

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
- ▶ 0.5%FS accuracy
- ▶ 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	±0.5%FS(RSS)
Thermal Effect on Zero	±0.05%FS/°C
Thermal Effect on Span	±0.05%FS/°C
Compensated Temperature Range	-20 ~ 85°C
Operating Temperature Range	-40 ~ 125°C

Electrical

Excitation	4.75~5.25VDC	8~30VDC	15~30VDC	9~30VDC	
Output	0.5~4.5VDC	1~5VDC	0~5VDC	0~10VDC	4~20mA(2Wire)
Insulation Resistance	1MΩ @25VDC				
Electrical Connection	Cable, Packard Connector, Mini Din Connector				

Physical

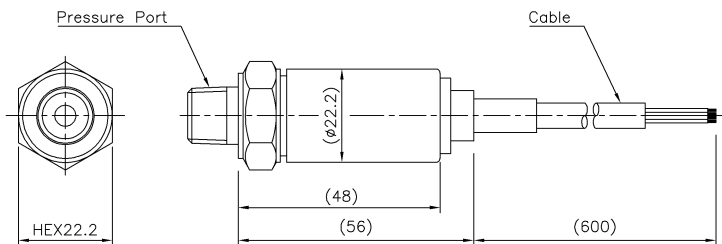
Proof Pressure	200%FS Max.
Burst Pressure	500%FS Min.
Vibration	20G at 20 to 200Hz
Shock	50G / 11ms
Media-Wetted Materials	Stainless Steel 630
Weight	Mini Din Connector type : Approx. 85g (Sensor Only)

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

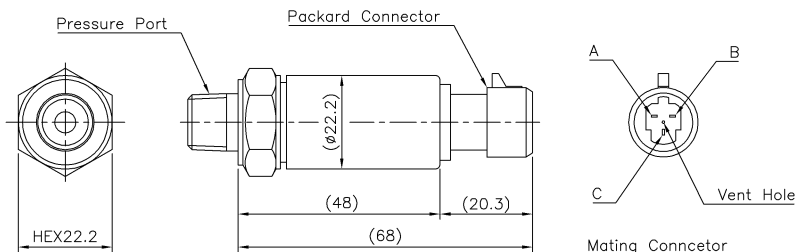
► Cable Type



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 ⊕	x

► Packard Connector Type

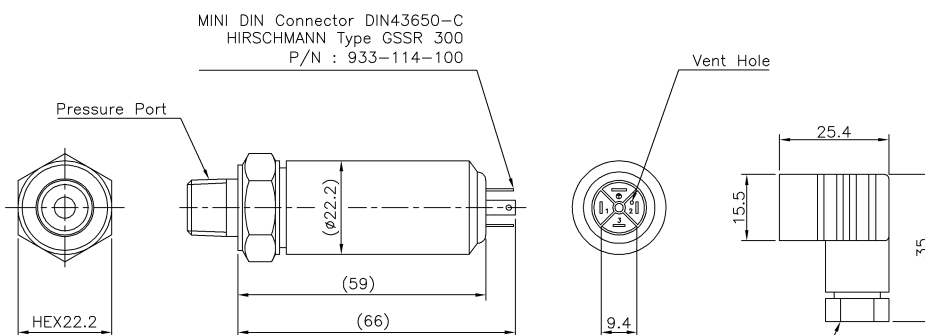


Vent Through Hole in Connector (Under 70bar)

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 ⊕	x

► 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 ⊖	x
⊕	Earth	x

Ordering Information

Model Name	M51	3	1-00000	5-010	B	G	Type of Pressure
Output							G : Gauge
3 : 0.5~4.5V							
4 : 1~5V							
5 : 4~20mA							
6 : 0~5V							
7 : 0~10V							
Connection							Pressure Unit
1 : Cable							B : bar
4 : Packard Metripak 150							P : psi
6 : Mini-Hirschman DIN43650 ind C							
Options							Pressure Range
Pressure port							3.5 : 0~3.5bar
2 : G(PF)1/4							007 : 0 ~7bar
4 : 7/16-20 UNF Male, O-ring							010 : 0~10bar
5 : 1/4-18 NPT							020 : 0~20bar
P : 7/16-20 female							035 : 0~35bar
X : R(PT)1/4							070 : 0~70bar
							200 : 0~200bar
							350 : 0~350bar
							700 : 0~700bar