

Pressure and Differential Transmitter with Flange Diaphragm



Direct Mount



Side Mount

General Information

SH Series flange type level transmitter can carry on accurate measurement of pressure, differential pressure, level and density for all kinds of containers. Flush flange and extended flange available, diaphragm seal direct contacts with medium without impulse line.

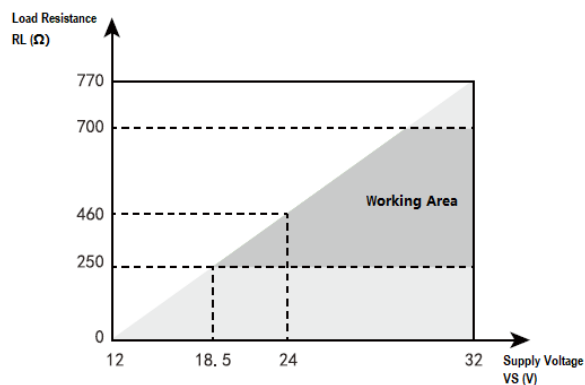
Features

- Application: open or sealed tank level
- Accuracy: 0.2%, 0.5%
- Measuring Range: 6Kpa ~20Mpa
- Measuring Type: Flush flange and extended flange
- Mounting: Direct mount and side mount

Technical Specification

Measurement	Pressure, differential pressure or level
Accuracy	0.2%, 0.5%
Measuring Range	0~20Mpa
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:

$$RL = (V_s - 12) / 0.026 \text{ (}\Omega\text{)}$$

RL-Load Resistance value (Ω)

Vs-Power Supply Voltage (V)

Operation Condition

Environmental temp.:	-40...+315°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 ₂ O

Sensor Specifications

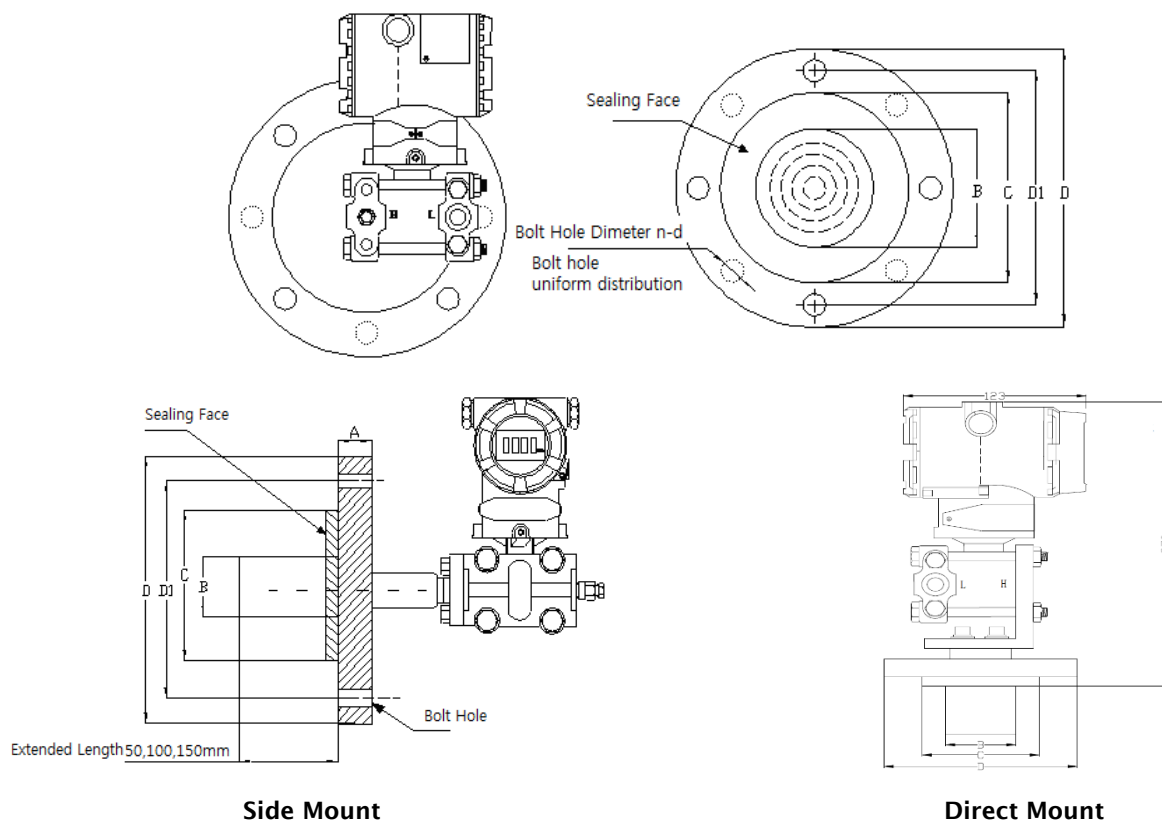
Sensor diaphragm material	SUS316L, Hastelloy C-276, Tantalum
Ingress protection:	IP65, IP67
Filling oil	Silicon oil, High Temp. silicon oil, fluorocarbon oil
Sealing material	Fluororubber (Std.), EPDM
Name plate material	SUS 304
Process connection material	SUS304(Std.), SUS316L

Model Selection

Code	Product
SH	Silver Transmitter
Code	Type
DP	Differential Pressure
GP	Gauge Pressure
Code	Measuring Range
4E	(0-6~40) Kpa
5E	(0-40~200) Kpa
6E	(0-0.16~1) Mpa
7E	(0-0.4~2.5) Mpa
8E	(0-1.6~8) Mpa
9E	(0-4~20) Mpa
Code	Accuracy
2	0.2%
3	0.5%
Code	Explosion Proof
P	Non explosion proof

Code	Product				
d	Explosion proof Exd II CT6				
i	Intrinsically safe Exia II CT6				
Code	Display				
M5	LCD display				
Code	Output				
E	(4-20mA) output				
S	(4-20mA) output & Hart Protocol				
R	Modbus RS485				
Code	Flange Size				
A	DN50/ 2"	E	DN25/1"		
B	DN80/3"	F	DN32/1.25"		
C	DN100/4"	G	DN40/1.5"		
D	Special	H	DN65/2.5"		
Code	Flange Standard & Rating				
1D	DIN, PIN16	1A	ASME, B16.5,150LB	1J	JIS, B2220:10K
2D	DIN, PN25	2A	ASME, B16.5,300LB	2J	JIS, B2220:20K
3D	DIN, PN40	3A	ASME, B16.5,600LB	3J	JIS, B2220:30K
4D	DIN, PN63	X	Others	4J	JIS, B2220:63K
Code	Flange Sealing Face				
A	RF -Raised Face (Std.)				
B	FM- Concave/female				
C	M- Convex/Male: M				
E	RJ- Ring connection surface				
Code	Extended Length				
L0	0 mm				
L1	50 mm				
L2	100 mm				
L3	150 mm				
L4	Special				
Code	Diaphragm Seal Material				
2	316L Stainless steel				
3	Hadtelloy Alloy C				
4	Monel				
5	Tantalum				
Code	Flange Material				
S4	SUS 304 (Std.)				
S6	SUS 316L				
Code	Mounting				
S	Side mounting (Std.)				
D	Direct mounting				
Code	Low Pressure Side Impulse connection				
C0	1/4"NPT (F)				
C1	1/2"NPT (F)				
C2	1/2"NPT (M)				
C3	M20×1.5 (M)				

Dimension (mm)



SHLT Flange type level Transmitter Dimensions

No.	Flange Size	Flange size			Thickness A(mm)	No. n	Bolt Hole	
		OD D(mm)	ID B(mm)	Seal Face C(mm)			Diameter d(mm)	Bolt Circle D1(mm)
1	2"/DN50	165	48	95	20	4	18	120
2	3"/DN80	200	66	127	22	8	18	152
3	4"/DN100	220	89	157	22	8	18	191