

Model SMA(Differential pressure for Liquid)

Compact Size(30X30mm) Digital Differential Pressure Gauge / Switch

유체용 디지털 차압계/스위치

Description

Model SMA(DL) is a Digital Differential Pressure Gauge/Switch designed with a diaphragm of SS316L to operate with any liquid and gas. It contains Microprocessor in default. Moreover, it features 4-digit LED Display, Analog Output such as 0~5, 1~5, 0~10VDC or 4~20mA, Switching Output 2-Channel NPN or PNP Open Collector. This compact model is fully integrated with Pressure Sensor, Indicator and Switch.

Features

- ▶ CE Certified
- ▶ Compact design(30mm×30mm)
- ▶ ±1999 Digit LED display
- ▶ Measuring range : 5kPa ... 3.5MPa
- ▶ 1~5, 0~5, 0~10VDC or 4~20mA analog output
- ▶ 2-Channel NPN or PNP open collector output
- ▶ Piezoresistive silicon cell
- ▶ Stainless steel media-wetted materials

Applications

- ▶ Corrosive Fluid and Gas Measurement Systems
- ▶ Liquid Level Controls
- ▶ Tank Level Measurement
- ▶ Leak Tester System

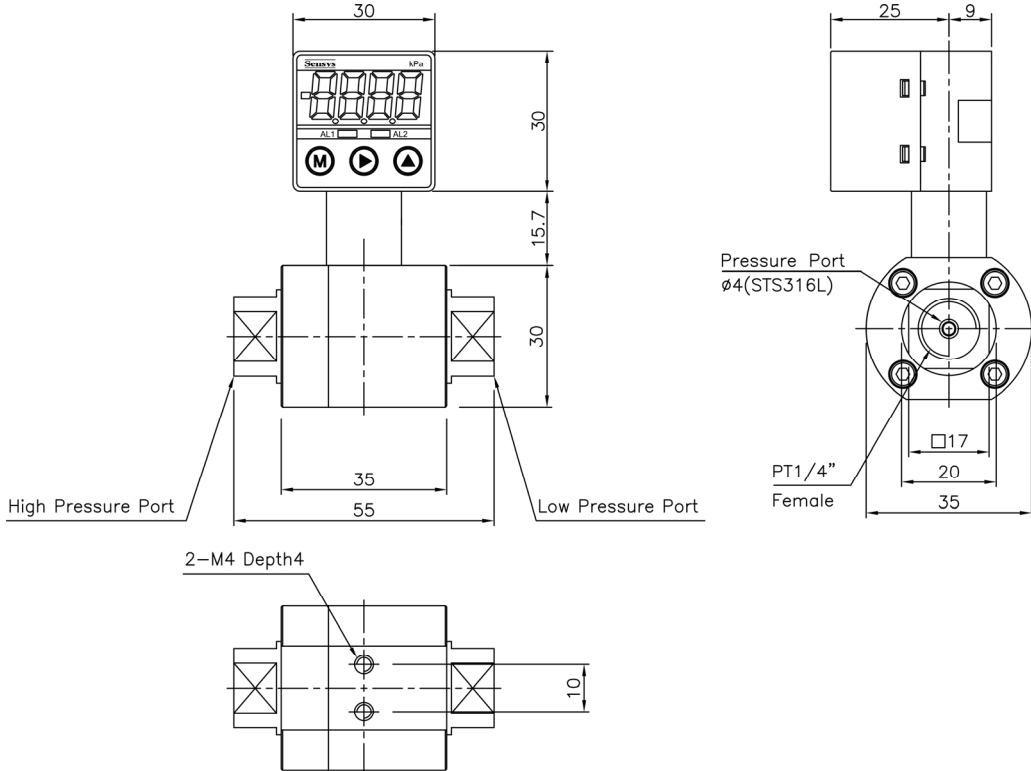


Specifications

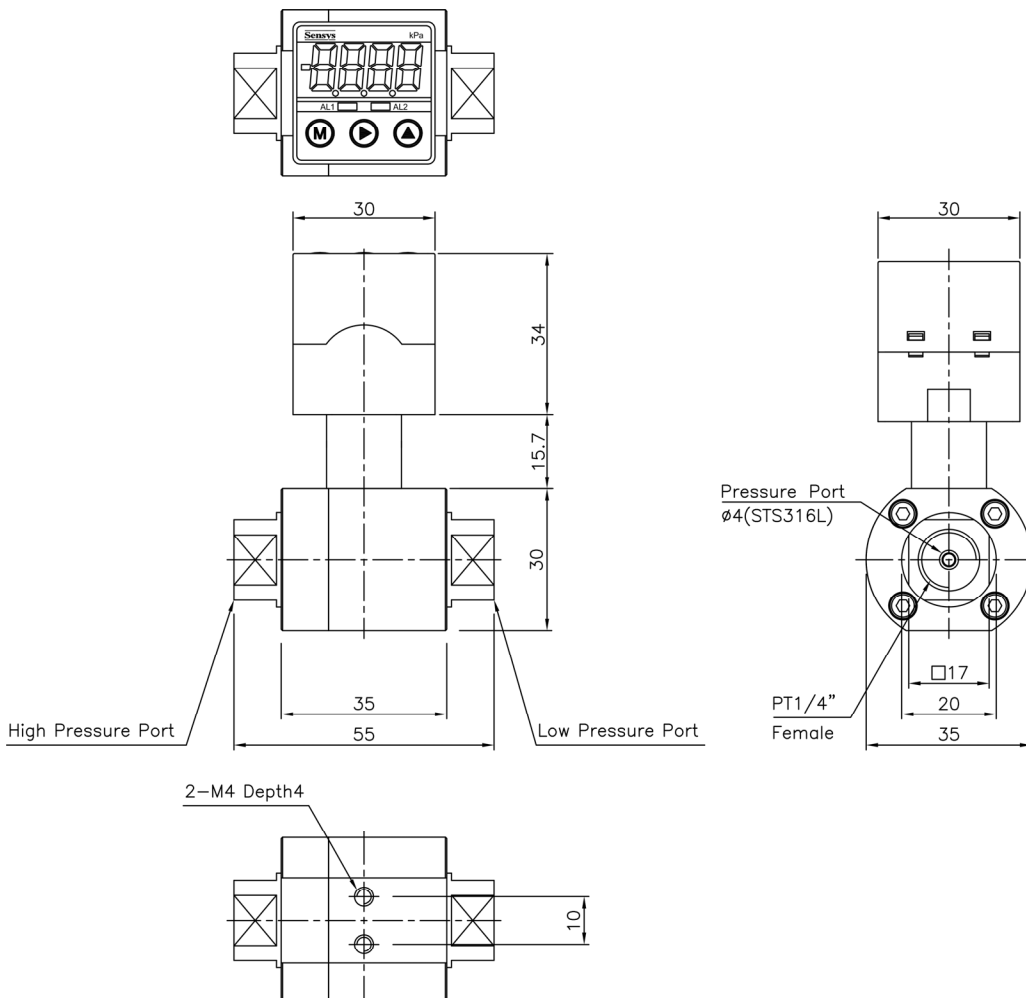
	SMA □ / □	SMA □ / □
Range	0~5kPa ... 3.5 MPa	0~100kPa ... 2.5 MPa
Performance		
Display Accuracy	±0.5%FS (25°C)	±0.8%FS (25°C)
Thermal Effect	±3%FS (0~50°C)	±3%FS (0~50°C)
Operating Temperature Range	-20~80°C	
Electrical		
Display	LED(Red Color) ±1999 Digit	
Excitation	12~24VDC±10%(Ripple P-P Max. 10%)	
Output		
Switching Signal	2-Channel NPN or PNP open collector output	
Analog Signal	1~5, 0~5, 0~10VDC(±2%FS) or 4~20mA(±2%FS)	
Response Time	2.5, 20, 100, 500, 1000, 2000ms	
Physical		
Proof Pressure	Positive Pressure 300%FS Max. Negative Pressure 300%FS Max.	Positive Pressure 200%FS Max. Negative Pressure 100%FS Max.
	(For high-end port, rated or 7MPa whichever is less; for low-end port, rated or 1MPa whichever is less.)	
Line(Common Mode) Pressure	7MPa	
Pressure port	R(PT)1/4"(F), UNF 7/16(Flare Fitting)	
Media-Wetted Materials	Stainless Steel 316L, VITON	

Dimension

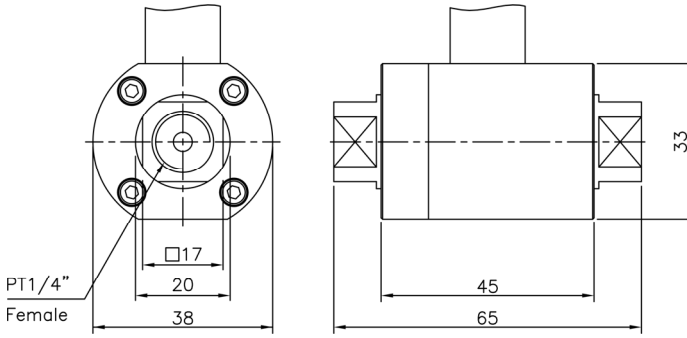
► SMAE (Liquid / Differential Pressure / Accuracy 0.5%FS / Vertical installation Type)



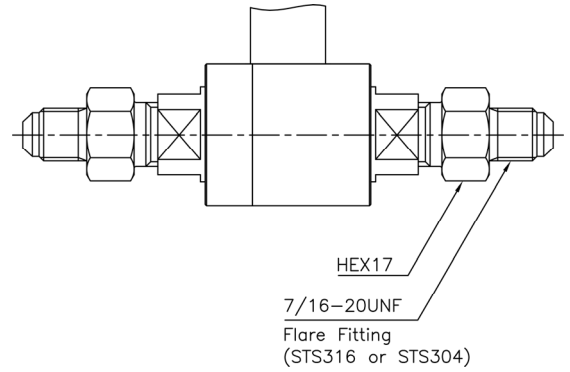
► SMAF (Liquid / Differential Pressure / Accuracy 0.5%FS / Horizontal installation Type)



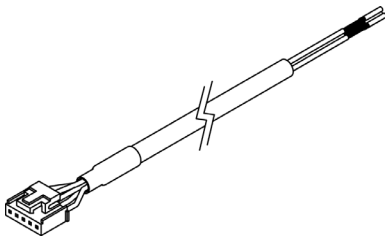
▶ SMAG / SMAI (Accuracy 0.8%FS Type)



▶ Flare Fitting(Optional)

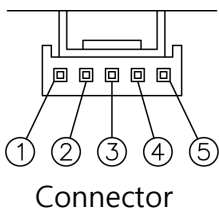


▶ Accessory



Connector Ass'y (Length : 2m)

Connection



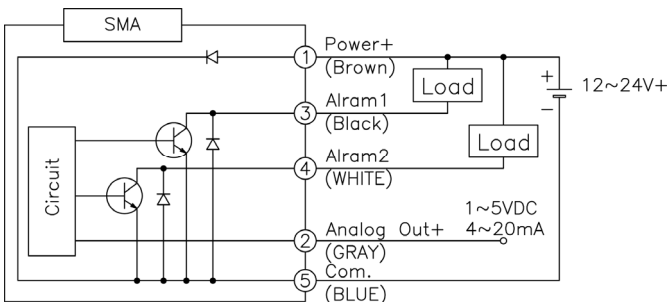
Pin No.	Wire Color	Connections
1	Brown	Power+(12~24VDC)
2	Gray	Analog output+
3	Black	Alarm 1
4	White	Alarm 2
5	Blue	Com.

Function

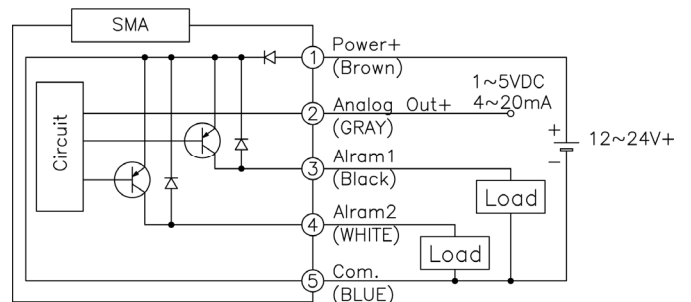
- ▶ Zero Adjustment
- ▶ 2channel Alarm(NPN or PNP), Alarm mode(High, Low, A, B)
- ▶ Anti-chattering(Alarm, Analog Output)
- ▶ Unit Conversion
- ▶ Analog Output Scale Adjustment
- ▶ Key Lock

Internal Circuit Diagram

▶ NPN Type

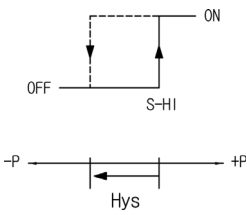


▶ PNP Type

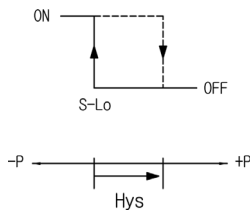


Alarm Mode

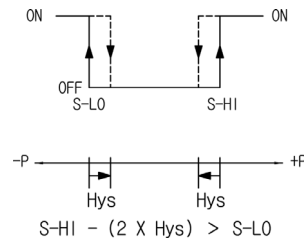
▶ Hi Mode



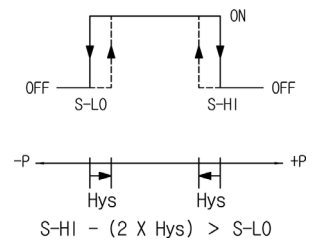
▶ Low Mode



▶ A Mode



▶ B Mode



Ordering Information

Model Name	SMA E E N 0001 M 1 D - XXX - A	Option
Type		Port Option
E : for Liquid / Differential Pressure / Accuracy 0.5%FS / Vertical installation		Type of Pressure Measurement
F : for Liquid / Differential Pressure / Accuracy 0.5%FS / Horizontal installation		D : Differential
G : for Liquid / Differential Pressure / Accuracy 0.8%FS / Vertical installation		Pressure port
I : for Liquid / Differential Pressure / Accuracy 0.8%FS / Horizontal installation		1 : R(PT)1/4"(Female) 2 : UNF 7/16(Flare Fitting) V : Port Option
Analog Output		Pressure Unit
C : 0~5V J : 0~10V		R : kPa M : MPa
E : 1~5V G : 4~20mA		Pressure Range
Switch Output		XXXX : Pressure
N : NPN Open Collector		
P : PNP Open Collector		