

# 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 RS485, 4...20mA, 0-10VDC, 0-5VDC, 1-5VDC

### 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...0.01bar	●		
0...0.05bar	●		
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		●	

# Piezoresistive Pressure Transmitter

## Performance Specifications

Parameter	Value	Units	Notes
<b>General</b>			
Pressure Range	-1-0, ..., 0-0.1, ..., 600	bar	1bar=14.5psi
Overpressure	1.5xFS	bar	
<b>Environmental</b>			
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 <sup>6</sup>	cycles	
<b>Electrical @25°C(77°F)</b>			
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
<b>Performance</b>					
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



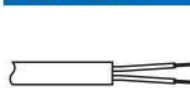
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

### Connector M12x1 (4-pin)



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

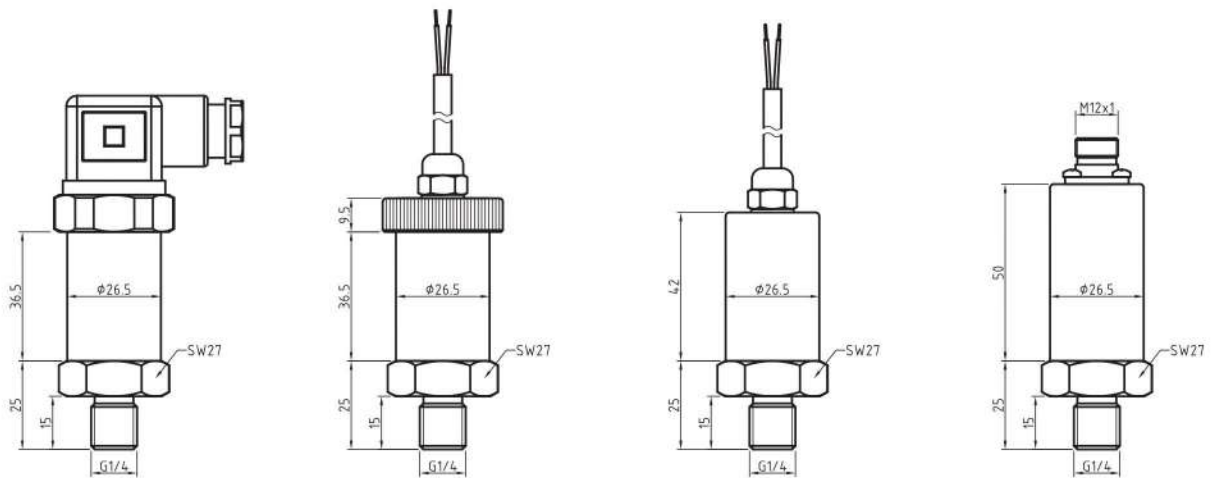
### Cable outlet



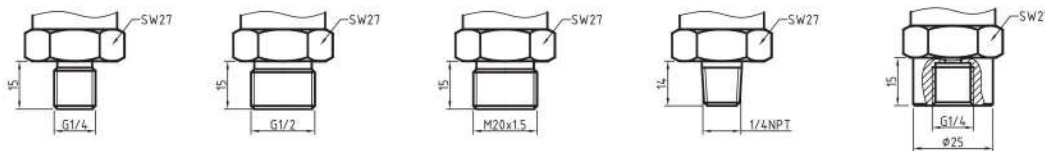
	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

# Piezoresistive Pressure Transmitter

## Dimensions (in mm)



## Mechanical Connection (in mm)



## Ordering Information

Option1: Model							
PM20S	Piezoresistive Pressure Transmitter						
Option2: Pressure Ranges							
N001	-1...0bar						
N002	-0.35...0bar						
N003	-0.2...0bar						
0001	0...0.01bar						
0002	0...0.05bar						
0004	0...0.35bar						
0005	0...0.5bar						
0007	0...0.7bar						
0010	0...1bar						
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						
485	RS485						
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

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