

Model PM20T

For High Temperature Applications



Product Overview

PM20T is made from high temperature silicon piezoresistive sensor chip. The piezoresistive sensor chip is packaged in a fluid-filled cylindrical cavity and isolated from measured media by a stainless steel diaphragm and housing. The measured media is transferred onto sensor through heating cooling parts, and high accuracy amplified circuit board is in stainless steel housing, transmitting sensor signal into standard output signal.

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

Applications

- Process control systems
- Hydraulic systems and valve
- Machine building
- Steam and heat exchange

Features

- Measuring ranges from 350mbar to 600bar
- Absolute, gauge and sealed gauge
- Accuracy: $\pm 0.25\%$ FSO or $\pm 0.5\%$ FSO
- Calibrated and temperature compensated
- Stainless steel construction
- Wider operation temperature range
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and others

Standard Pressure Ranges

Nominal pressure	gauge	sealed gauge	absolute
-1...0bar	●		
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,...,0-0.35,...,600	bar	1bar=14.5psi
Overpressure	1.5xFS	bar	
Environmental			
Medium Temperature Range	0 to +150(standard), 0 to +300	°C	32°F to 302°F
Compensated Temperature Range	-10 to +70	°C	14°F to 158°F
Environment Temperature Range	-20 to +85	°C	-4°F to 185°F
Vibration	10	g	20 to 2000Hz
Shock	100	g	10ms
Cycles	10 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.355g

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

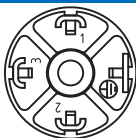
Notes

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)



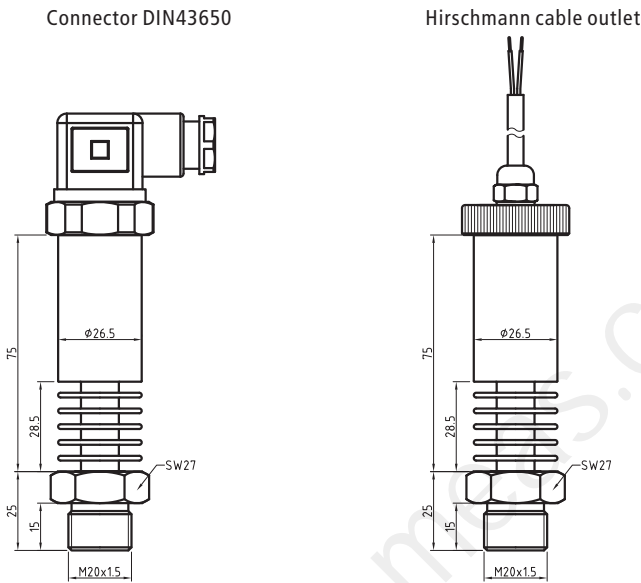
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

Cable outlet

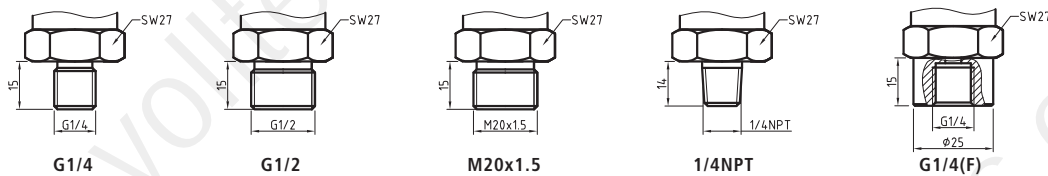


	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

Dimensions (in mm)



Mechanical Connection (in mm)



Ordering Information

Option1: Model	
PM20T	High-Temperature Pressure Transmitter
Option2: Pressure Ranges	
N001	-1...0bar
0003	0...0.35bar
0007	0...0.7bar
0010	0...1bar
0016	0...1.6bar
0025	0...2.5bar
0040	0...4bar
0060	0...6bar
0100	0...10bar
0160	0...16bar
0250	0...25bar
0600	0...60bar
1000	0...100bar
2500	0...250bar
4000	0...400bar
6000	0...600bar
Cxxx	Customized range
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
-	-
-	-
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
PM20T	0010 G 42 02 D G4 Examples of Ordering Code: PM20T-0010-G-42-02-D-G4