



SH308-M series Pressure Transmitter

General Information

SH308-M series pressure transmitter uses monocrystalline silicon sensor chip that made of advanced MEMS technology. So it achieves the world's leading overpressure performance and also ensures excellent signal stability. Built-in manometry capsule and signal processing module that can achieve the perfect combination of pressure and temperature compensation, which provides high measurement accuracy and stability under a wide range of static pressure and temperature. SH308-M smart pressure transmitter can measure pressure and convert it into 4~20mA output signal. This transmitter can be operated through three buttons locally or through universal communicator or configuration software remotely. Without affecting the output signal of 4 ~ 20mA, it can display at the same time.

Applications

Be suitable to measure liquid, gas or steam flow as well as liquid level, density and pressure

Process control systems

Chemical industry

Energy industry

Machine building

Features

- Overload pressure up to 50 Mpa
- Excellent overvoltage performance
- Flexible range of compression
- Range ratio up to: 100:1
- Excellent operability & convenient use
- Five-digit with backlight
- View of units (Pa, kPa, MPa, bar, mbar, %, psi, mmH2O)
- Quickly adjusted through built-in three buttons

Pressure Sensor Range & URL

Range	Type	Min	Max	Lower Limit	Overpressure
0-1KPa	Gauge pressure	0.1KPa	1KPa	-1KPa	200KPa
0-6KPa	Gauge pressure	0.6KPa	6KPa	-6KPa	200KPa
0-40KPa	Gauge pressure	4KPa	40KPa	-40KPa	1 MPa
	Absolute Pressure	10KPa	40KPa	0	1 MPa
0-250KPa	Gauge pressure	25KPa	250KPa	-100KPa	4MPa
	Absolute Pressure	10KPa	250KPa	0	4MPa
0-3MPa	Gauge pressure	150KPa	3MPa	-100KPa	15MPa
	Absolute Pressure	30KPa	3MPa	0	15MPa
0-10MPa	Gauge pressure	0.5MPa	10MPa	-100KPa	20MPa
0-40MPa	Gauge pressure	2MPa	40MPa	-100KPa	50MPa

Electrical Specifications

Output signal:	DC HART 4~20mA with digital signal based on Protocol
Load resistance:	0~600Ω (24V)
Power Supply	10-32V, HART needs≥18.5V
Load capacity:	0.55mF
Load inductance:	3.3mH
Spacing above power line:	15cm(please avoid parallel wiring)
Saturation current:	upper limit 20.8mA,lower limit 3.8mA
Alarm current:	upper limit 22.8mA,lower limit 3.6mA(Mode can be set)
Adjustment function:	The zero & full span point can be adjustedthrough three-button from the top of the housing or be adjusted remotely through configuration software.

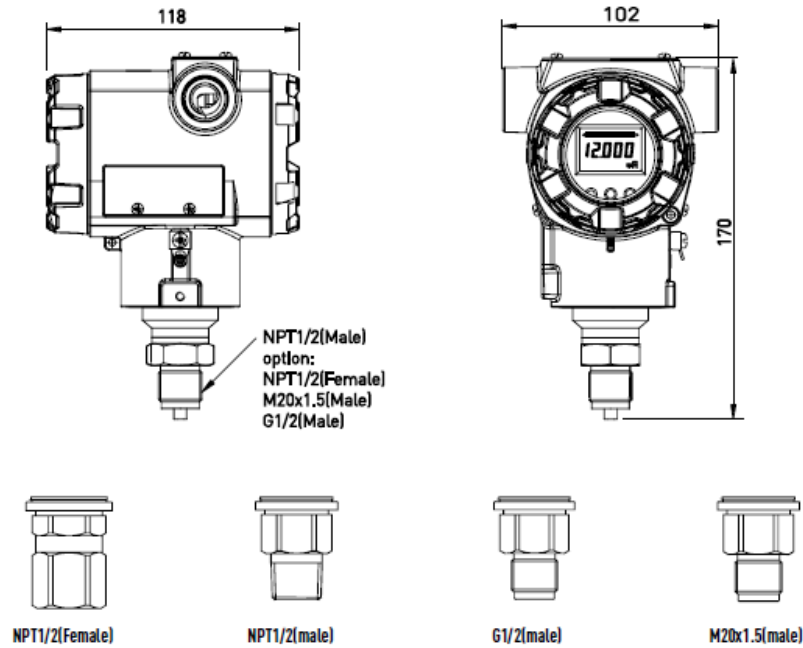
Performance Specifications

Environmental temp.:	-40...+85°C (when filling fluorine oil: -10...+60°C)
Storage temperature:	-40...+90°C
Weatherability:	DIN 40040GPC
EMC applicable standard:	EN1326-1:2006
Accuracy:	0.075%, 0.1%
Effect of environment temperature	≤ ±0.1% F.S./10 °C
Effect of static pressure:	N/A
Effect of overpressure:	±(0.1%range)/1 MPa
Stability:	±0.2%upper limit of range/year
Effect of power supply:	±0.005%/1V
Effect of mounting position:	The changes of mounting position in the direction parallel to the diaphragm will not cause zero- drift effects. If the changes between the mounting position and the diaphragm is more than 90°, which can be corrected through zeroing corrected within the range of 0.4 KPa.
Response time:	0.25 s
Damp:	The time constant can be adjusted from 0 to 99.9 seconds

Physical Specification

Sensor	Monocrystalline silicon sensor
Isolated diaphragm:	SUS316 L,Hastelloy C-276
Installed plywood:	SUS316SS
Housing of transmitter:	low copper aluminum die casting + polyurethane coating
Ingress protection:	IP65/ IP67
Filling oil:	silicone oil or fluorocarbon oil
Process connectionport:	G1/2,1/2NPT,M20x1.5.,etc
Installation:	U-bolt mounted on 50mm (2-inch) pipe, or on the wall(depend on the model specification)
Weight:	about 1 4~1.6kg

Dimension (mm)



Model Selection

Item	Code	Description
Type	A	4-20mA Output/2 wire
	S	4-20mA & Hart Protocol / 2 wire
	R	MODBUS,RS485
Product	SH308	Pressure transmitter
Sensor type	M	Monocrystalline silicon sensor
Pressure type	A	Absolute pressure
	G	Gauge Pressure
Digital display	3	Digital Display
Measuring range & pressure type	1	0~1 Kpa G
	2	0~6 Kpa G
	3	0~40Kpa G/A
	4	0~250Kpa G/A
	5	0~3Mpa G/A
	6	0~10Mpa G
	7	0~40Mpa G
Process connections	1	M20* 1.5 (M)
	2	1/2"NPT (M)
	4	1/2"NPT (F)
	5	G1/2 (M)
	3	Others(please specify)
Explosion proof	N	Non explosion proof
	I	Intrinsically safe Exia II CT6
	E	Explosion proof Exd II CT6
Wet part diaphragm material	22	SUS 316L (Std.)
	23	Hastelloy C
	26	SUS 316L gold plating
	X	Others
Ingress protection:	P5	IP65
	P7	IP67
Others (options)	T	Tri-clamp connection (specify size)
	R	High Temp. Radiator:R1=150°C;R2=250°C;R3=350°C
	D	Diaphragm seals (specify size and Type)