

# 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

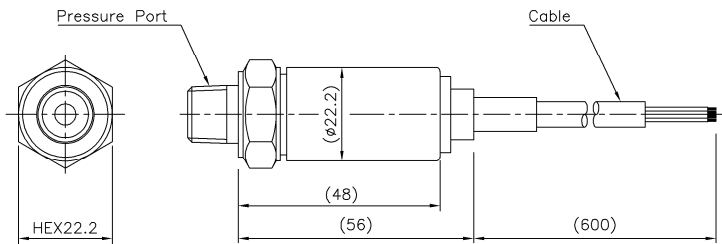
Proof Pressure	200%FS Max.
Burst Pressure	500%FS Min.
Vibration	20G at 20 to 200Hz
Shock	50G / 11ms
Media-Wetted Materials	Stainless Steel 630
Weight	Mini Din Connector type : Approx. 85g (Sensor Only)

## 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

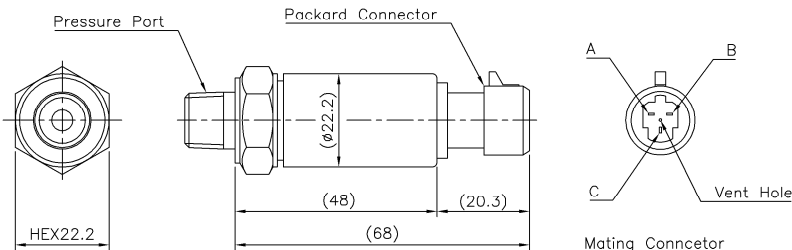
### ► Cable Type



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 ⊕	×

### ► Packard Connector Type

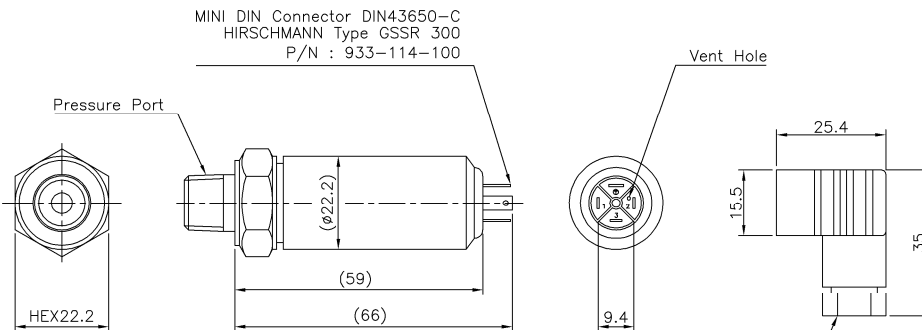


Vent Through Hole in Connector (Under 70bar)

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