

Model SMA(Corrosion Resistance)

Compact Size(30X30mm) Corrosion Resistance Type
Digital Pressure Gauge / Switch

Description

SMA(CR) model is suitable for corrosive environment because of its ceramic pressure cell and Teflon body. This model, also, contains Microprocessor in default. Moreover, it is a Pressure Gauge / Switch with characteristics of 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
- ▶ 1~5, 0~5, 0~10VDC or 4~20mA analog output
- ▶ 2-channel NPN or PNP open collector output
- ▶ Piezoresistive ceramic cell
- ▶ Measuring range 0~1MPa
- ▶ PTFE, VITON or Perfluoroelastomer media-wetted materials

Applications

- ▶ Semiconductor Manufacturing Equipment
- ▶ High-purity Fluids
- ▶ Chemical Process
- ▶ Physics and Chemistry Equipment
- ▶ Waste Disposing Equipment



Specifications

Range

0 ~ 100, 200, 500kPa, 1MPa (Gauge)

Performance

Display Accuracy	±1%FS (25°C)
Thermal Effect on Zero	±0.06%FS/°C
Thermal Effect on Span	±0.06%FS/°C
Compensated Temperature Range	-10 ~ 70°C
Operating Temperature Range	-20 ~ 80°C

Electrical

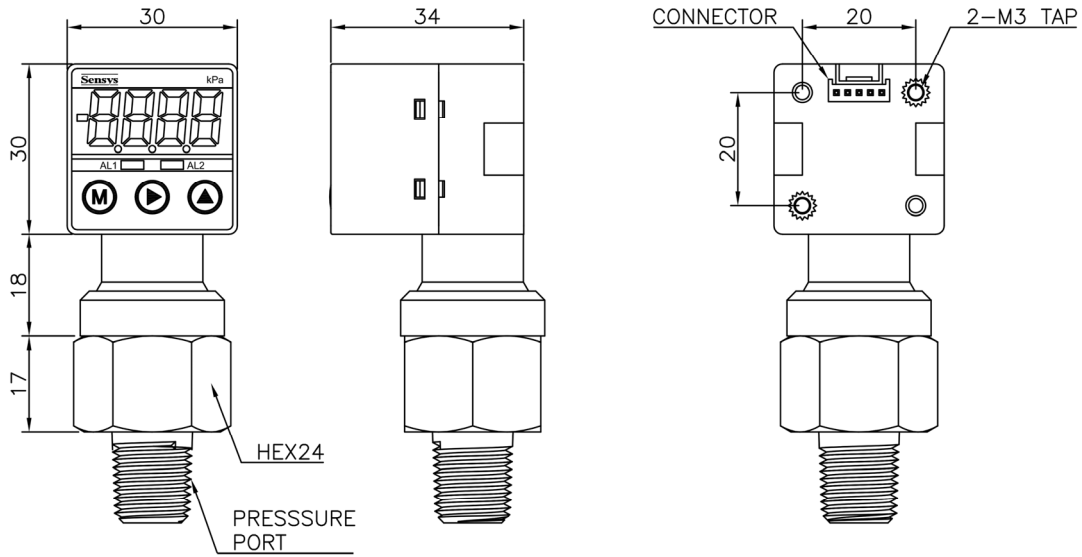
Display	LED(Red Color) ±1999 Digit
Excitation	12~24VDC±10%(Ripple P-P Max. 10%)
Output	
Switching Signal	2-Channel NPN or PNP open collector output
Analog Signal	1~5, 0~5, 0~10VDC, 4~20mA
Response Time	20, 100, 500, 1000, 2000ms

Physical

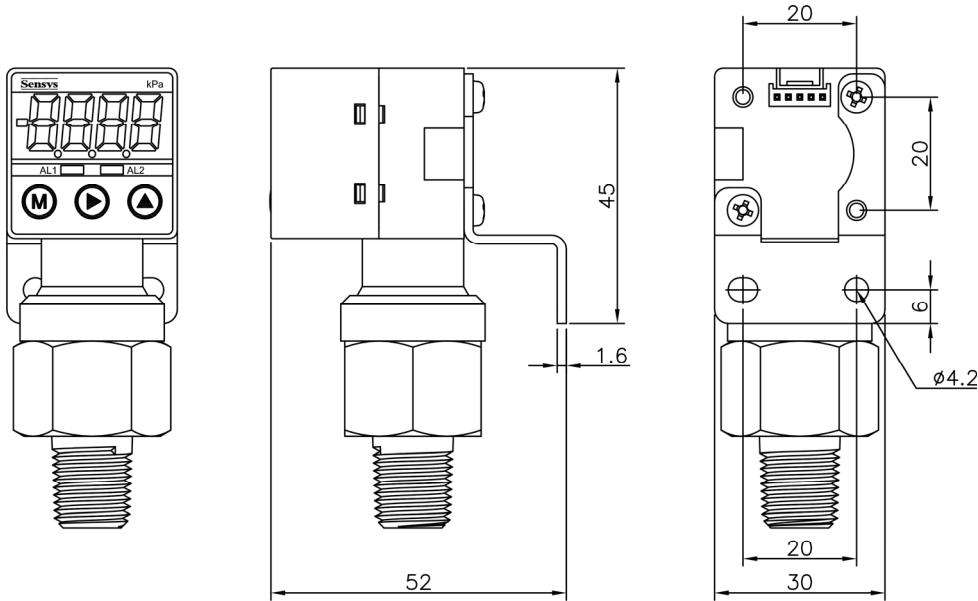
Proof Pressure	150%FS Max.
Burst Pressure	200%FS Min.
Pressure Port	R(PT)1/4", 3/8", 1/2", Sleeve 1/4", Flare 1/4"
Media-Wetted Materials	PTFE, VITON or Perfluoroelastomer

Dimension

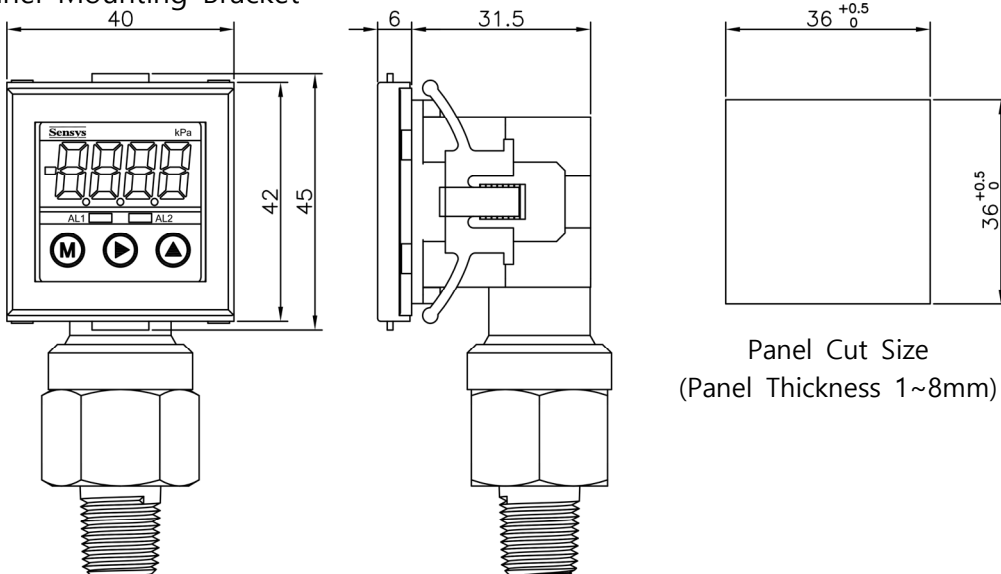
► SMAR (Corrosion Resistance / Vertical installation Type)



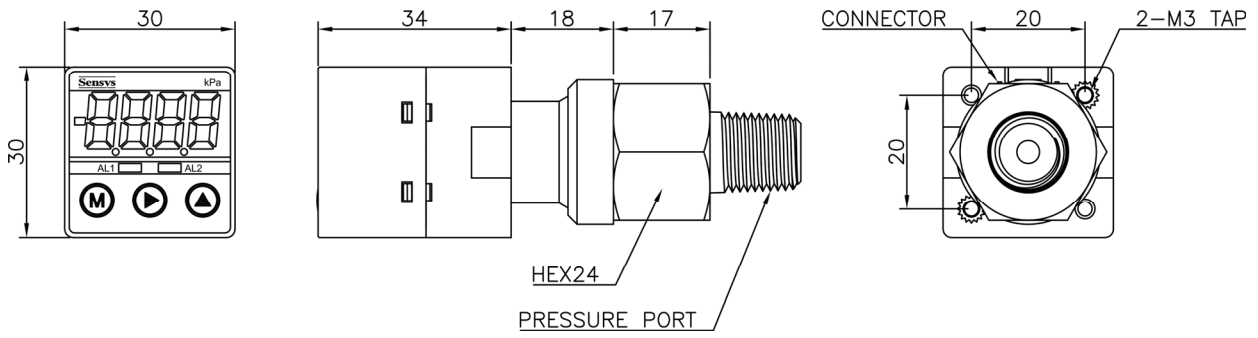
- Bracket A



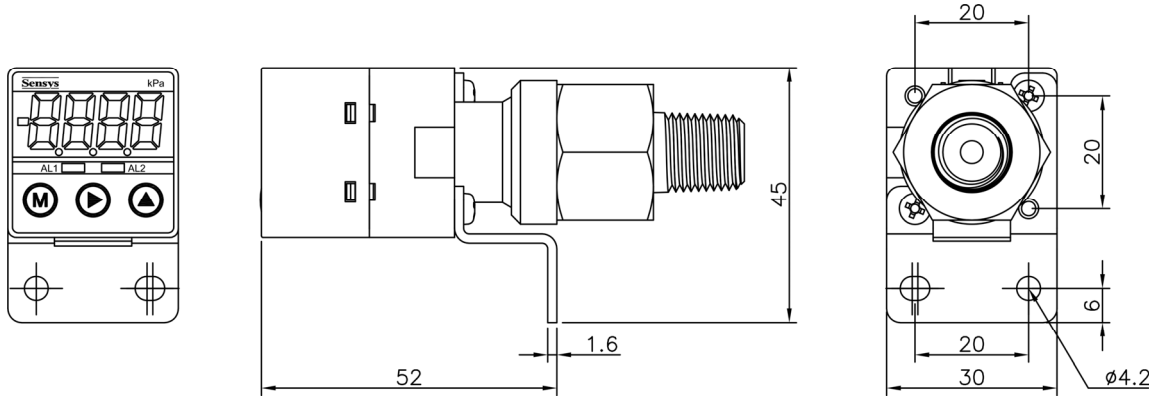
- Panel Mounting Bracket



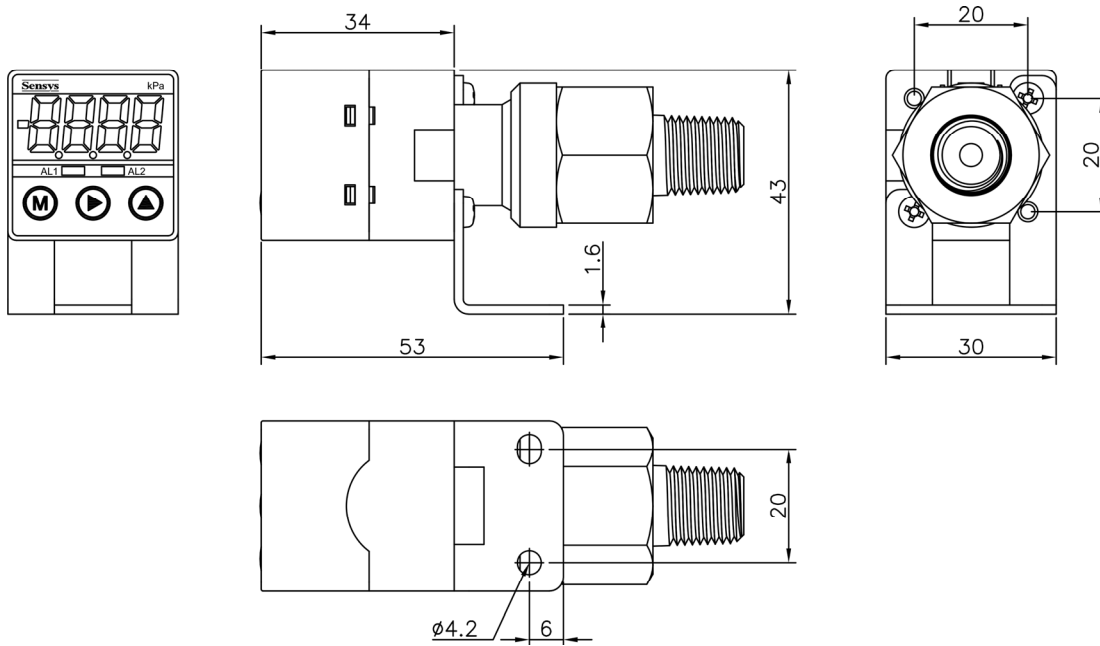
► SMAS (Corrosion Resistance / Vertical installation Type)



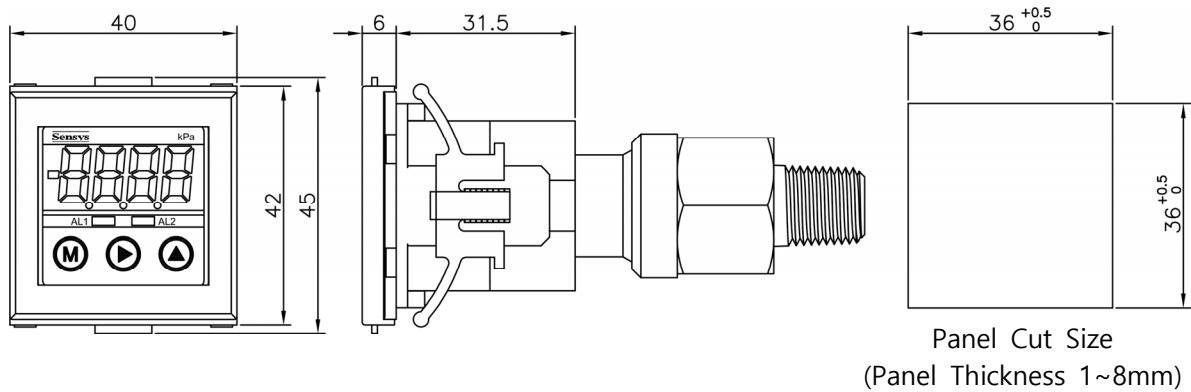
- Bracket A



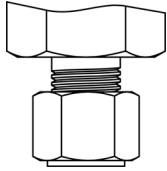
- Bracket B



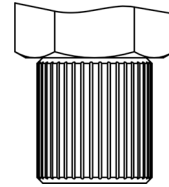
- Panel Mounting Bracket



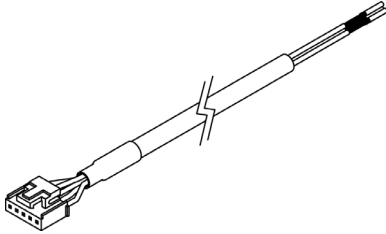
▶ Pressure Port : Sleeve 1/4" Type



▶ Pressure Port : Flare 1/4" type

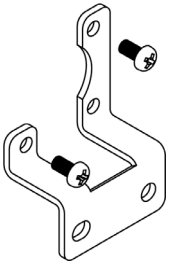


▶ Accessory



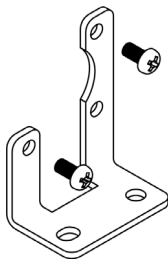
Connector Ass'y (Length : 2m)

▶ Option



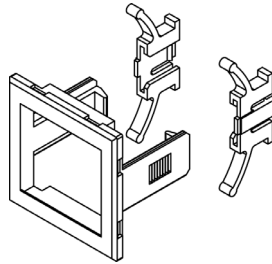
Bracket A

(O/C : SMA-O-A)



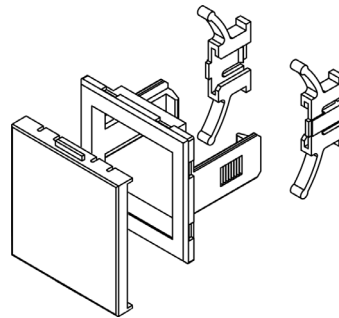
Bracket B

(O/C : SMA-O-B)



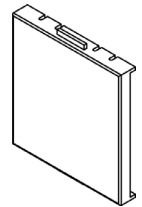
Panel Mounting Bracket Set

(O/C : SMA-O-C)



Panel Mounting Bracket Set
+ Front Protection Cover

(O/C : SMA-O-D)

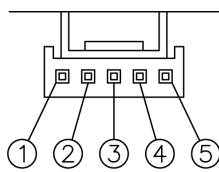


Front Protection Cover

(O/C : SMA-O-E)

*. O/C : Ordering Code

Connection



Connector

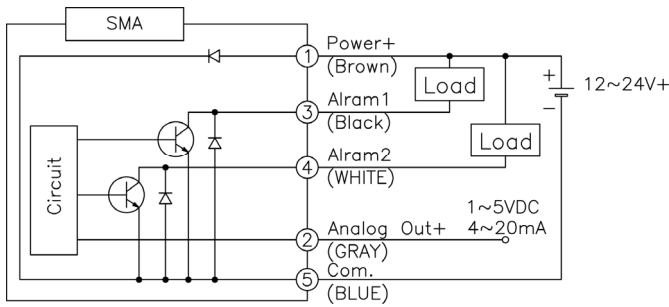
Pin No.	Wire Color	Connections
1	Brown	Power+(12~24VDC)
2	Gray	Analog output+
3	Black	Alarm 1
4	White	Alarm 2
5	Blue	Com.

Function

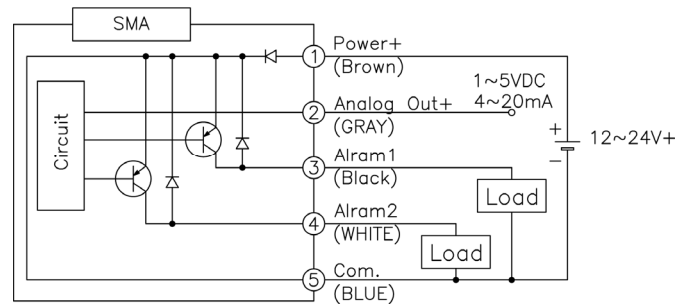
- ▶ Zero Adjustment
- ▶ 2channel Alarm(NPN or PNP), Alarm mode(High, Low, A, B)
- ▶ Anti-chattering(Alarm, Analog Output)
- ▶ Unit Conversion
- ▶ Analog Output Scale Adjustment
- ▶ Key Lock

Internal Circuit Diagram

▶ NPN Type

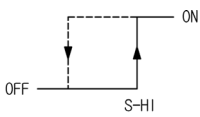


▶ PNP Type

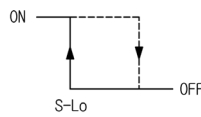


Alarm Mode

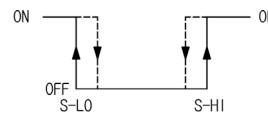
▶ Hi Mode



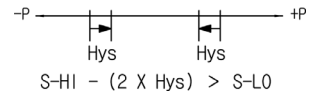
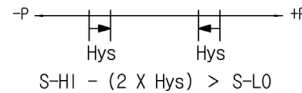
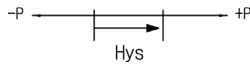
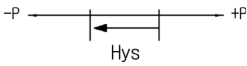
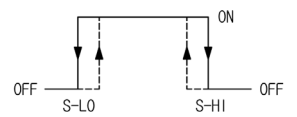
▶ Low Mode



▶ A Mode



▶ B Mode



Ordering Information

SMA R E N 0001 M C G - 000 - A

Model Name

Type

R : for Corrosion Resistance
/ Vertical installation
S : for Corrosion Resistance
/ Horizontal installation

Analog Output

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

Switch Output

N : NPN Open Collector
P : PNP 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

A06 : Sleeve 1/4"
A07 : Flare 1/4"

Type of Pressure Measurement

G : Gauge

Pressure port

C : R(PT)1/4" E : R(PT)1/2"
A : R(PT)3/8" V : Port Option

Pressure Unit

R : kPa M : MPa