

OEM

Model DPM500

For Differential Pressure Measurement

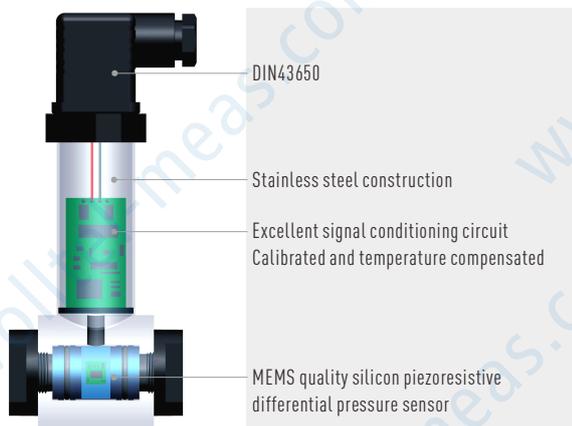


Product Overview

DPM500 is made from high-quality silicon piezoresistive differential pressure sensor. The piezoresistive sensor is packaged in stainless steel housing. The DPM500 is precision engineered to fit most industrial differential pressure measurement. The compact and rugged design makes these pressure transmitter suitable for applications including process control systems, hydraulic systems and valves, refrigeration and HVAC controls, level measurement and test equipment.

A wide range of process connection and electrical connection options are available to meet almost requirement.

Product structure



Features

- Measuring ranges from 200mbar to 25bar
- Differential pressure
- Accuracy: $\pm 0.25\%$ FSO or $\pm 0.5\%$ FSO
- Calibrated and temperature compensated
- Stainless steel construction
- Piezoresistive pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and others

Applications

- Process control systems
- Refrigeration and HVAC controls
- Hydraulic systems and valve
- Machine building
- Pumps and compressors

Standard Pressure Ranges

Nominal pressure	differential
0...0.2bar	•
0...0.35bar	•
0...0.7bar	•
0...1bar	•
0...1.6bar	•
0...2.5bar	•
0...4bar	•
0...6bar	•
0...10bar	•
0...16bar	•
0...25bar	•

Other pressure ranges available. Please consult the factory.

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

Performance Specifications

Parameter	Value	Units	Notes
General			
Pressure Range	0-0.2,...,25	bar	1bar=14.5psi
Overpressure	1.5xFS	bar	
Environmental			
Operating Temperature Range	-20 to +85	°C	-4°F to 185°F
Compensated Temperature Range	-10 to +70	°C	14°F to 158°F
Storage Temperature Range	-40 to +125	°C	-40°F to 257°F
Vibration	10	g	20 to 2000Hz
Shock	20	g	10ms
Cycles	10x10 ⁶	cycles	
Electrical @25°C(77°F)			
Output Signal	4...20mA 0...5Vdc 1...5Vdc 0...10Vdc 0.5...4.5Vdc(ratiometric)		
Power Supply(Vs)	12...30Vdc 12...30Vdc 12...30Vdc 15...30Vdc 5Vdc		
Load Resistance	<(Vs-12)/0.02A (For current output), >10kΩ (For voltage output)		
Insulation Resistance	100MΩ@50Vdc		
Physical Specifications			
Media Compatibility	All media compatible with 316L stainless steel		
Housing	1Cr18Ni9Ti stainless steel		
Diaphragm	316L stainless steel		
Seal Ring	Viton or NBR		
Oil Filling	Silicone oil		
Protection	IP65(Standard), IP66(only for cable outlet)		
Net Weight	Approx.380g		

Parameter	Minimum	Typical	Maximum	Units	Notes
Performance					
Accuracy	0.1	0.25	0.5	%FSO	1,2
Temp Coeff - Zero		±0.75	±1.5	%FSO	3
Temp Coeff - Span		±0.75	±1.5	%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

Notes

1. All values measured at 25°C(77°F)
2. Including non-linearity, hysteresis and repeatability.
3. -10°C to 70°C(14°F to 158°F) with reference to 25°C(77°F);.

The listed specifications and dimensions are subject to change without prior notice.

Connection Diagrams

Connector DIN43650



	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Connector M12x1 (4-pin)



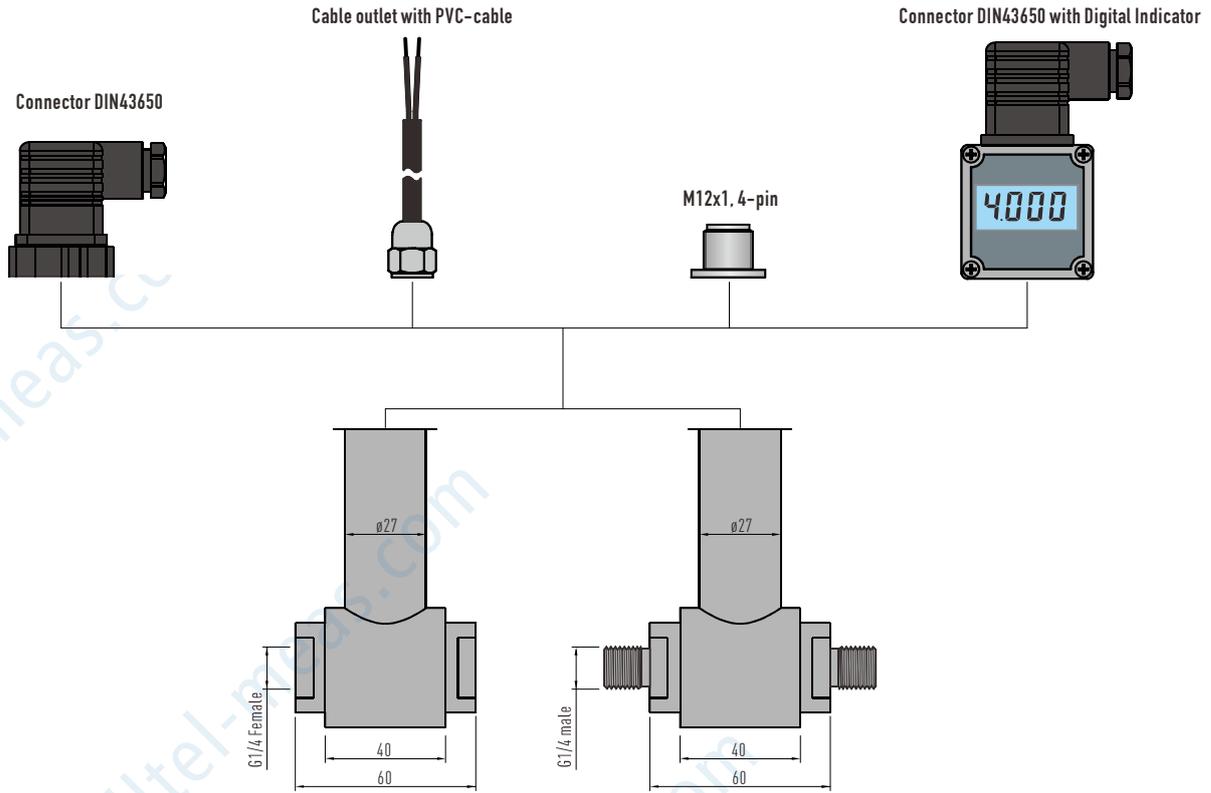
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Cable outlet



	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

Dimensions (in mm)



Ordering Information

Option1: Model							
DPM500	Piezoresistive Differential Pressure Transmitter						
Option2: Pressure Ranges							
0002	0...0.2bar						
0003	0...0.35bar						
0007	0...0.7bar						
0010	0...1bar						
0016	0...1.6bar						
0025	0...2.5bar						
0040	0...4bar						
Option3: Pressure Type							
D	differential						
-	-						
-	-						
Option4: Output Signal							
42	4...20mA						
05	0...5Vdc						
15	1...5Vdc						
10	0...10Vdc						
45	0.5...4.5(ratiometric)						
Option5: Accuracy							
02	0.25%FSO						
05	0.5%FSO						
Option6: Electrical Connection							
D	Connector DIN43650						
H	Hirschmann cable outlet,length=1.5m						
C	Cable outlet with PVC-cable,length=1.5m						
M	M12x1, 4-pin						
P	Connector DIN43650 with Digital Indicator						
Option7: Mechanical Connection							
M2	M20x1.5(male)	N1	1/4NPT(male)				
G4	G1/4(male)	F4	G1/4(female)				
G2	G1/2(male)	Nx	Customized				
DPM500	0010	D	42	02	D	G4	Examples of Ordering Code: DPM500-0010-D-42-02-D-G4