

The DPD1T and DPD2T are diaphragm differential models. Select a diaphragm model for applications requiring instrument accuracy of +/- 0.5% and where cycles are fewer than 25 per minute. Available as single or dual setting units. Differential ranges from .03 to 150 psid.

The DPD1T (single setpoint) and DPD2T (dual setpoint) are well suited for applications with the following requirements: NEMA 4 housing with terminal strip, tamper-proof external adjustment. Working ranges from .03-- 300 psi, set-point ranges from .03 to 150 psi.

Features

- High reliability
- Dual switching capability
- High accuracy
- Tamper-proof external adjustment
- NEMA 4

Applications

- Pump & compressor monitoring
- HVAC systems
- Engine monitoring
- Machine tools
- Hydraulic power units
- Filtration systems
- Metal working
- Utility & power generation



General Specifications*

| | |
|------------------------------------|---|
| Electrical Characteristics: | All models incorporate Underwriters Laboratories, Inc. and CSA Listed single pole double throw snap-action switching elements. |
| Accuracy: | ± 0.5% of the adjustable range |
| Switch Type: | SPDT snap action; single or dual circuit |
| Rating: | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC (Class A or H limit switch). Consult product configurator for ratings of optional limit switches. |
| Wetted Parts: | |
| Diaphragm: | 17-7 PH stainless steel |
| Seals: | Viton® |
| Enclosure: | Die-cast aluminum anodized |
| Other Parts: | Nickel plated aluminum 300 series stainless steel |
| Electrical Connection: | Screw terminals on covered terminal strip through 1/2" NPT conduit fitting |
| Enclosure Ratings: | NEMA 4 |
| Pressure Connection: | 1/8" NPT female high + low |

* See product configurator for additional options.

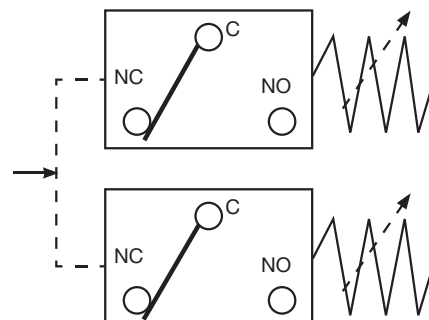
| | |
|---------------------------------|---|
| Approvals/Listings: | |
| PED (European): | Compliant to PED 97/23/EC |
| Temperature Range: | |
| Operating: | -65°F to +165°F (-54°C to +74°C) |
| Adjustment Instructions: | |
| Pressure: | Turn adjustment screw clockwise to decrease pressure difference; counterclockwise to increase pressure difference |
| Vacuum Differential: | Turn adjustment screw counterclockwise to decrease vacuum difference; clockwise to increase vacuum difference |
| Options: | -Factory pre-set -NEMA 4X enclosure |
| Shipping Weight: | Single & dual - approximate 3.50 lbs. |

Wiring Code

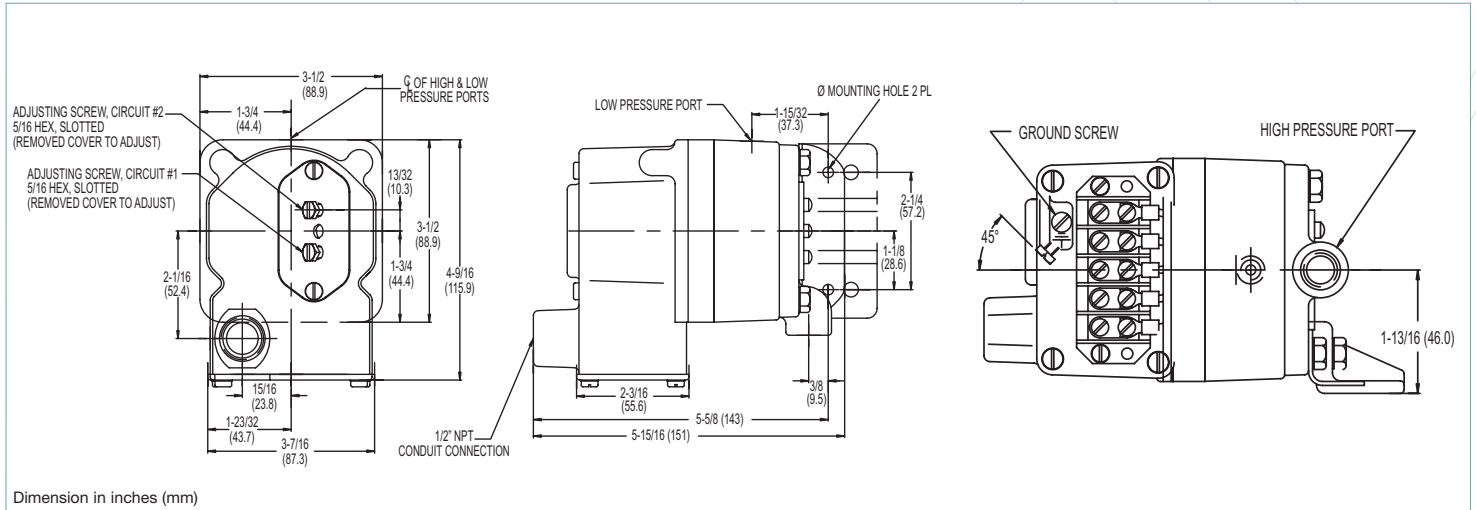
| Lead | Circuit #1 | | Circuit #2 | |
|-----------------|------------|--------|------------|--------|
| | Pressure | Vacuum | Pressure | Vacuum |
| Normally Closed | Blue | Red | Orange | Yellow |
| Common | Purple | Purple | Brown | Brown |
| Normally Open | Red | Blue | Yellow | Orange |

Wiring Diagram

(contact status at atmospheric pressure)



Technical Drawing



Product Configurator

Example **DPD1T -A 3SS**

H Hermetically sealed limit switch option - Class I, Division II (requires AA, CC or HH limit switch)

Base Configuration

| | |
|-------|------------------------|
| DPD1T | Single setpoint housed |
| DPD2T | Dual setpoint housed |

Limit Switch¹

| | |
|-----|---|
| -A | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 3SS, 80SS or 150SS) |
| -B | 10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC |
| -H | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 18SS) |
| -J | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (comes with an elastomer boot) |
| -M | 10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC |
| -GH | 1 amp @ 125 VAC; with gold contacts |
| -AA | Hermetically sealed; 4 amps @ 125/250 VAC (not available on vacuum models) |
| -CC | Hermetically sealed; 10 amps @ 125/250 VAC (not available on vacuum models) |
| -GH | Hermetically sealed; 1 amp @ 125 VAC with gold contacts (not available on vacuum models) |
| -HH | Hermetically sealed; 5 amps @ 125/250 VAC (not available on vacuum models) |

Options

| | |
|-------|---------------------------------------|
| -FX | NEMA 4X enclosure |
| -L6 | 6-contact terminal block (DPD2T only) |
| -CS | CSA approved |
| -Sxxx | Factory preset (consult factory) |

Adjustable Range

| Working Range | Adjustable Range (PRESSURE) ³ | | | | Approx. Deadband ² (Actuation Value) | Max. Diff. Pressure (Proof) | |
|---------------|--|-----------|------------------------|-----------|---|-----------------------------|------------|
| | Decreasing - psi (bar) | | Increasing - psi (bar) | | | | |
| | psi (bar) | Min | Max | Min | | | Max |
| 3SS | .03-10 | .03 (.00) | 2.76 (.2) | .27 (.02) | 3 (.2) | .09 - .24 (.01 - .02) | 10 (.7) |
| 18SS | .4-60 | .4 (.03) | 17.68 (1.2) | .72 (.05) | 18 (1.2) | .18 - .32 (.01 - .02) | 60 (4.1) |
| 80SS | .5-160 | .5 (.03) | 75.3 (5.2) | 5.2 (.4) | 80 (5.4) | 2.2 - 4.7 (.1 - .3) | 160 (10.9) |
| 150SS | 1.5-300 | 1.5 (.10) | 141.3 (9.7) | 10.2 (.7) | 150 (10.2) | 3.5 - 8.7 (.2 - .6) | 300 (20.4) |

| Working Range | Adjustable Range (VACUUM) ⁴ | | | | Approx. Deadband ² (Actuation Value) | Max. Diff. Pressure (Proof) | |
|---------------|--|------|---------------------|------|---|-----------------------------|-----|
| | Decreasing (In. Hg) | | Increasing (In. Hg) | | | | |
| | In. Hg | Min | Max | Min | | | Max |
| 3SS | .06-20 | 0.06 | 5.49 | 0.57 | 6 | .17 - .51 | 20 |
| 18SS | .8-30 | 0.8 | 29 | 1.8 | 30 | .44 - 1.00 | 30 |

NOTES:

- Consult supplementary guide for specific deadband values
- Deadband values indicated when used with the "standard" limit switch
- Working range may be extended to 400 psi provided the maximum differential pressure (proof) is not exceeded
- Working range may be extended to 30 in.Hg provided the maximum differential pressure (proof) is not exceeded