

# Model PM20G

## For General Industrial Applications



### Product Overview

The PM20G is based on MEMS technology (micro-electromechanical system). Through high temperature, silicon strain gauge is sintered on 17-4PH stainless steel sensor elastomer, which is integrated with the pressure connector.

This model provides a very high long-term stability. The transmitter is featured with no O-ring, free of leakage risks. 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
- Automatic testing system
- Hydraulic systems and valve
- Machine building
- Pumps and compressors

### Features

- Measuring ranges from 5bar to 600bar
- Absolute, gauge
- Accuracy:  $\pm 0.5\%$ FSO or  $\pm 1.0\%$ FSO
- Calibrated and temperature compensated
- Stainless steel mono-block construction
- Advanced microfused silicon strain gauge
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and others

### Standard Pressure Ranges

Nominal pressure	gauge	sealed gauge	absolute
0...5bar	●		●
0...10bar	●		●
0...16bar	●		●
0...25bar	●		●
0...40bar	●		●
0...60bar	●		●
0...100bar	●		●
0...160bar	●		●
0...200bar	●		●
0...250bar	●		●
0...300bar	●		●
0...400bar	●		●
0...500bar	●		●
0...600bar	●		●

Other pressure ranges available. Please consult the factory.

**Performance Specifications**

Parameter	Value	Units	Notes
<b>General</b>			
Pressure Range	0-5,...,600	bar	1bar=14.5psi
Overpressure	3xFS	bar	
<b>Environmental</b>			
Operating Temperature Range	-20 to +85	°C	-4°F to 185°F
Compensated Temperature Range	-20 to +85	°C	-4°F to 185°F
Storage Temperature Range	-40 to +105	°C	-40°F to 221°F
Vibration	20	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    0...10Vdc    0.5...4.5Vdc(ratiometric)		
Power Supply(Vs)	9...30Vdc    9...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 17-4PH stainless steel
Housing	304 stainless steel
Diaphragm	17-4PH stainless steel
Seal Ring	/
Oil Filling	/
Protection	IP65
Net Weight	Approx.220g

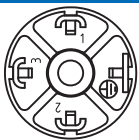
Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Performance</b>					
Accuracy		0.5	1.0	%FSO	1,2
Temp Coeff - Zero		±0.02	±0.03	%FSO/°C	3
Temp Coeff - Span		±0.02	±0.03	%FSO/°C	3
Long-Term Stability		±0.3	±0.5	%FSO/year	1

**Notes**

1. All values measured at 25°C(77°F)
  2. Including non-linearity, hysteresis and repeatability.
  3. -20°C to 85°C(-4°F to 185°F) with reference to 25°C(77°F).
- The listed specifications and dimensions are subject to change without prior notice.

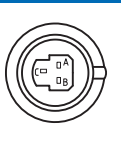
**Connection Diagrams**

**Connector DIN43650**



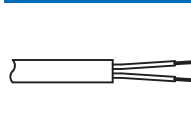
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

**Packard Connection**



	2-wire(current)	3-wire(voltage)
Supply+	A	A
Signal+	B	C
Gnd	-	B

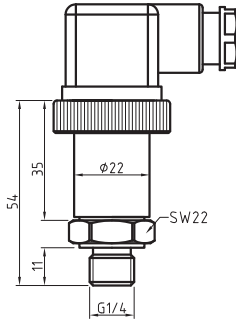
**Cable outlet**



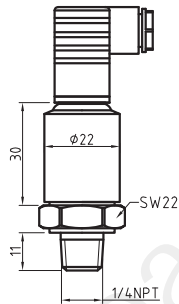
	2-wire(current)	3-wire(voltage)
Supply+	red	red
Signal+	black	green
Gnd	-	black

**Dimensions (in mm)**

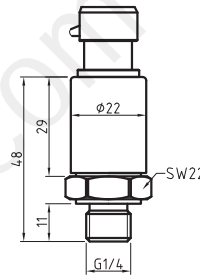
Connector DIN43650



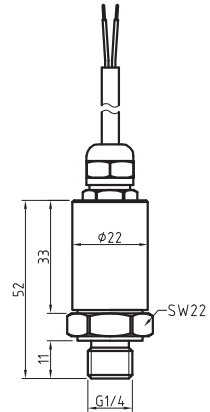
Connector Mini-Hirschmann



Packard connection



Cable outlet



**Ordering Information**

<b>Option1: Model</b>							
PM20G	Silicon Strain Gauge Pressure Transmitter						
<b>Option2: Pressure Ranges</b>							
0050	0...5bar	2000	0...200bar				
0100	0...10bar	2500	0...250bar				
0160	0...16bar	3000	0...300bar				
0250	0...25bar	4000	0...400bar				
0400	0...40bar	5000	0...500bar				
0600	0...60bar	6000	0...600bar				
1000	0...100bar	Cxxx	Customized range				
<b>Option3: Pressure Type</b>							
G	gauge						
A	absolute						
-	-						
<b>Option4: Output Signal</b>							
42	4...20mA						
05	0...5Vdc						
10	0...10Vdc						
45	0.5...4.5(ratiometric)						
-	-						
<b>Option5: Accuracy</b>							
05	0.5%FSO						
10	1.0%FSO						
<b>Option6: Electrical Connection</b>							
D	Connector DIN43650						
H	Connector Mini-Hirschmann						
C	Packard connection						
M	Cable outlet with PVC-cable,length=1.5m						
<b>Option7: Mechanical Connection</b>							
M2	M20x1.5(male)	N4	1/4NPT(male)				
G4	G1/4(male)	U7	7/16-20UNF(male)				
G2	G1/2(male)	Nx	Customized				
PM20G	0160	G	42	05	D	G4	Examples of Ordering Code: PM20G-0160-G-42-05-D-G4

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