

Model M5100

Heavy Industrial - High EMI Rated

Description

The M5100 series from SENSYS sets the price / performance standard for transducers used in demanding environments. The M5100 exceeds the latest heavy industrial CE requirements including surge protection, and is over voltage protected to 16VDC in both positive and reverse polarity. The pressure port is machined from a solid piece of 17-4PH stainless steel(316L optional). There are no O-rings, organics or welds exposed to the pressure media. This allows for a leak proof, all-metal sealed pressure system which withstands more than 10 million pressure cycles without failure.

Features

- ▶ Heavy Industrial CE Approval
- ▶ 100V/m EMI Protection
- ▶ Reverse Polarity Protection
- ▶ Extended temperature range
- ▶ 1% Total Error Band
- ▶ Compact Outline
- ▶ -40 to 125°C

Applications

- ▶ Advanced HVAC Controllers
- ▶ Refrigeration Systems
- ▶ Automotive Test Stands
- ▶ Gas compressors
- ▶ Industrial process control
- ▶ Pumps and Compressors
- ▶ Hydraulic/Pneumatic
- ▶ Agriculture Equipment
- ▶ Energy and Water Management



Specifications

Range

3.5, 7, 10, 20, 35, 70, 200, 350, 700 bar

Performance

Accuracy	$\pm 0.5\%FS(RSS)$		
Thermal Effect on Zero	$\pm 0.03\%FS/^{\circ}C$		
Thermal Effect on Span	$\pm 0.03\%FS/^{\circ}C$		
Compensated Temperature Range	$-20 \sim 85^{\circ}C$		
Operating Temperature Range	$-40 \sim 125^{\circ}C$ / $-40 \sim 85^{\circ}C(4\sim 20mA)$		

Electrical

Excitation	4.75~5.25VDC	8~30VDC	15~30VDC	9~30VDC
Output	0.5~4.5VDC	1~5VDC	0~5VDC	0~10VDC
Electrical Connection	Cable, Packard Connector, Mini Din Connector			

Physical

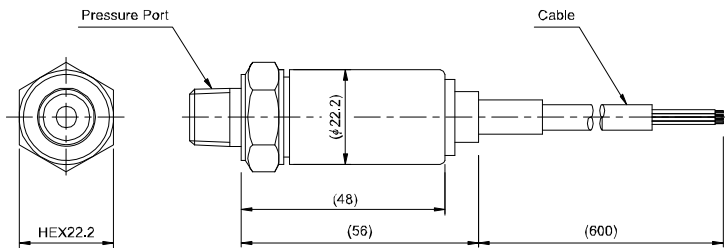
Proof Pressure	200%FS Max.
Burst Pressure	500%FS Min.
Vibration	20G at 20 to 200Hz
Shock	200G / 11ms
Media-Wetted Materials	Stainless Steel 630 (316L optional)
Weight	Mini Din Connector type : Approx. 85g (Sensor Only)

CE compliant per the following specification

EN55022 Emission Class A & B
 IEC61000-4-2 Electrostatic Discharge Immunity(6kV contact/8kV air)
 IEC61000-4-3 EM Field Immunity(30V/m)
 IEC61000-4-4 Electrical Fast Transient Immunity(1kV)
 IEC61000-4-5 Surge(1kV)
 IEC61000-4-6 Conducted Immunity(10V)
 IEC61000-4-9 Pulsed Magnetic Field Immunity(100A/m)

Dimension

► Cable Type

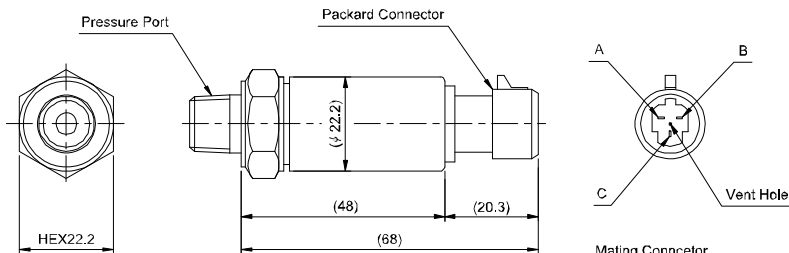


Vent Through Cable (Under 70bar)

Max Operating Temperature for Cable is 100°C

Wire Color	Connections	
	V Output	mA Output
Red	Input ⊕	Input ⊕
Black	Common ⊖	Output ⊕
Green	Output ⊕	×

► Packard Connector Type

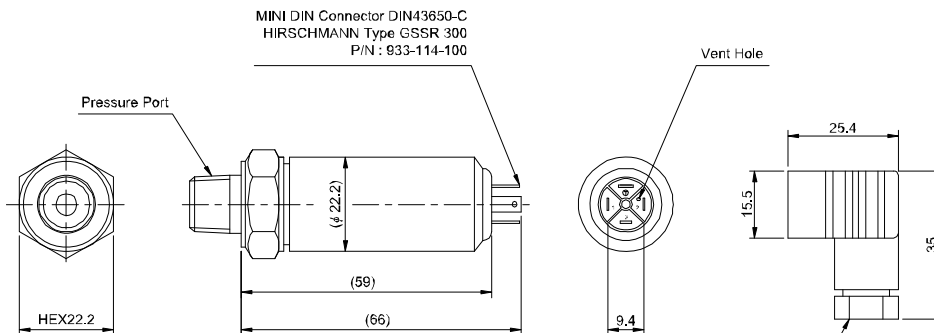


Vent Through Hole in Connector (Under 70bar)

Mating Connector
 Housing P/N : 12078090
 Pin P/N : 12103881-L

Pin No.	Connections	
	V Output	mA Output
A	Input ⊕	Input ⊕
B	Common ⊖	Output ⊕
C	Output ⊕	×

► Mini DIN Connector Type



Vent Through Hole in Connector (Under 70bar)

Mating Connector
 P/N : 933 024-100
 Gasket P/N : 730 185-002

Pin No.	Connections	
	V Output	mA Output
1	Input ⊕	Input ⊕
2	Output ⊕	Output ⊕
3	Common ⊖	×
⊥	Earth	×

Ordering Information

		M	5	1	3	1	-	0	0	0	0	5	-	0	1	0	B	G		
Model Name																			Type of Pressure	
																			G : Gauge	
Output																			Pressure Unit	
3 : 0.5~4.5V																			B : bar	
4 : 1~5V																			P : psi	
5 : 4~20mA																				
6 : 0~5V																				
7 : 0~10V																				
Connection																			Pressure Range	
1 : Cable																			3.5 : 0~3.5bar	
4 : Packard Metripak 150																			007 : 0 ~7bar	
6 : Mini-Hirschman DIN43650 ind C																			010 : 0~10bar	
																			020 : 0~20bar	
																			035 : 0~35bar	
																			070 : 0~70bar	
																			200 : 0~200bar	
																			350 : 0~350bar	
																			700 : 0~700bar	
Options																				
Pressure port																				
2 : G1/4(PF1/4)																				
4 : 7/16-20 UNF Male, O-ring																				
5 : 1/4-18 NPT																				
P : 7/16-20 female																				
X : R1/4(PT1/4)																				