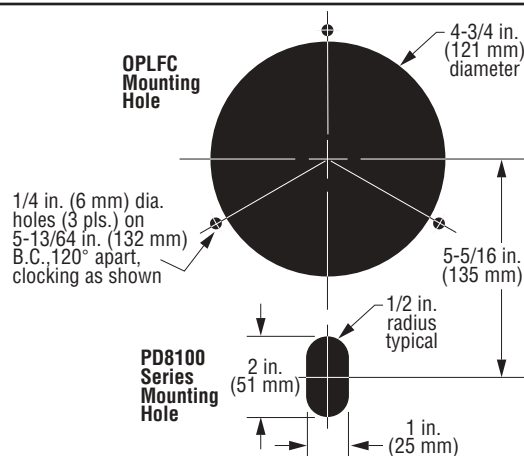
## Dimensions



**Mounting for the OPLFC Pressure SWITCHGAGE® and PD8100 Series**  
The PD8100 Series pulsation dampener is mounted directly below the OPLFC.



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



## How to Order

**PD8185 - 01/4 x 1/4**

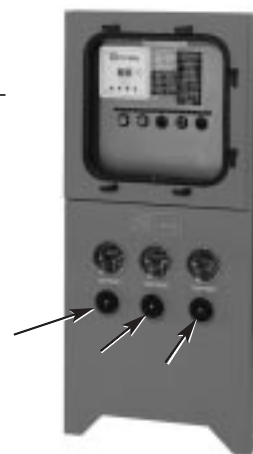
**Base Model**  
PD8183  
PD8184  
PD8185  
PD8190

### 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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