

# Model PM241

## For Air Compressors



### Product Overview

The PM241 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 HVAC controls and air compressors.

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
- Air compressors

### Features

- Measuring ranges from 5bar to 100bar
- 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	●		●

Other pressure ranges available. Please consult the factory.

**Performance Specifications**

Parameter	Value	Units	Notes
<b>General</b>			
Pressure Range	0-5,...,100	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

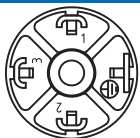
Parameter	Minimum	Typical	Maximum	Units	Notes
<b>Performance</b>					
Accuracy		0.5	1.0	%FSO	1,2
Temp Coeff - Zero		±0.02	±0.03	%FSO/°C	3
Temp Coeff - Span		±0.02	±0.03	%FSO/°C	3
Long-Term Stability		±0.3	±0.5	%FSO/year	1

**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.

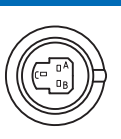
**Connection Diagrams**

**Connector DIN43650**



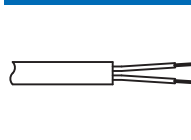
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2

**Packard Connection**



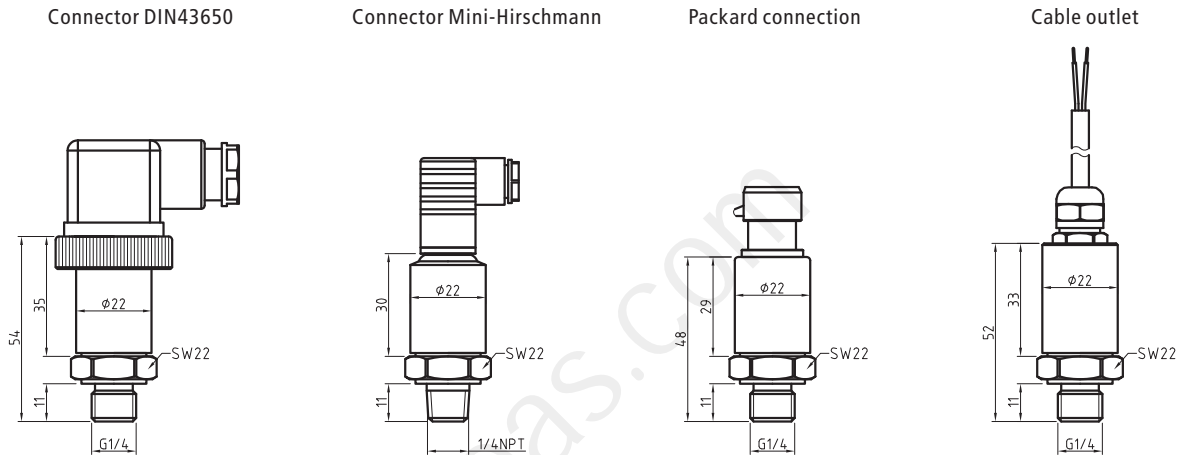
	2-wire(current)	3-wire(voltage)
Supply+	A	A
Signal+	B	C
Gnd	-	B

**Cable outlet**



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

Dimensions (in mm)



Ordering Information

<b>Option1: Model</b>							
PM241	Silicon Strain Gauge Pressure Transmitter						
<b>Option2: Pressure Ranges</b>							
0050	0...5bar	Cxxx	Customized range				
0100	0...10bar						
0160	0...16bar						
0250	0...25bar						
0400	0...40bar						
0600	0...60bar						
1000	0...100bar						
<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				
PM241	0160	G	42	05	D	G4	Examples of Ordering Code: PM241-0160-G-42-05-D-G4

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