

# Model SMA(Differential pressure for Liquid)

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

## 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

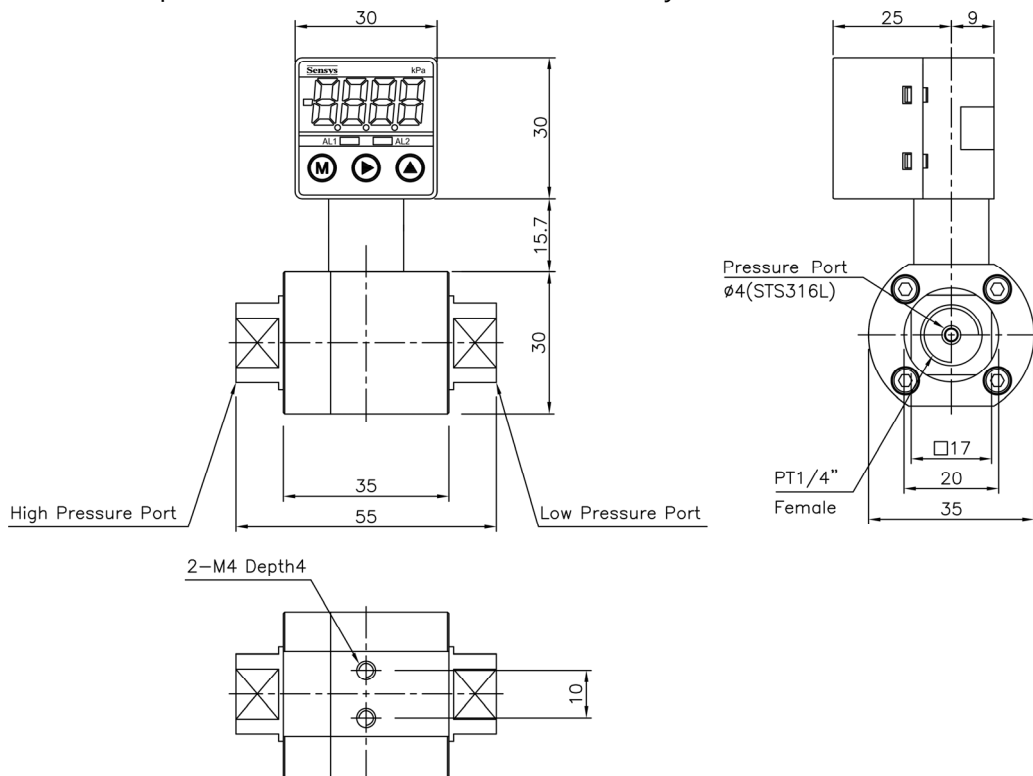


## Specifications

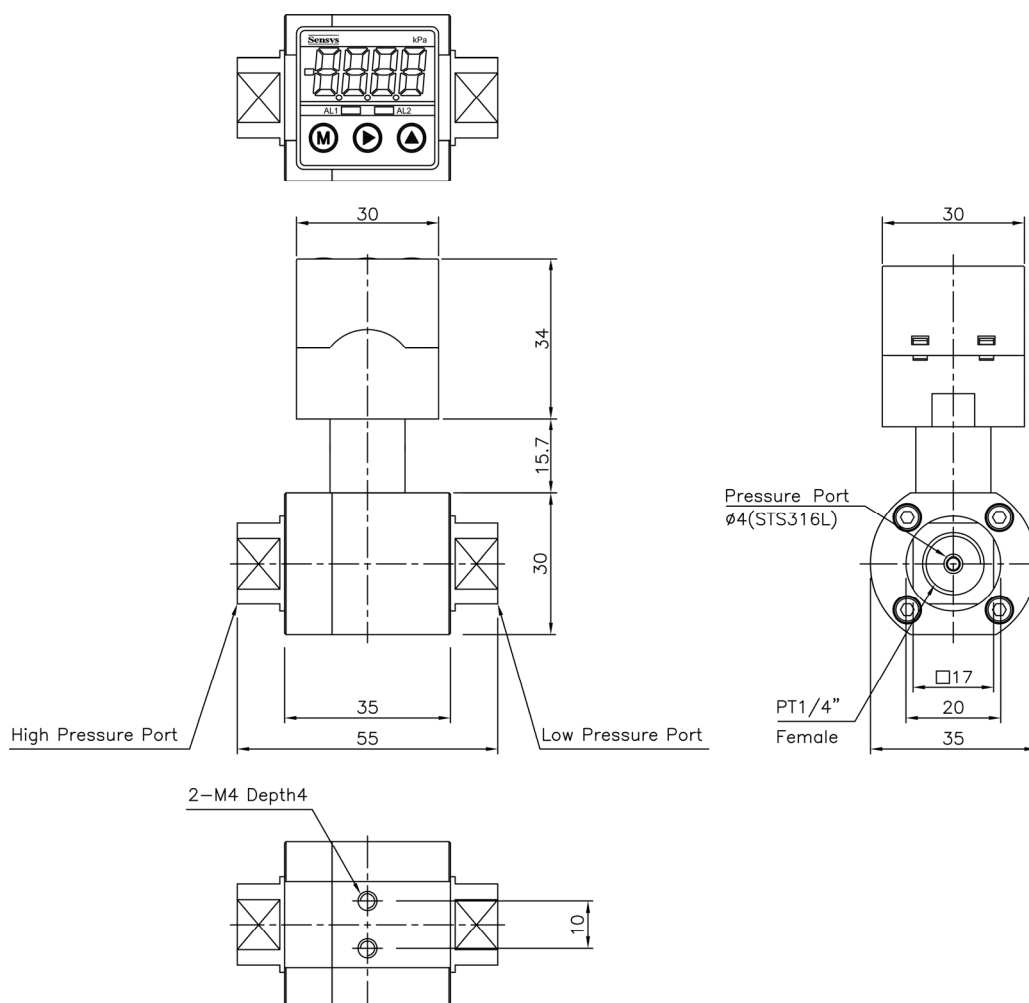
	SMA  / 	SMA  / 
<b>Range</b>	0~5kPa ... 3.5 MPa	0~5kPa ... 2.5 MPa
<b>Performance</b>		
Display Accuracy	±0.5%FS (25°C)	±0.8%FS (25°C)
Thermal Effect	±3%FS (0~50°C)	±3%FS (0~50°C)
Operating Temperature Range	-20~80°C	
<b>Electrical</b>		
Display	LED(Red Color) ±1999 Digit	
Excitation	12~24VDC±10%(Ripple 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	
<b>Physical</b>		
Proof Pressure	Positive Pressure 300%FS Max. Negative Pressure 300%FS Max. (For high-end port, rated or 7MPa whichever is less; for low-end port, rated or 1MPa whichever is less.)	Positive Pressure 200%FS Max. Negative Pressure 100%FS Max.
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

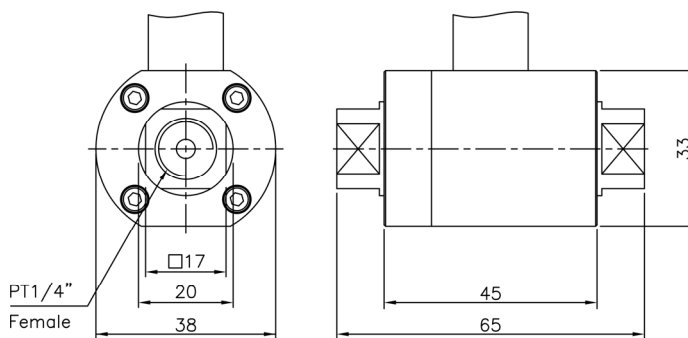
### ► SMAE (Liquid / Differential Pressure / Accuracy 0.5%FS / Vertical installation Type)



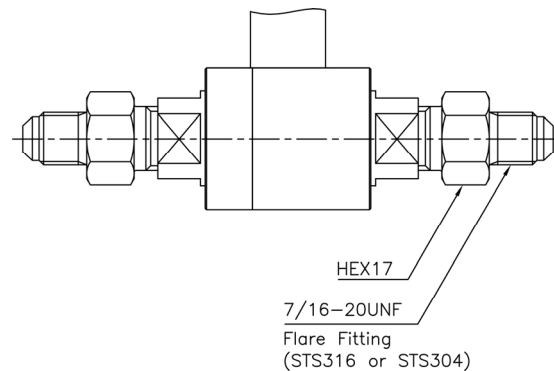
### ► SMAF (Liquid / Differential Pressure / Accuracy 0.5%FS / Horizontal installation Type)



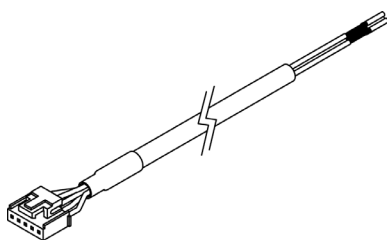
► SMAG / SMAI (Accuracy 0.8%FS Type)



► Flare Fitting(Optional)

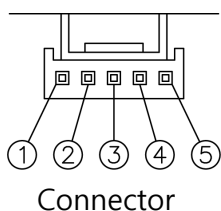


► Accessory



Connector Ass'y (Length : 2m)

## Connection



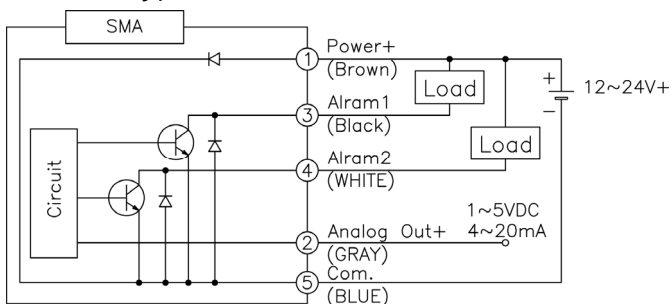
Pin No.	Wire Color	Connections
1	Brown	Power+ (12~24VDC)
2	Gray	Analog output+
3	Black	Alarm 1
4	White	Alarm 2
5	Blue	Com.

## Function

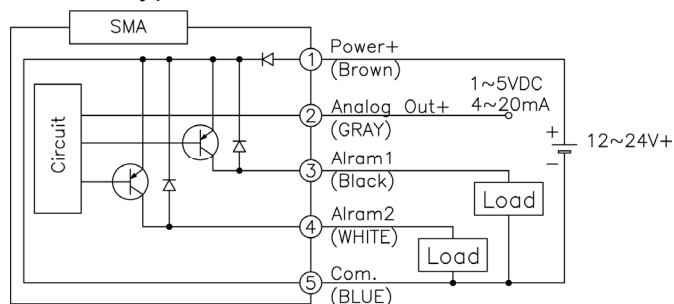
- Zero Adjustment
- 2channel Alarm(NPN or PNP), Alarm mode(High, Low, A, B)
- Anti-chattering(Alarm, Analog Output)
- Unit Conversion
- Analog Output Scale Adjustment
- Key Lock

## Internal Circuit Diagram

► NPN Type

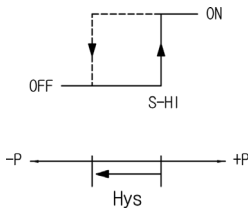


► PNP Type

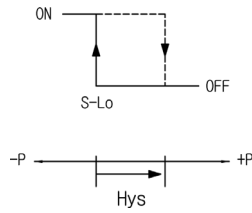


## Alarm Mode

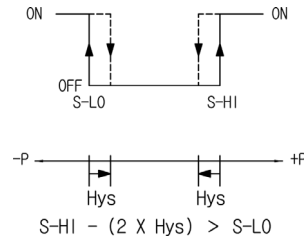
### ► Hi Mode



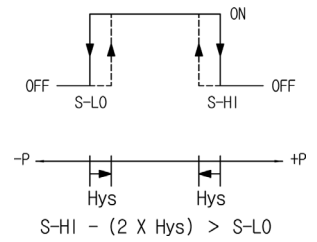
### ► Low Mode



### ► A Mode



### ► B Mode



## Ordering Information

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