

# Model SMA(Sensor Separated)

Compact Size(30X30mm) Digital Pressure Gauge / Switch  
with Miniature Pressure Sensor

## Description

SMA(SS) features its measuring element and the Indicator are separated to be suitable for use in environments where the process fluid is distant. The indicator's dimension is 30X30mm, and the sensor is a miniature pressure sensor, which its hexagon head size is HEX11. This model contains Microprocessor in default. Moreover, it is a Pressure Gauge / Switch with characteristics of LED Display, 0~5, 1~5, 0~10VDC or 4~20mA Analog Output, 2-Channel NPN Open Collector Output.

## Features

- ▶ Compact design(30mm×30mm)
- ▶ 4 Digit LED display
- ▶ 1~5, 0~5, 0~10VDC or 4~20mA analog output
- ▶ 2-channel NPN open collector output
- ▶ Miniature Pressure Sensor(Hex 11)
- ▶ Measuring range : 0~600kPa ... 3MPa
- ▶ Stainless steel(316L) media-wetted materials

## Applications

- ▶ Process control
- ▶ Hydraulics & Pneumatic
- ▶ Compressor Control
- ▶ Chillers
- ▶ Refrigeration Equipment



## Specifications

### Range

0~600kPa, 1.2, 1.8, 3MPa(Gauge)  
0~600kPa, 1.2, 1.8, 3MPa(Absolute)

### Performance

Display Accuracy  $\pm 0.5\%FS$  (25°C)  
Thermal Effect  $\pm 2\%FS$  (Sensor : -20~85°C / Indicator : -10~50°C)  
Operating Temperature Range Sensor : -40~85°C / Indicator : -10~50°C

### Electrical

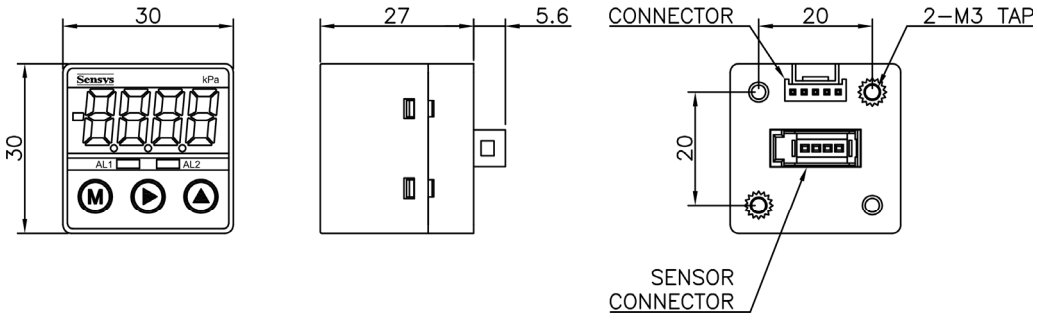
Display LED(Red Color) 4Digit  
Excitation 12~24VDC $\pm 10\%$ (Ripple P-P Max. 10%)  
Output  
Switching Signal 2-Channel NPN open collector output  
Analog Signal 1~5, 0~5, 0~10VDC or 4~20mA  
Response Time 65, 100, 200, 500, 1000, 2000ms

### Physical

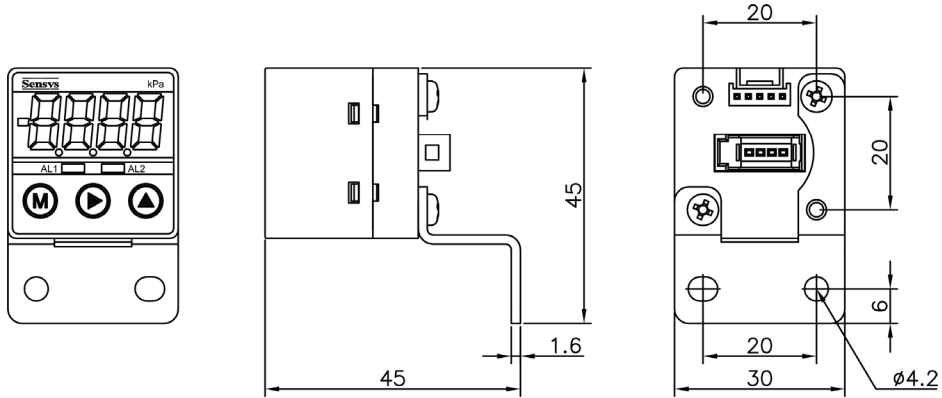
Proof Pressure 2X or 3MPa, whichever is less.  
Pressure Port 5/16-32 UNEF-3A  
Media-wetted materials STS316L

# Dimension

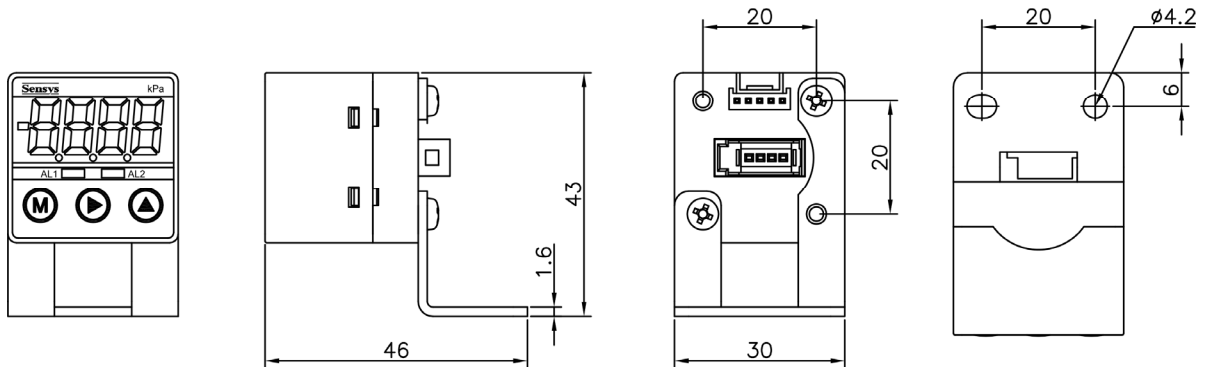
## ► Indicator



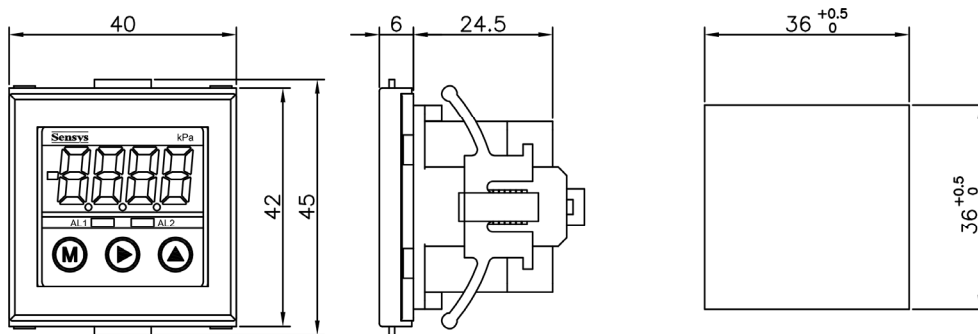
## - Bracket A



## - Bracket B

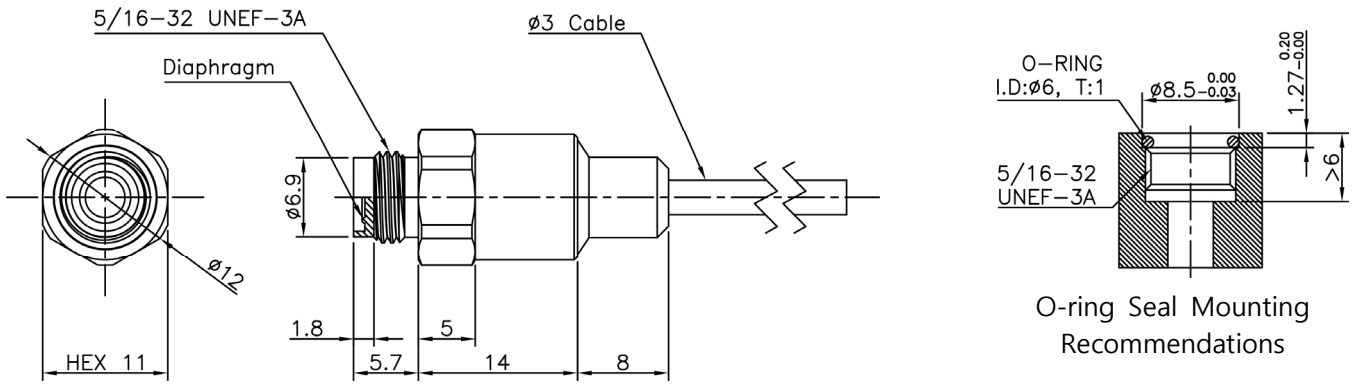


## - Panel Mounting Bracket



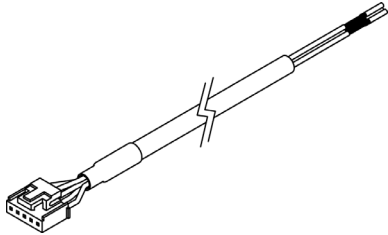
Panel Cut Size  
(Panel Thickness 1~8mm)

► Sensor

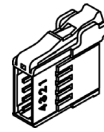


O-ring Seal Mounting Recommendations

► Accessory

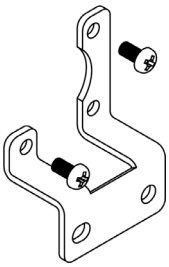


Connector Ass'y (Length : 2m)



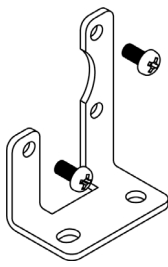
Sensor Connector(e-CON)

► Option



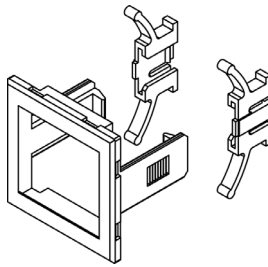
Bracket A

(O/C : SMA-O-A)



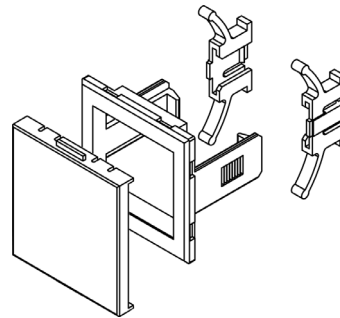
Bracket B

(O/C : SMA-O-B)



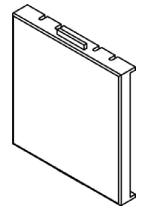
Panel Mounting Bracket Set

(O/C : SMA-O-C)



Panel Mounting Bracket Set + Front Protection Cover

(O/C : SMA-O-D)



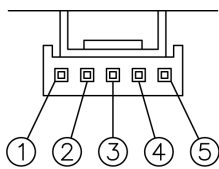
Front Protection Cover

(O/C : SMA-O-E)

\*. O/C : Ordering Code

**Connection**

► Connector



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.

► Sensor Connector

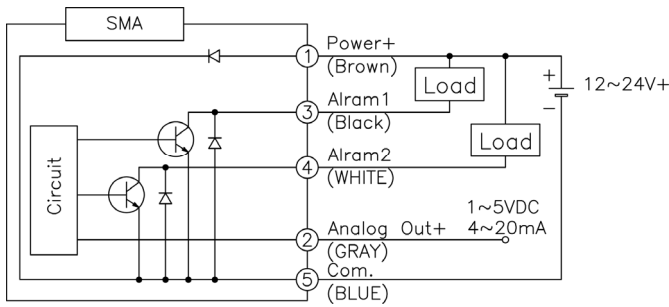


Pin No.	Wire Color
1	Red
2	Black
3	Green
4	White

**Function**

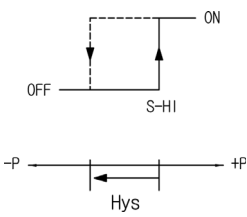
- Zero Adjustment
- 2channel Alarm, Alarm mode(High, Low, A, B)
- Anti-chattering(Alarm, Analog Output)
- Unit Conversion
- Analog Output Scale Adjustment
- Key Lock

## Internal Circuit Diagram

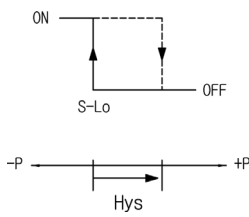


## Alarm Mode

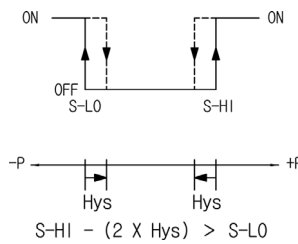
### ► Hi Mode



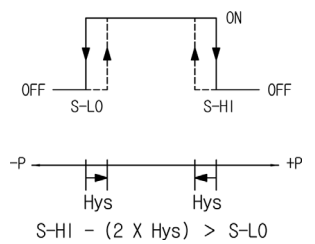
### ► Low Mode



### ► A Mode



### ► B Mode



## Ordering Information

### SMA P E N 0600 R V G-A09-A

#### Model Name

#### Type

P : for Liquid / Sensor Separated Type

#### Analog Output

C : 0~5V      J : 0~10V  
E : 1~5V      G : 4~20mA

#### Switch Output

N : NPN Open Collector

#### Pressure Range

XXXX : Pressure

#### Option

- A : Bracket A
- B : Bracket B
- C : Panel Mounting Bracket Set
- D : Panel Mounting Bracket Set + Front Protection Cover

#### Port Option

A09 : 5/16-32UNEF-3A

#### Type of Pressure Measurement

- G : Gauge
- J : Absolute

#### Pressure port

V : Port Option

#### Pressure Unit

R : kPa      M : MPa