



# SH 308 Series Diffusive Silicon Pressure Transmitter

## General Information

SH 308 series Diffusive silicon pressure transmitters choose imported silicon piezoresistive sensor components , and employ dedicated integration module , through fine temperature shift, zero and non-linearity compensation to realize accurate measurement of liquid, gas and steam.

## Features

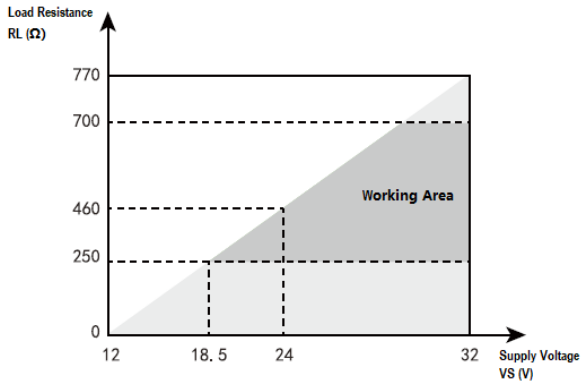
- Employing hi-quality sensor and exclusive V/I integrated circuit, little peripheral device, high reliability, simple and easy maintenance.
- Little volume, slight weight, convenient installation and debugging
- We provide common type, corrosion-proof, intrinsically safe explosion-proof type and isolation explosion-proof type
- Aluminum die casting outer shell, tri-terminal isolation, hi-temperature baking lacquer protective cover, firm and durable
- 4~20mA DC two-wire system, strong interference-resistant ability, long transmitting distance
- Digital display available
- Can be applied to measure viscous, crystallized and corrosive mediums

## Technical Specification

Table 1

Sensor Type	Silicon piezoresistive sensor
Pressure type	Gauge pressure, absolute pressure, sealed gauge
Accuracy	0.1%, 0.2%, 0.5%
Measuring range	0~7Kpa .....70Mpa
Stability	$\leq \pm 0.2\%$ /URL (12 months)
Effect of mounting position:	Position effect can be adjusted by zero clean
Temperature drift	$\leq \pm 0.2\%$ F.S/10 °C
Response time	0.25s
Effect of power supply:	$\leq \pm 0.005\%$ /URL/V
Effect of vibration	$\leq \pm 0.25\%$ /URL/g
Temperature compensation	0-50 °C
Overload capacity	150% of full range

### Supply Voltage and Load Resistance



Load Resistance RL Calculation Formula:  
 $RL = (Vs - 12) / 0.026 \text{ (}\Omega\text{)}$   
 RL-Load Resistance value ( $\Omega$ )  
 Vs-Power Supply Voltage (V)

#### Operation Condition

Environmental temp.:	-40...+85°C (when filling fluorine oil : -10...+60°C)
Storage temperature:	-40...+85°C
Humidity	≤ 95% RH

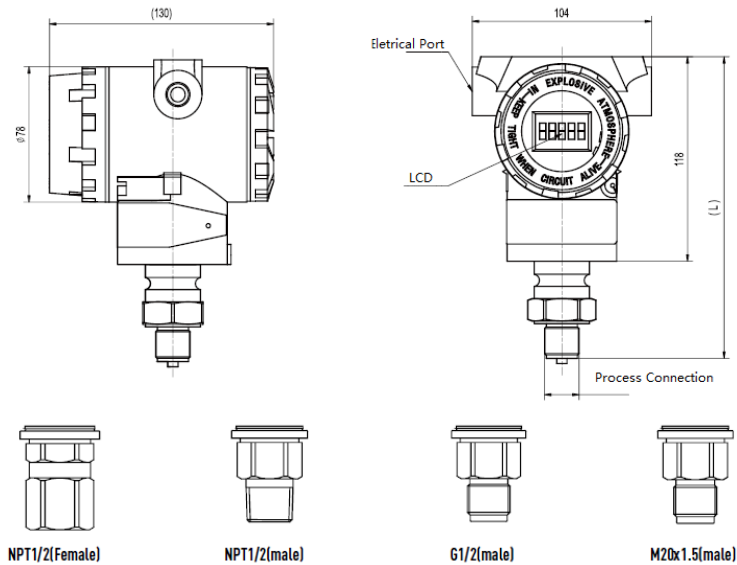
#### Transmitter Module

Output	4-20mA, 4-20mA+HART, MODBUS RS485
Display	LCD display
Power supply	10-32V, HART needs ≥18.5V
Diagnostic function	Output alarm current if instruments is broken
View of units	Pa, kPa, Mpa, bar, mbar, %, psi, mmH <sub>2</sub> O

#### Sensor Specifications

Sensor diaphragm material	SUS316L, Hastelloy C-276, Tantalum
Filling oil	Silicon oil
Sealing material	Fluororubber, EPDM
Process connection material	SUS304, SUS316L

### Dimension (mm)



## Model Selection

Table 2

Item	Code	Description
Type	A	4-20mA Output
	S	4-20mA Output & Hart Protocol
	R	Modbus RS485
Product	SH308	Pressure transmitter
Sensor type	A1	Diffusive silicon sensor
Pressure type	A	Absolute pressure
	G	Gauge Pressure
	Y	Sealed Gauge pressure (also for negative pressure)
Digital display	1	Without display
	3	Digital Display
Measuring range & pressure type	1	0-7 Kpa G/Y
	2	0-10 Kpa G/Y
	3	0-20 Kpa G/Y
	4	0-35 Kpa G/A/Y
	5	0-70 Kpa G/A/Y
	6	0-100 Kpa G/A/Y
	7	0-200 Kpa G/A/Y
	8	0-350 Kpa G/A/Y
	9	0-700 Kpa G/A/Y
	10	0-1Mpa G/A/Y
	11	0-2Mpa G/A/Y
	12	0-3.5Mpa G/A/Y
	13	0-7Mpa G/A/Y
	14	0-10Mpa G/A/Y
	15	0-20 Mpa G/A/Y
	16	0-35Mpa G/A/Y
	17	0-70 Mpa G/A/Y
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
	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)