

OEM

Model DPM500

For Differential Pressure Measurement

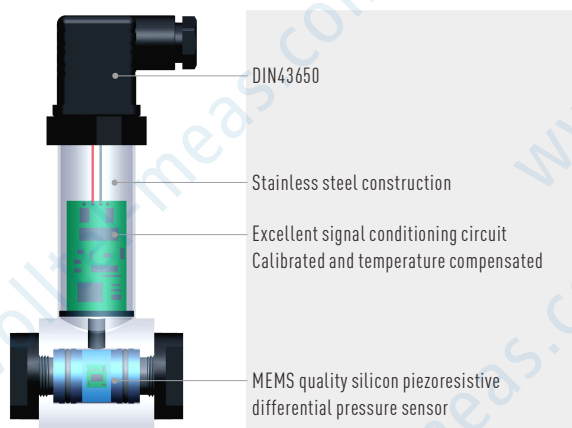


Product Overview

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.

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

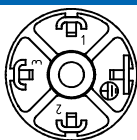
Notes

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



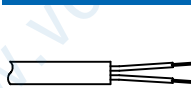
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Connector M12x1(4-pin)



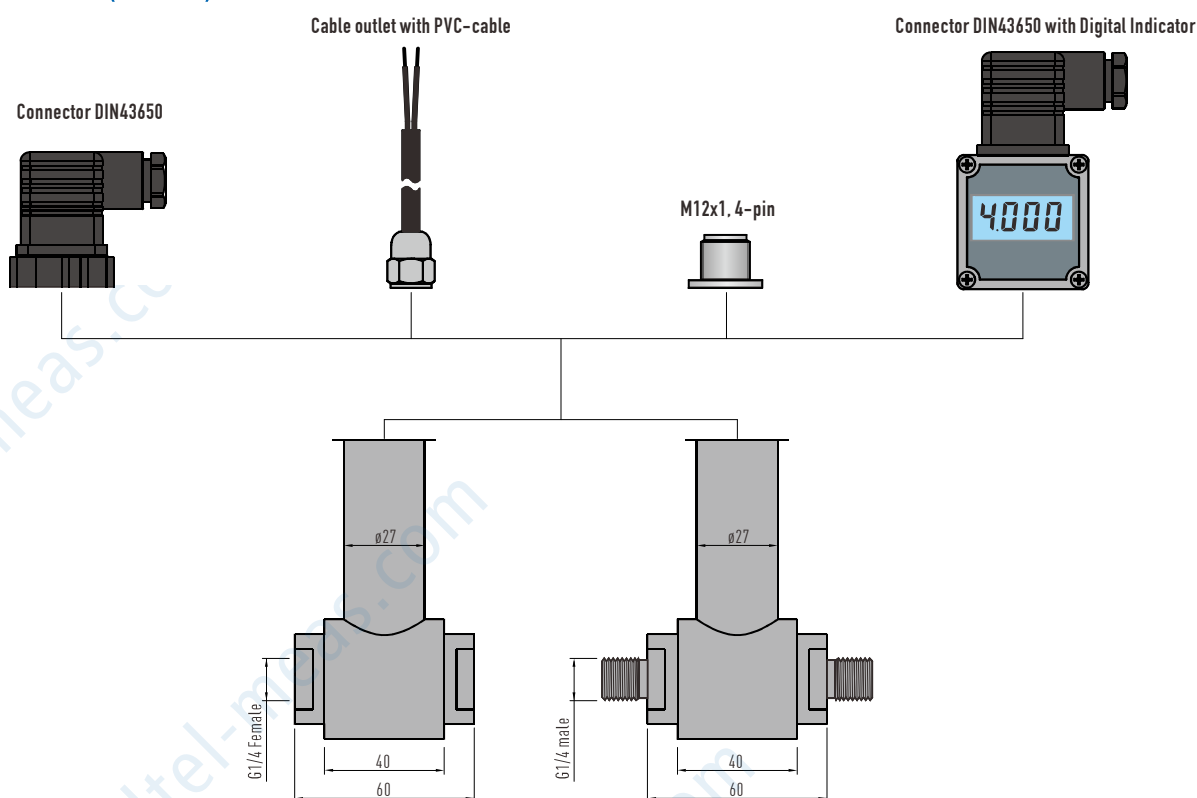
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

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	0060	0...6bar
0003	0...0.35bar	0100	0...10bar
0007	0...0.7bar	0160	0...16bar
0010	0...1bar	0250	0...25bar
0016	0...1.6bar	Cxxx	Customized range
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