

Model PM20S

For General Industrial Applications



Features

- Measuring ranges from 100mbar to 600bar
- Absolute, gauge and sealed gauge
- 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

Product Overview

PM20S is made from high-quality silicon piezoresistive sensor. The piezoresistive sensor is packaged in stainless steel housing. The PM20S is precision engineered to fit most industrial 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.

Applications

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

Standard Pressure Ranges

Nominal pressure	gauge	sealed gauge	absolute
-1...0bar	●		
-0.35...0bar	●		
-0.2...0bar	●		
0...0.1bar	●		
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	●	●	
0...60bar		●	
0...100bar		●	
0...250bar		●	
0...400bar		●	
0...600bar		●	

Other pressure ranges available. Please consult the factory.

Performance Specifications

Parameter	Value	Units	Notes
General			
Pressure Range	-1-0, ..., 0-0.1, ..., 600	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	100	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...36Vdc 12...36Vdc 12...36Vdc 15...36Vdc 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	304 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. 185g

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

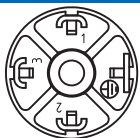
Notes

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.

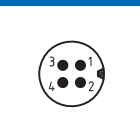
Connection Diagrams

Connector DIN43650



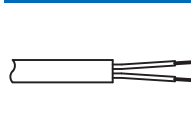
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Connector M12x1 (4-pin)



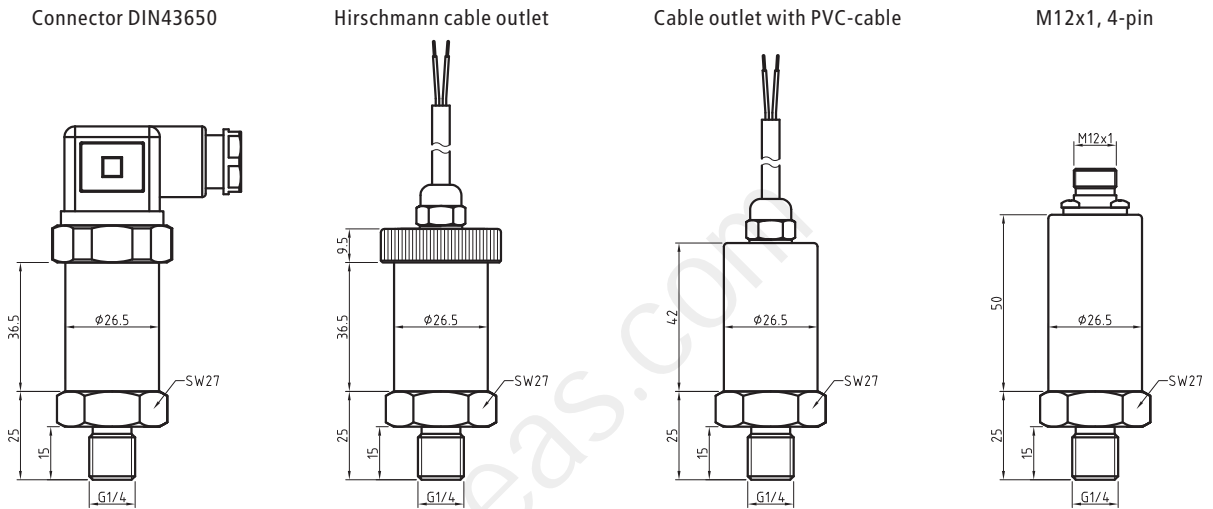
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Cable outlet

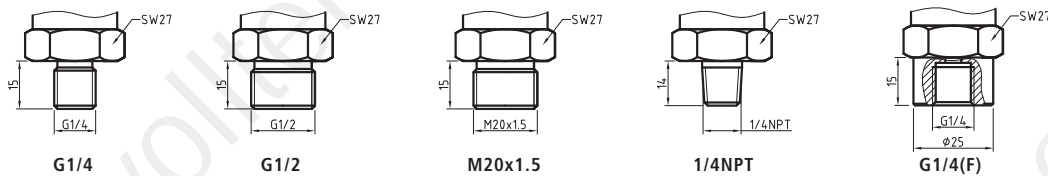


	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

Dimensions (in mm)



Mechanical Connection (in mm)



Ordering Information

Option1: Model							
PM20S	Piezoresistive Pressure Transmitter						
Option2: Pressure Ranges							
N001	-1...0bar 0016 0...1.6bar 0600 0...60bar						
N002	-0.35...0bar 0025 0...2.5bar 1000 0...100bar						
N003	-0.2...0bar 0040 0...4bar 2500 0...250bar						
0001	0...0.1bar 0060 0...6bar 4000 0...400bar						
0003	0...0.35bar 0100 0...10bar 6000 0...600bar						
0007	0...0.7bar 0160 0...16bar Cxxx Customized range						
0010	0...1bar 0250 0...25bar						
Option3: Pressure Type							
G	gauge						
A	absolute						
S	sealed gauge						
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						
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				
PM20S	0010	G	42	02	D	G4	Examples of Ordering Code: PM20S-0010-G-42-02-D-G4