



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



DCM25

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 die cast 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 gauge connection) or on a flat surface with two 4 mm Ø screws.

Switching pressure

Adjustable from outside with screw driver.

Switching differential

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

Contact arrangement

Single pole change over 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
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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 + 16	
DCM40	8...40 bar	1.3 bar	60 bar	1.4571		
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 + 16
DCMV40	8...40 bar	2.6...6.6 bar	60 bar	1.4571	
DCMV63	16...63 bar	3.0...10 bar	130 bar		

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.

More information about FEMA pressure switches you can find at tri-matic.ch/fr/produits/pressostats.html



Ex-DNM10

Ex - DCM / Ex - DNM

Ex II 2G Ex d e IIC T6 Gb

Ex II 1/2D Ex ta/tb IIIC T80 °C Da/Db

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 (700) made of seawater resistant die cast aluminium GD Al Si 12.

Protection class

IP 65, in vertical position.

Pressure sensor materials

Ex-DNM Metal bellows: 1.4571
Sensor housing: 1.4104
Ex-DCM4016/
Ex-DCM4025 Diaphragm: Perbunan
Sensor housing: 1.4301

Mounting position

Vertically upright.

Ambient temp. at switching device

-20...+60 °C

Max. medium temperature

The maximum medium temperature at the pressure sensor must not exceed the permitted ambient temperature at the switching device. 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 gauge connection) or on a flat surface with two 4 mm Ø screws.

Switching pressure

Adjustable from outside with screw driver.

Contact arrangement

Single pole change over switch.

Switching capacity	250 VAC		250 VDC	
	(ohm)	(ind)	(ohm)	(ohm)
Ex-d	3 A	2 A	0.03 A	3 A

Product Summary

Type	Setting range	Switching differential (mean values)	Max. permissible pressure	Materials in contact with medium	Dimensioned drawing
Switching differential not adjustable					page 25 + 26
Ex-DCM4016	1...16 mbar	2 mbar	1 bar	Perbunan	4 + 11
Ex-DCM4025	4...25 mbar	2 mbar	1 bar	+ 1.4301	4 + 11

For other Ex-devices, see type series VCM, DNS, DDCM, DWR, DGM.

Type	Setting range	Switching differential (mean values)	Max. permissible pressure	Dimensioned drawing
Ex-DNM10	1...10 bar	0.3 bar	25 bar	4 + 17
Ex-DNM63	16...63 bar	1.0 bar	130 bar	4 + 16

Calibration

The **Ex-DCM/Ex-DNM** 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.

More information about FEMA pressure switches you can find at tri-matic.ch/fr/produits/pressostats.html