



DCM25

DCM/DNM

Pressure switches and pressure monitors for overpressure

This universal pressure switch can be used in general mechanical engineering and the printing machine industry, as well as in pneumatics and hydraulics.

SIL 2 according IEC 61508-2



Technical data

Pressure connection

External thread G 1/2 (pressure gauge connection) according to DIN 16 288 and internal thread G 1/4 according to ISO 228 Part 1.

Switching device

Robust housing (200) made of seawater-resistant diecast aluminium GD Al Si 12.

Protection class

IP 54, in vertical position.

Pressure sensor materials

DNM025...DCM63 Metal bellows: 1.4571
Sensor housing: 1.4104
DCM025 – DCM 1 Metal bellows: Cu Sensor housing: Cu + Ms
DCM4016/ Diaphragm: Perbunan
DCM4025 Sensor housing: 1.4301
DCM1000 Diaphragm: Perbunan Sensor housing: Brass

Mounting position

Vertically upright and horizontal. DCM4016 and 4025 vertically upright.

Ambient temp. at switching device

-25...+70 °C, except: DCM4016, 4025, 1000: -15...+60 °C

Max. medium temperature

The maximum medium temperature at the pressure sensor must not exceed the permitted ambient temperature at the switching device. Temperatures may reach 85°C for short periods). Higher medium temperatures are possible provided the above limit values for the switching device are ensured by suitable measures (e.g. siphon).

Mounting

Directly on the pressure line (pressure gaugeconnection) or on a flat surface with two 4 mm Ø screws.

Switching pressure

Adjustable from outside with screwdriver.

Switching differential

Not adjustable with DCM and types. Adjustable from outside with DCMV types. For values see Product Summary.

Contact arrangement

Single-pole changeover switch.

| Switching capacity | 250 VAC | | 250 VDC | | 24 VDC | |
|--------------------|---------|-------|---------|-------|--------|-------|
| | (ohm) | (ind) | (ohm) | (ohm) | (ohm) | (ohm) |
| Normal | 8 A | 5 A | 0.3 A | | 8 A | |

| Type | Setting range | Switching differential (mean values) | Max. permissible pressure | Materials in-contact with medium | Dimensioned drawing |
|--|-----------------|--------------------------------------|---------------------------|----------------------------------|---------------------|
| Switching differential not adjustable | | | | | page 25 + 26 |
| DCM4016 | 1...16 mbar | 2 mbar | 1 bar | Perbunan | 1 + 11 |
| DCM4025 | 4...25 mbar | 2 mbar | 1 bar | + 1.4301 | |
| DCM1000 | 10...100 mbar | 12 mbar | 10 bar | Perbunan + MS | 1 + 10 |
| DCM025 | 0.04...0.25 bar | 0.03 bar | 6 bar | Cu + Ms | |
| DCM06 | 0.1...0,6 bar | 0.04 bar | 6 bar | Cu + Ms | 1 + 14 |
| DCM1 | 0.2...1,6 bar | 0.04 bar | 6 bar | Cu + Ms | |
| DNM025 | 0.04...0.25 bar | 0.03 bar | 6 bar | | 1 + 15 |
| DCM506 | 15...60 mbar | 10 mbar | 12 bar | | 1 + 12 |
| DCM3 | 0.2...2.5 bar | 0.1 bar | 16 bar | Sensor housing | 1 + 18 |
| DCM6 | 0.5...6 bar | 0.15 bar | 16 bar | | |
| DCM625 | 0.5...6 bar | 0.25 bar | 25 bar | 1.4104 | 1 + 17 |
| DCM10 | 1...10 bar | 0,3 bar | 25 bar | + | |
| DCM16 | 3...16 bar | 0.5 bar | 25 bar | Pressure bellow | |
| DCM25 | 4...25 bar | 1.0 bar | 60 bar | 1.4571 | 1 + 16 |
| DCM40 | 8...40 bar | 1.3 bar | 60 bar | | |
| DCM63 | 16...63 bar | 2.0 bar | 130 bar | | |

Switching differential adjustable

| | | | | | |
|---------|-----------------|-----------------|---------|-----------------|--------|
| DCMV025 | 0.04...0.25 bar | 0.03...0.4 bar | 6 bar | | |
| DCMV06 | 0.1...0.6 bar | 0.04...0.5 bar | 6 bar | Cu + Ms | 1 + 14 |
| DCMV1 | 0.2...1.6 bar | 0.07...0.55 bar | 6 bar | | |
| DCMV3 | 0.2...2.5 bar | 0.15...1.5 bar | 16 bar | Sensor housing | 1 + 18 |
| DCMV6 | 0.5...6 bar | 0.25...2.0 bar | 16 bar | | |
| DCMV625 | 0.5...6 bar | 0.25...2.0 bar | 25 bar | 1.4104 | 1 + 17 |
| DCMV10 | 1...10 bar | 0.5...2.8 bar | 25 bar | + | |
| DCMV16 | 3...16 bar | 0.7...3.5 bar | 25 bar | Pressure bellow | |
| DCMV25 | 4...25 bar | 1.3...6.0 bar | 60 bar | 1.4571 | 1 + 16 |
| DCMV40 | 8...40 bar | 2.6...6.6 bar | 60 bar | | |
| DCMV63 | 16...63 bar | 3.0...10 bar | 130 bar | | |

For smaller pressure ranges see also VCM, DGM, HCD and DPS sheets.

For additional functions refer page 30–32.

Calibration

The DCM series is calibrated for falling pressure. This means that the adjustable switching pressure on the scale corresponds to the switching point at falling pressure. The reset point is higher by the amount of the switching differential. (See also page 27, 1. Calibration at lower switching point).

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