

Metal Diaphragm Diff. Press. Switches

DPD1T/DPD2T

Mechanical single/dual pressure switch
Repeatability ± 1.0 % at constant temperature

Features

- ▶ Metal diaphragm pressure switches
- ▶ Wetted parts welded
- ▶ Direct action, no friction, high accuracy
- ▶ Approvals: Ex ia, marine, SIL2/3 (IEC 61508)

Adjustment ranges

0.02 ... 10.2 bar, differential pressure

Applications

Machine and tool engineering,
Autoclaves,
Pump control,
Refrigerant monitoring,
Ship building applications



Technical Data

| | |
|-------------------------------|---|
| Wetted parts: | Stainless steel 17 - 7PH Aluminium, nickel-plated O-rings: FKM |
| Repeatability: | ± 1 % at constant temperature |
| Switching rate: | max. 20/min |
| Temperature range: | -40 °C... +75 °C |
| Protection class: | IP65 |
| Housing: | Top part: aluminium powder coated Bottom part: aluminium nickel-plated |
| Process connection: | 1/8" NPT female thread |
| Electrical connection: | Internal terminal strip (0.5 - 2.5 mm ²) Standard: WAGO terminal and cable gland M20 x 1.5; clamping range $\varnothing 5$... 11 mm |

| | |
|---|---|
| Electrical ratings and hysteresis: | A large variety of micro switches offers different electrical ratings and hysteresis for many applications. |
| Weight: | DPD1T-...: approx. 1.6 kg DPD2T-...: approx. 1.7 kg |
| Set point adjustment: | Turn the adjustment screw clockwise to decrease the set point |
| Intrinsically safe: | The switches are designed for intrinsically safe applications. In this case we recommend gold contacts. Please add "Exi" to your ordering details when placing an order. To comply with the intrinsically safe approval following max. ratings must not be exceeded: U _{max} = 28 V; I _{max} = 50 mA |
| Approval: | DNV-GL, Ex ia, SIL2/3 |

Pressure Ranges

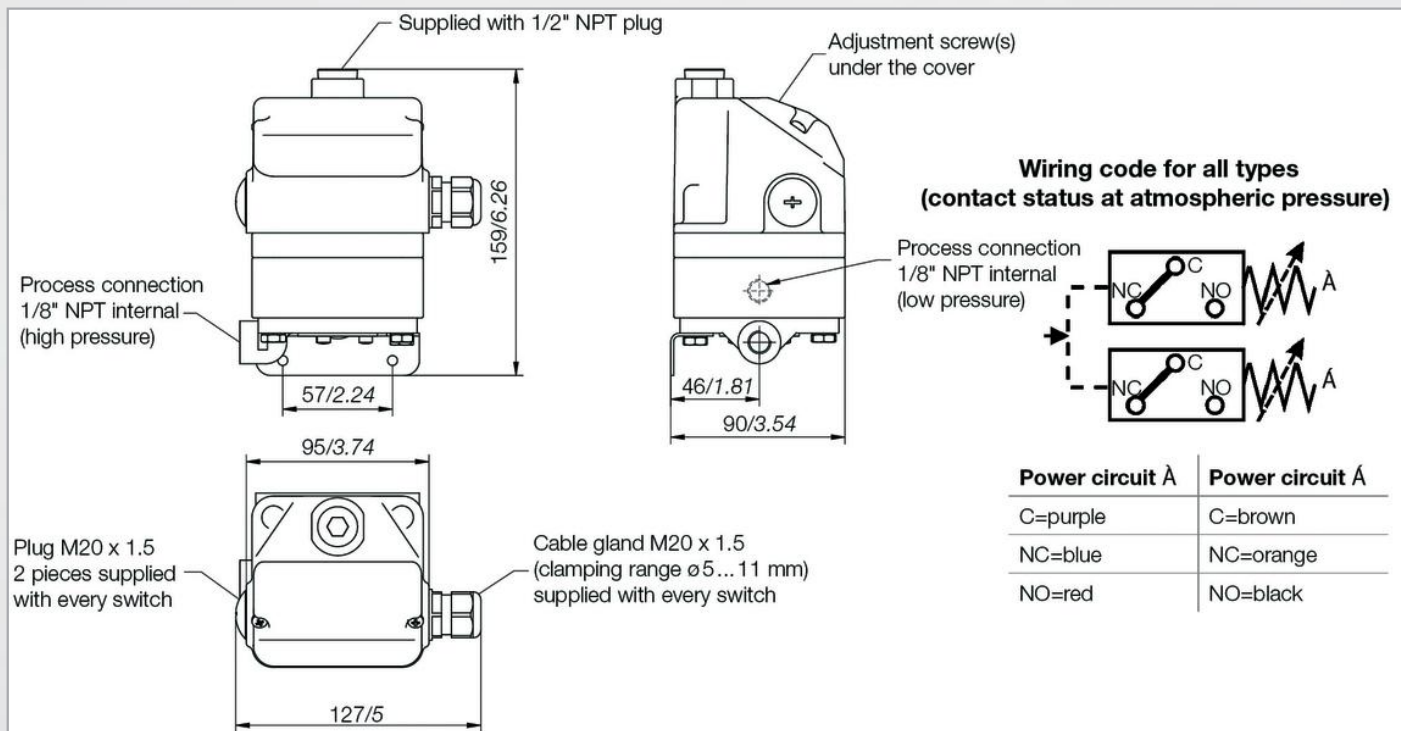
* Static operating pressures up to 28 bar possible. Differential pressure of the adjustable range must not be exceeded.

| Pressure range code | Adjustment range [bar] * | | Max. operating pressure [bar] | Proof pressure [bar] (short term) | The resulting hysteresis is approx. ... bar at the end of range | |
|---------------------|--------------------------|-------------------|-------------------------------|--------------------------------------|---|-------------|
| | Increasing press. | Decreasing press. | | | H, GH [bar] | M, GM [bar] |
| Overpressure | | | | | | |
| 3SS | 0.02 ... 0.2 | 0.002 ... 0.2 | 0.47 | 0.7 | 0.01 | 0.02 |
| 18SS | 0.05 ... 1.2 | 0.030 ... 1.2 | 2.7 | 4.0 | 0.02 | 0.05 |
| 80SS | 0.40 ... 5.4 | 0.030 ... 5.2 | 7.1 | 10.7 | 0.14 | 0.32 |
| 150SS | 0.70 ... 10.2 | 0.100 ... 9.7 | 13.3 | 20.0 | 0.26 | 0.60 |

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Dimensions (mm / inch)



Electrical Ratings

| Micro switch | Special features | Volt AC 50/60 Hz | Ind. load A | Res. load A | Volt DC | Ind. load A | Res. load A | Comments |
|--------------|---|------------------|-------------|-------------|-----------------|----------------------|--------------------|---|
| H | Micro switch with silver contacts | 125 250 | 10 10 | 10 10 | 6 to 24 | 0.50 | 0.5 | Small hysteresis; High AC-/low DC-load |
| M | Micro switch with silver contacts | 125 250 | 10 10 | 10 10 | 12 24 250 | 5.00 1.00 0.25 | 15.0 2.0 0.4 | Medium hysteresis; High AC- and DC-loads |
| GH | Micro switch with gold contacts for low voltage and/ or low current (e. g. "Exi") | 125 | 1 | 1 | 24 | 1.00 | 1.00 | Small hysteresis |
| GM | | 30 | 0.1 | 0.1 | 30 | 0.10 | 0.1 | Medium hysteresis |

Options

| | DPD1T-... | | DPD2T-... |
|-----|---|-----|------------------------------------|
| ST1 | Plug, 3-pin + E, DIN EN 175 301-801-A (prev. DIN 43650) | ST3 | Plug, 6-pin + E, DIN EN 43651 |
| EXI | for intrinsically safe application | EXI | for intrinsically safe application |

Order Code

Example for order number

| Type | Micro switch | Pressure range code | Options | Approval |
|----------------|--------------|---------------------|---------|----------|
| DPD1T or DPD2T | GH | 3SS | ST1 | EXI |

Your order number

| Type | Micro switch | Pressure range code | Options | Approval |
|--|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> or <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |