Ex-DNS3

Ex-DNS/Ex-VNS

Ⓔx II 2G Ex d e IIC T6 Gb

Ⓔx II 1/2D Ex ta/tb IIIC T80 °C Da/Db

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 diecast aluminium GD Al Si 12.

Protection class
IP 65

Pressure sensor materials
Pressure bellows and all parts in contact with medium. X 6 Cr Ni Mo Ti 17122 Material no. 1.4571

Mounting position
Vertically upright.

Max. ambient temperature 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 gaugeconnection) or on a flat surface with two 4 mm Ø screws.

Switching pressure
Adjustable from outside with screwdriver.

Contact arrangement
Single-pole changeover switch.

Switching capacity	250 VAC (ohm)	(ind)	250 VDC (ohm)	24 VDC (ohm)
Ex-d	3 A	2 A	0.03 A	3 A

Plastic coating
The diecast aluminium housing in GD Al Si is chromated and stove-enamelled with resistant plastic. Corrosion tests with 3% saline solution and 30 temperature changes from +10 to +80°C showed no surface changes after 20 days.

Product Summary

Type	Setting range		Switching differential (mean values)		Max. permissible pressure		Dimen-sioned drawing
Switching differential not adjustable							page 25 + 26
Ex-VNS301	–250…+100	mbar	45	mbar	3	bar	
Ex-VNS111	–1*…+0.1	bar	50	mbar	6	bar	
Ex-DNS025	0.04…0.25	bar	30	mbar	6	bar	4 + 15
Ex-DNS06	0.1…0.6	bar	40	mbar	6	bar	
Ex-DNS1	0.2…1.6	bar	60	mbar	6	bar	
Ex-DNS3	0.2…2.5	bar	0.1	bar	16	bar	4 + 18
Ex-DNS6	0.5…6	bar	0.15	bar	16	bar	
Ex-DNS10	1…10	bar	0.3	bar	16	bar	4 + 16
Ex-DNS16	3…16	bar	0.5	bar	25	bar	

* At very high vacuums, close to the theoretical maximum of –1 bar, the switch may not be usable in view of the special conditions of vacuum engineering. However, the pressure switch itself will not be damaged at maximum vacuum.

Calibration

The **Ex-DNS** and **Ex-VNS** series are 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).