



DMD 341

Differential Pressure Transmitter for Gases and Compressed Air in Compact Version

Silicon Sensor

accuracy according to IEC 61298-2:
0.35 % / 1% / 2%

Differential pressure

from 0 ... 6 mbar up to 0 ... 1000 mbar

Output signals

2-wire: 4 ... 20 mA

3-wire: 0 ... 20 mA / 0 ... 10 V

Special characteristics

- ▶ aluminium housing
- ▶ suited for non-aggressive gases and compressed air

Optional versions

- ▶ customer specific versions

The DMD 341 is a differential pressure transmitter for non-aggressive gases and compressed air. Because of its compact and robust aluminium housing it is particularly suited for machine and plant engineering.

Basic element of the DMD 341 is a piezo-resistive silicon sensor, which features high accuracy and excellent long term stability.

Preferred areas of use are



Plant and machine engineering



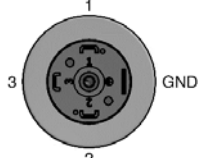
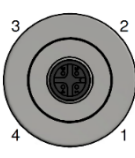
Heating and air conditioning

Preferred used for



Compressed air,
non-aggressive gases



Input pressure range											
Nominal pressure p _N (over, differential pressure) [mbar]	0...6	0...10	0...20	0...40	0...60	0...100	0...160	0...250	0...400	0...600	0...1000
Nominal pressure p _N symmetric (differential pressure) [mbar]	± 6	± 10	± 20	± 40	± 60	± 100	±160	± 250	± 400	± 600	±1000
Overpressure [mbar]	100	100	200	350	350	1000	1000	1000	1000	3000	3000
Output signal / Supply											
Standard	standard pressure range: 2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}										
Options 3-wire	standard pressure range: 3-wire: 0 ... 20 mA / V _S = 14 ... 30 V _{DC} 0 ... 10 V / V _S = 14 ... 30 V _{DC}										
Performance											
Accuracy ¹	p _N > 160 mbar: ≤ ± 0.35 % FSO 40 mbar ≤ p _N ≤ 160 mbar: ≤ ± 1 % FSO p _N < 40 mbar: ≤ ± 2 % FSO										
Permissible load	current 2-wire: R _{max} = [(V _S – V _{S min}) / 0.02 A] Ω current 3-wire: R _{max} = 240 Ω voltage 3-wire: R _{min} = 10 kΩ										
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ										
Long term stability	≤ ± 0.2 % FSO / year at reference conditions										
Response time	< 5 msec										
¹ accuracy according to IEC 61298-2 – limit point adjustment (non-linearity, hysteresis, repeatability)											
Thermal effects (offset and span)											
Nominal pressure p _N [mbar]	≤ 10		≤ 20		≤ 250			> 250			
Tolerance band [% FSO]	≤ ± 2		≤ ± 1.5		≤ ± 1			≤ ± 0.5			
TC, average [% FSO / 10 K]	± 0.3		± 0.25		± 0.15			± 0.08			
In compensated range	0 ... 60 °C										
Permissible temperatures											
Medium	-25 ... 125 °C										
Electronics / environment	-25 ... 85 °C										
Storage	-40 ... 100 °C										
Electrical protection											
Short-circuit protection	permanent										
Reverse polarity protection	no damage, but also no function										
Electromagnetic compatibility	emission and immunity according to EN 61326										
Mechanical stability											
Vibration	20 g RMS / 10 ... 2000 Hz according DIN EN 60068-2-6										
Shock	500 g / 11 msec half sine according DIN EN 60068-2-27										
Materials											
Pressure port	G1/8" internal: aluminium, silver anodized flexible tube connection Ø6.6 x 11: brass, nickel plated										
Housing	aluminium, silver anodised										
Seal (media wetted)	PUR, bonded										
Sensor	silicon, glass, RTV, ceramics Al ₂ O ₃ , nickel										
Media wetted parts	pressure port, housing, seal, sensor										
Miscellaneous											
Connecting cables (by factory)	cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1 µH/m										
Current consumption	signal output current: max. 25 mA signal output voltage: max. 7 mA										
Weight	approx. 250 g										
Operational life	100 million load cycles										
CE-conformity	EMC Directive: 2014/30/EU										
Pin configuration											
Electrical connection	ISO 4400 			M12x1 (4-pin), metal 			cable colour (IEC 60757)				
Supply +	1			1							
Supply –	2			2							
Signal + (only 3-wire)	3			3							
Shield	ground pin 			4			GNYE (green-yellow)				

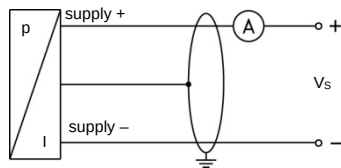
DMD 341

Differential Pressure Transmitter

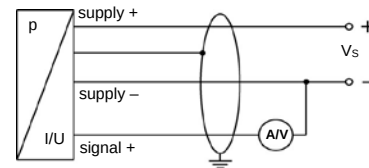
Technical Data

Wiring diagrams

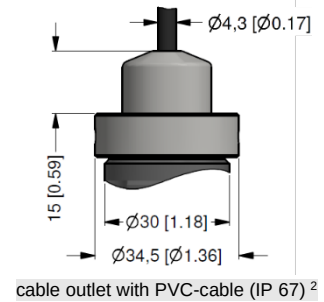
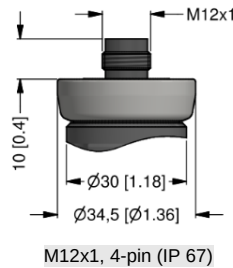
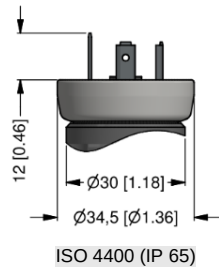
2-wire-system (current)



3-wire-system (current / voltage)

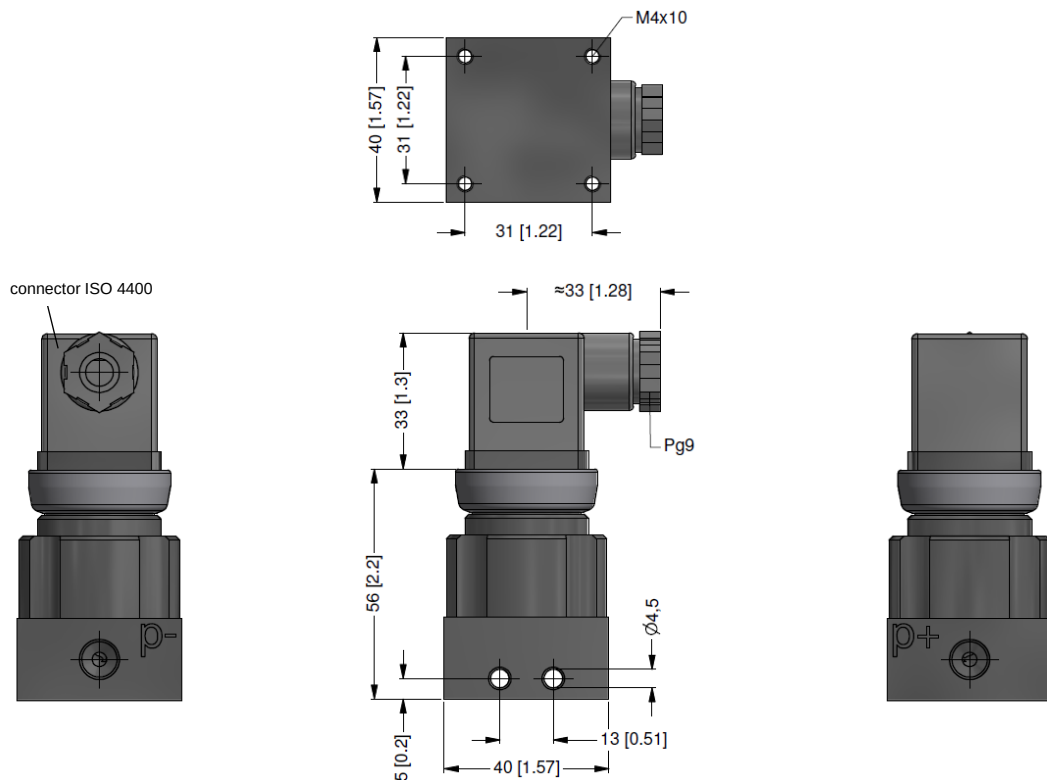


Electrical connections (dimensions mm / in)

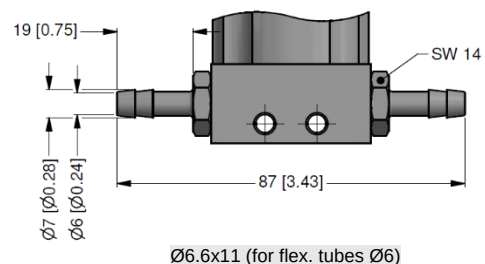
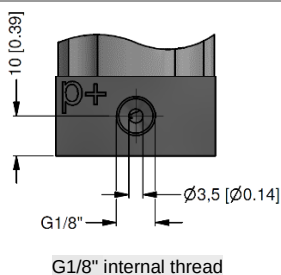


² standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C); optionally cable with ventilation tube

Dimensions (mm / in)



Mechanical connection (dimensions mm / in)



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¹ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C); others on request