

Exd Pressure Switch

Stainless Steel Enclosure for Harsh Environments

Model PS-RV

The PS-RV is an adjustable Pressure Switch for use with BERMAD Deluge and control valves, to indicate a pre-determined pressure level.

This Pressure Switch offers reliability, repeatability and durability in a compact design. It is suited for operation under the harsh conditions of Zone 1, II 2 G/D Ex d IIC T6 certified for hazardous locations and SIL 2 safety related systems.

At the heart of the PS-RV is a snap action Diaphragm assembly, which transfers pressure derived motion to one SPDT (Single- Pole Double-Throw) micro-switch.

Suitable for use with water, air or nitrogen pressure sensing in harsh or hazardous environments as in chemical plants, refineries, gas and petroleum installations offshore and marine vessels.



(for illustration only)

Features

- Solid, Single Piece Construction
- Stainless Steel Enclosure
- Pre-Wired Integral Terminal Box
- Safety Vented Design
- Functional Safety Certified as per IEC 61508-2 for use in
- SIL 2 safety systems
- Field Adjustable
- One SPDT (Single-Pole Double-Throw) micro-switch
- Welded Diaphragm
- IP66/NEMA 4x suitable for harsh environments
- NACE MR 01-75 complaint with PS-RVM22SDE02F model

Approvals

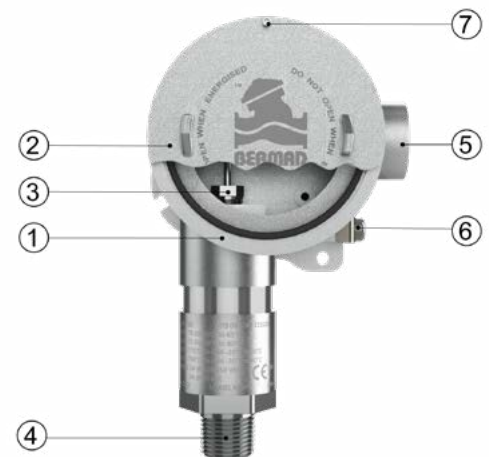
- ATEX directive 2014/34/EU II2DG Ex d IIC T6
- CE LVD- Low Voltage Directive 2014/35/EU
- Pressure Equipment Directive (PED) 97/23/EU
- IECEx Certified

Materials

- Wetted parts: Stainless Steel 316 or Monel 400
- Housing: Stainless Steel 316
- Diaphragm: Stainless Steel 316 or Monel 400

End Connections

- Pressure / Process (sensor): ½" NPT (M)
- Electric Cable Entry Port: ½" NPT (F)



Major Components

- [1] Switch Housing
- [2] Terminal Box Cover
- [3] Adjustment Screw
- [4] Pressure / Process Connection (sensor)
- [5] Electric Port Entry
- [6] Grounding Screw
- [7] Terminal Box Fixing Screw (HEX 1.5mm)

BERMAD Fire Protection

PS-RV

Indicating Devices

Pressure Setting & Range

- Factory Set: 2.5 bar high, 2.2 bar low
- Adjustable range: 1.0 to 6.0 bar (15 to 85 psi)
- Dead band: 0.23 bar low (3.3 psi)
- Set point repeatability: $\pm 1\%$ of adjustable range
- Max. Working Pressure: 27 bar (390 psi)

Enclosures Class

- ATEX ZONE 1 Classification II 2 G/D Ex d IIC T6 Certified
- IECEx FLAMEPROOF IEC60079-0/1/31
- NEMA 4x / IP66 Weatherproof

Electrical Ratings

- 5A@110/250 VAC & 2A@30 VDC
- Silver contacts

Ambient Temperature

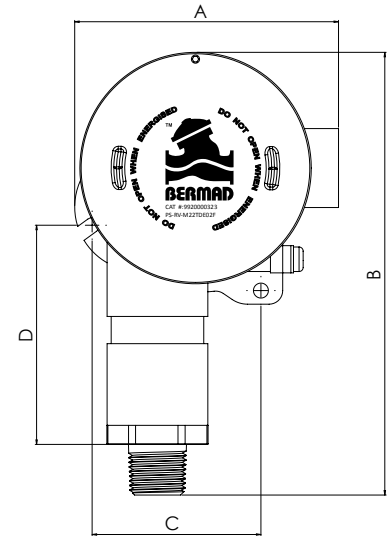
- Storage and operation: -30°C to +60°C (-22°F to +140°F)

Weight

- 1.5kg / 3.3lbs

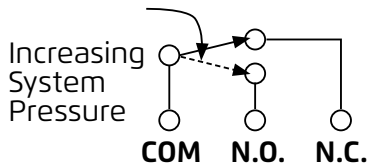
Model Selection Table

| Model | Wetted Parts | Enclosure | Sensor |
|--------|--------------|-----------|----------|
| PS-RVS | SS316 | SS316 | one SPDT |
| PS-RVT | Monel 400 | SS316 | one SPDT |

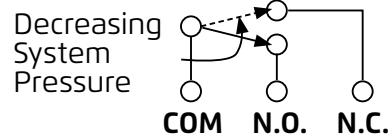


| Dim | PS-RV | |
|-------|-------|------|
| | mm | inch |
| A | 97 | 3.82 |
| B | 145 | 5.71 |
| C | 62 | 2.44 |
| D | 78 | 3.07 |
| Depth | 64 | 2.52 |

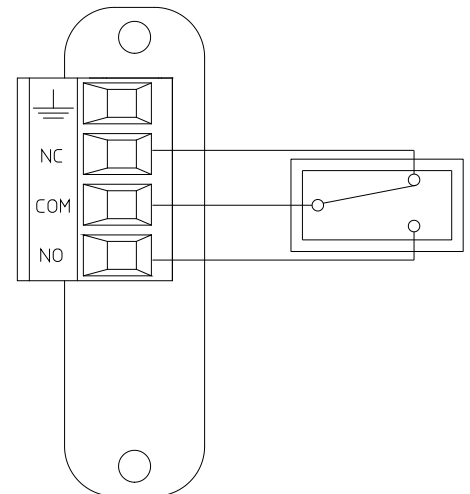
Switch Termination:



Typical Waterflow Alarm



Typical Low Pressure Supervision



www.bermad.com

© Copyright 2009-2019 Bermad CS Ltd. All Rights Reserved. The information contained in this document is subject to change without notice. BERMAD shall not be liable for any errors contained herein. August 2019