

Data sheet

Cleaning Room Sensor | Type PMDS4



PMDS4 is a suitable positive and negative pressure monitoring of non-aggressive gases in cleaning rooms. Due to the construction of the device it can be directly installed into the partition. Up to four additional sensors for temperature and humidity can be connected to the device and displayed. The calibration and adjustment is made simply by using the front panel.

Fields of application

Clean room technology; Chemical industry; Medical technology; Filter technology...

Technical Data

Description	
Measurement ranges	- 100 Pa – 100 Pa (other ranges on request)
Measurement principle	inductive
Overloading capability	Overpressure recognition pos. overpressure + 1.15 hPa +/- 0.075 hPa neg. overpressure - 1.15 hPa +/- 0.075 hPa For differential measurements: Max. system pressure 1 bar (higher overpressure protection on request)
Medium	Non-aggressive gasses
Parts in contact with medium	Ni, Al, CuBe, PU
Accuracy*	+/- 1 % FS Option: +/- 0,5 % FS +/- 0.2 % FS; other ranges \geq 2.5 hPa

* The accuracy describes the maximum permissible measurement deviation of the sensor output signal from an applied pressure value. The accuracy includes measurement errors due to linearity errors, hysteresis errors and repeatability error. Pressure transducers from FSM are being subjected to a zero point calibration and an amplitude adjustment. Both errors are thereby compensated. The specified accuracy therefore includes the maximum error at room temperature.

Description	
Supply	15 - 35 VDC Option: 100 - 240 VAC (50 - 60 Hz)
Current consumption	6 VA
Protection	500 mA
Supply influence	< 0,05 %
Output signal	0 - 10 V (load ≤ 500 Ohm) Option: 0-20 mA, (0) 4- 20 mA (load ≤ 500 Ohm)
Option	Output RS485 and with Modbus ASCII protocol / Modbus TCP / IP
Temperature drift	Zero point max. +/- 0.03 % / K Span max. +/- 0.03 % / K
Temperature range	Specified range + 10 °C to + 50 °C
Humidity	up to 80% relative humidity
Storage temperature	-10 °C to + 70 °C
Long-term stability	± 0.5 % per year (typical)
Housing	Material ABS, dimensions: see below
Panel	Stainless steel
Pressure connections	Ø 3x4 mm (flexible hoses Ø 3) Ø 4,6x9 mm (flexible hoses Ø 4)
Electrical connections	Screw terminal max. 1,5 mm²
Protection class	II
Protection type	IP 20
Standards	EN 61000-6-1, EN6100-6-2, EN61000-6-3, EN61000-6-4, EN 61010
Weight	ca. 1.2 kg (ca. 1.3 kg with supply)
Dimensions	84.5 x 134 x 47 mm (H x B x D)
Impact strength	10 g
Sensor volume	approx. 10 ml
Volume increase	approx. 0.2 ml for nominal pressure
Display	4x7 segment LED-display; 4 digits, height of digit 14.2 mm, 4x14 segment LED-display 2 digits, height of digit 13.8 mm
Zeroing	zeroing is adjustable Manual automatic (after system start then after 10 min, 20 min. and 1 hour. Then every hour)

Description	
Resolution	12 Bit (4096 points)
Limit contacts	2 limit contacts (current consumption aprox. 35/45 mA) Relais output changer: 6 A / 230 VAC Status displayed via 2 LED Programmable: Hysteresis, power-on/ power-off delay, Opener/ NO switch Warning by flashing the display (value set)

Dimensions

