



DMD 341

Differential Pressure Transmitter for Gases and Compressed Air in Compact Version

Silicon Sensor

accuracy according to EN IEC 62828-2:
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 piezoresistive stainless steel silicon sensor, which features high accuracy and excellent long term stability.

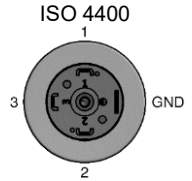
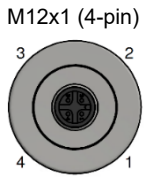
Preferred areas of use are

-  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 / $V_S = 8 \dots 32 V_{DC}$															
Options 3-wire	standard pressure range: 3-wire: 0 ... 20 mA / $V_S = 14 \dots 30 V_{DC}$ 0 ... 10 V / $V_S = 14 \dots 30 V_{DC}$															
Performance																
Accuracy ¹	$P_N > 160$ mbar: $\leq \pm 0.35$ % span $40 \text{ mbar} \leq P_N \leq 160$ mbar: $\leq \pm 1$ % span $P_N < 40$ mbar: $\leq \pm 2$ % span															
Permissible load	current 2-wire: $R_{max} = [(V_S - V_S \text{ min}) / 0.02 A] \Omega$ current 3-wire: $R_{max} = 500 \Omega$ voltage 3-wire: $R_{min} = 10 k\Omega$															
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / k Ω															
Long term stability	$\leq \pm 0.2$ % span / year at reference conditions															
Response time	< 5 msec															
¹ accuracy according to EN IEC 62828-2 – limit point adjustment (non-linearity, hysteresis, repeatability)																
Thermal effects (Offset and Span) / Permissible temperatures																
Nominal pressure P_N [mbar]	≤ 10			≤ 20			≤ 250			> 250						
Tolerance band [% span]	$\leq \pm 2$			$\leq \pm 1.5$			$\leq \pm 1$			$\leq \pm 0.5$						
TC, average [% span / 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	10 g RMS (20 ... 2000 Hz)															
Shock	100 g / 11 msec															
Materials																
Pressure port	G1/8" internal: aluminium, silver anodized flexible tube connection $\varnothing 6.6 \times 11$: brass, nickel plated															
Housing	aluminium, silver anodised															
Seal (media wetted)	PUR, bonded															
Sensor	silicon, glass, RTV, ceramics Al_2O_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 $\mu H/m$															
Current consumption	signal output current: max. 25 mA signal output voltage: max. 7 mA															
Weight	approx. 250 g															
Operational life	> 100 x 10 ⁶ pressure cycles															
CE-conformity	EMC Directive: 2014/30/EU															
Pin configuration																
Electrical connection									cable colours (IEC 60757)							
	Supply +	1	1	white	Supply -	2	2	brown					Signal + (only 3-wire)	3	3	green

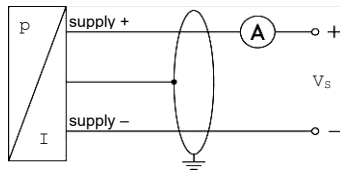
DMD 341

Differential Pressure Transmitter

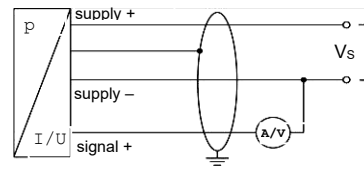
Technical Data

Wiring diagrams

2-wire-system (current)

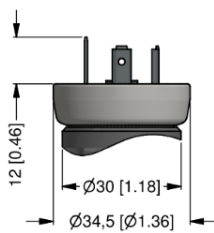


3-wire-system (current / voltage)



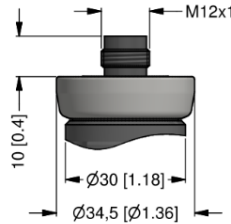
Electrical connections (dimensions in mm)

standard

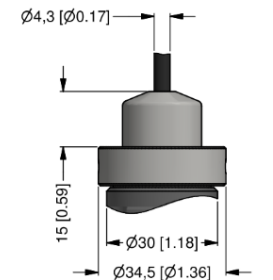


ISO 4400 (IP 65)

option



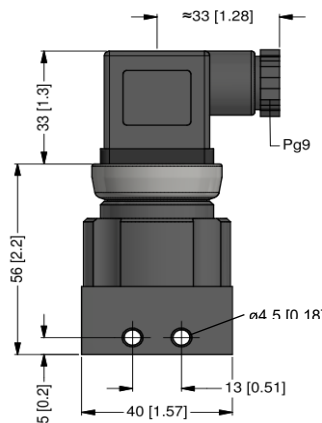
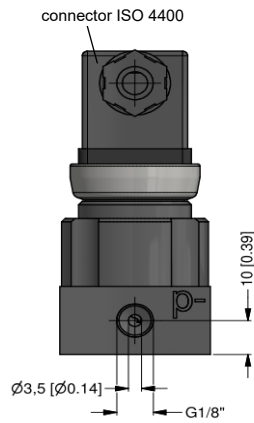
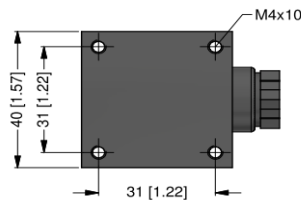
M12x1 4-pin (IP 67)



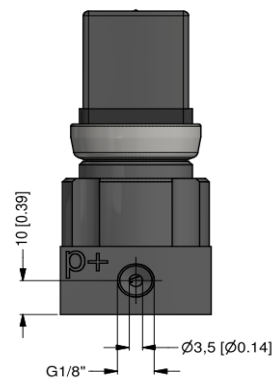
Cable outlet with PVC-cable (IP 67)²

² standard: 2 m PVC cable (without ventilation tube), optionally cable with ventilation tube

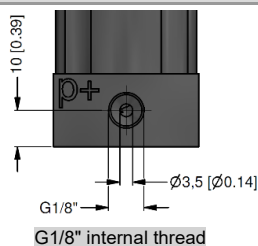
Dimensions (dimensions in mm)



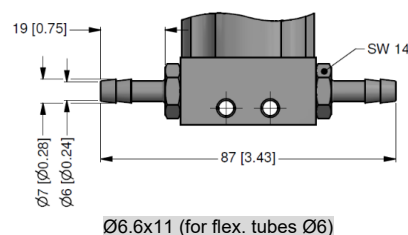
G1/8" internal



Mechanical connection (dimensions in mm)



G1/8" internal thread



06.6x11 (for flex. tubes Ø6)

This data sheet contains product specification. properties are not guaranteed. Subject to change without notice.

Ordering code DMD 341

23.08.2024

DMD 341

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Pressure																				
Differential																				
Gauge																				
Input [mbar]																				
0 ... 6 mbar																				
0 ... 10 mbar																				
0 ... 20 mbar																				
0 ... 40 mbar																				
0 ... 60 mbar																				
0 ... 100 mbar																				
0 ... 160 mbar																				
0 ... 250 mbar																				
0 ... 400 mbar																				
0 ... 600 mbar																				
0 ... 1000 mbar																				
-6 ... 6 mbar																				
-10 ... 10 mbar																				
-20 ... 20 mbar																				
-40 ... 40 mbar																				
-60 ... 60 mbar																				
-100 ... 100 mbar																				
-160 ... 160 mbar																				
-250 ... 250 mbar																				
-400 ... 400 mbar																				
-600 ... 600 mbar																				
-1000 ... 1000 mbar																				
Customer range																				
Customer underpressure																				
Output																				
4 ... 20 mA / 2-wire																				
0 ... 20 mA / 3-wire																				
0 ... 10 V / 3-wire																				
Customer																				
Accuracy																				
0,35 % (P _N > 160 mbar)																				
1 % (P _N = 40 ... 160 mbar)																				
2 % (P _N < 40 mbar)																				
0,35 % including Calibration Certificate (P _N > 160 mbar)																				
1 % including Calibration Certificate (P _N = 40 ... 160 mbar)																				
2 % including Calibration Certificate (P _N < 40 mbar)																				
Customer																				
Electrical connection																				
Connector DIN 43650 (ISO 4400) (IP 65)																				
Connector M12 x 1, 4-pin (IP 67)																				
Connector M12 x 1, 4-pin (IP 67) - metal																				
Cable outlet with PVC cable (cable length needs to specified) (IP 67) ¹																				
+ PVC cable / 1 m																				
Customer																				
Mechanical connection																				
G 1/8" internal thread																				



Ø 6,6 x 11 (for tubes Ø 6)

Customer	Y	0	0				
Seals	9	0	0				
PUR				6			
Special version							
Standard					0	0	0
Customer					9	9	9

0,-...without additional charge

On request... in accordance with the producer

1 - cable without through capillary (permissible temperature -5 ... +70 °C)

Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product;
detailed technical parameters of the product and its possible variants are given in the data sheet.
BD SENSORS reserves the right to change sensor specifications without further notice.

