

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

Total Error Band

±1%FS over compensated range
(±1.5% typical over extended range contact factory)

Compensated Temperature Range

-20 ~ 85°C

Operating Temperature Range

-40 ~ 125°C

-40 ~ 85°C (4~20mA)

Physical

Proof Pressure

200%FS Max.

Burst Pressure

500%FS Min.

Vibration

20G at 20 to 200Hz

Shock

200G / 11ms

Media-Wetted Materials

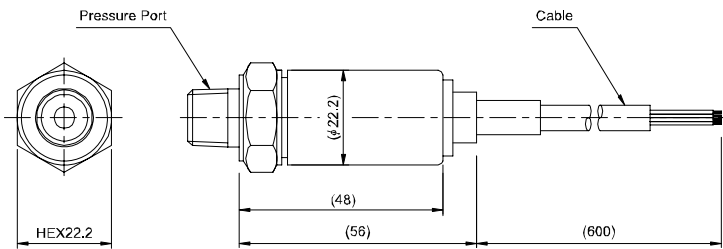
Stainless Steel 630 (316L optional)

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)
 Automotive EM field immunity 100V/m 80MHz to 1GHz

Dimension

► Cable Type

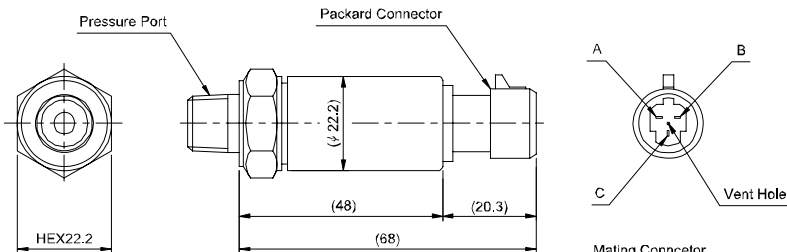


Vent Through Cable (Under 70bar)

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

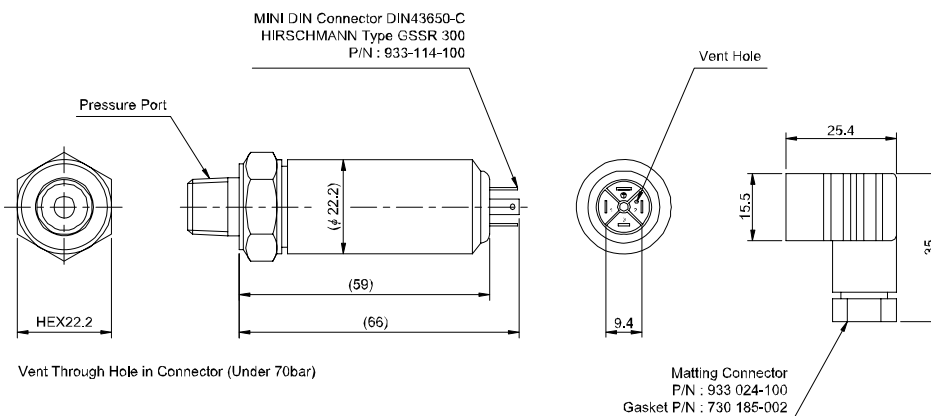


Vent Through Hole in Connector (Under 70bar)

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

Model	Output	Connection	Options	Pressure Port	Pressure Range/Units	Pressure Reference	
M51	3=0.5~4.5V	1=60cm Cable	00000	2=G1/4(PF1/4)	3.5B=3.5bar	050P=50psi	G=Gauge S=Sealed
	4=1~5V	4=Packard		4=7/16-20 UNF	007B=7bar	100P=100psi	
	5=4~20mA	Metripak 150		Male, O-ring	010B=10bar	200P=200psi	
	6=0~5V	6=Mini-Hirschman	W=316L	5=1/4-18 NPT	020B=20bar	300P=300psi	
	7=0~10V	DIN43650 ind C	wetted material	P=7/16-20 female	035B=35bar	500P=500psi	
			Fill options	X=R1/4(PT1/4)	070B=70bar	01KP=1000psi	
			alphabetically		200B=200bar	03KP=3000psi	
			from left		350B=350bar	05KP=5000psi	
					700B=700bar	10KP=10000psi	
	X=Special Output	X=Special Connector	1nnnn=Custom Drawing Number	X=Special Port			

※ Consult factory for special options or non-standard part number

Output Options

Code	Output	Supply
3	0.5 ~ 4.5V at 5V(ratiometric)	4.75 ~ 5.25V
4	1 ~ 5V	8 ~ 30V
5	4 ~ 20mA	9 ~ 30V
6	0 ~ 5V	8 ~ 30V
7	0 ~ 10V	15 ~ 30V