

Model SMA

Compact Size(30X30mm) Digital Pressure Gauge / Switch

Description

SMA 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 or PNP Open Collector Output. As Pressure Sensor, Indicator and Switch are integrated in order to realize providing it at low price.

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 silicon cell
- ▶ SMAA Model
Measuring range : -100~0~100 ... 1000kPa
Use with non-corrosive, non-ionic media
- ▶ SMAV, SMAH Model
Measuring range : -100~0~100kPa ... 70MPa
Stainless steel(316L) media-wetted materials

Applications

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

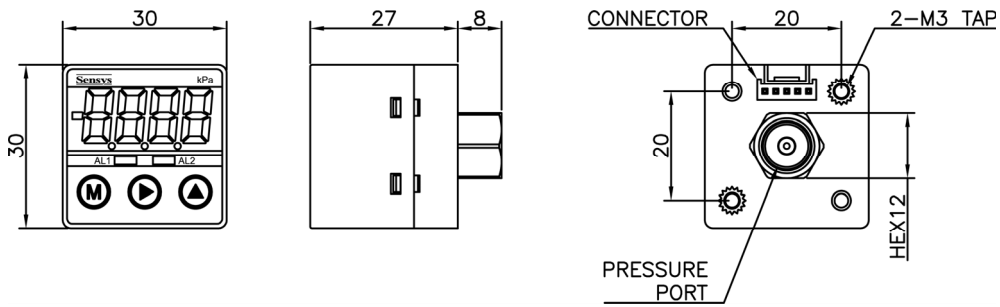


Specifications

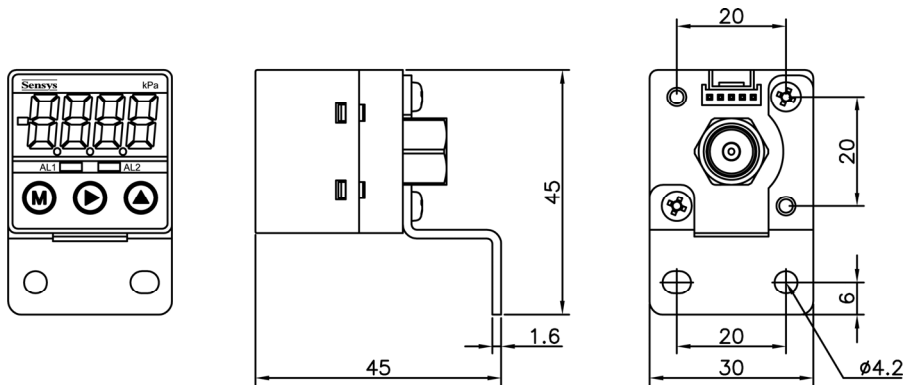
| | SMA <input type="checkbox"/> | SMA <input checked="" type="checkbox"/> SMA <input checked="" type="checkbox"/> |
|--------------------|--|--|
| Range | 0~100kPa, 1MPa(Gauge) -100kPa~100kPa, 1MPa(Gauge) 0~-100kPa(Gauge) | 0~0.1, 1, 3.5, 7, 20, 35, 70MPa(Gauge/Absolute) -0.1~0.1, 1, 3.5, 7, 20, 35, 70MPa(Gauge) 0~-100kPa(Gauge) |
| Performance | Display Accuracy Thermal Effect Operating Temperature Range | ±0.5%FS (25°C) ±3%FS (0~50°C) -10~50°C |
| Electrical | Display Excitation Output Switching Signal Analog Signal | LED(Red Color) ±1999 Digit 12~24VDC±10%(Ripple P-P Max. 10%) 2-Channel NPN or PNP open collector output 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 Pressure Port Media | 150%FS Max. R(PT)1/4", M5(F) Non-corrosive Gases R(PT)1/4", LOK, VCR Corrosive Gases/Liquids compatible with STS316L |

Dimension

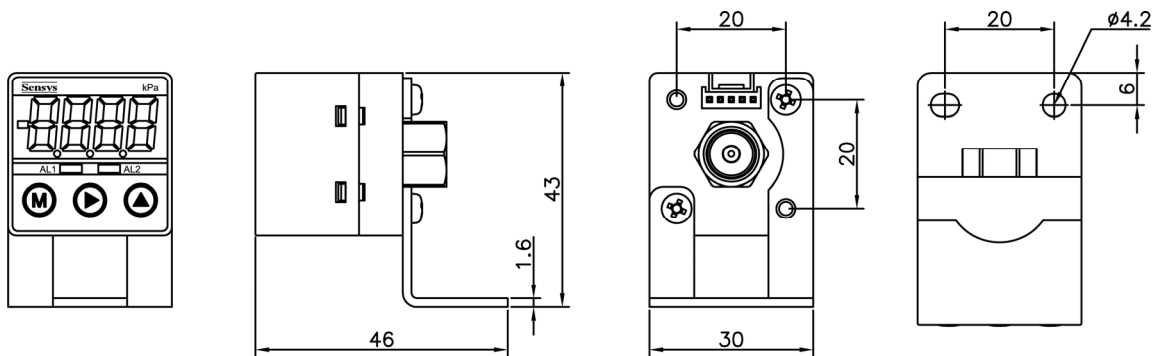
► SMAA (Only Air Type)



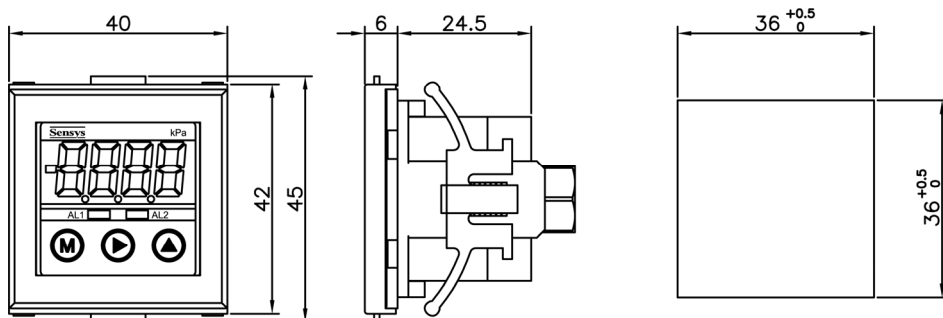
- Bracket A



- Bracket B

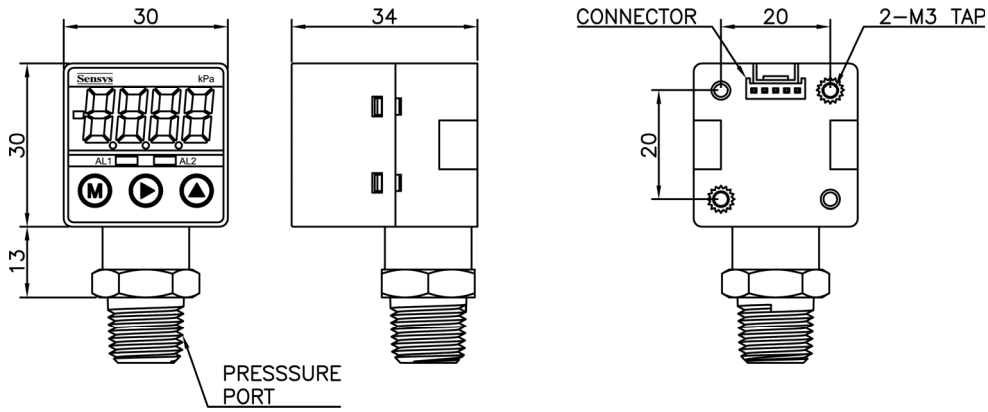


- Panel Mounting Bracket

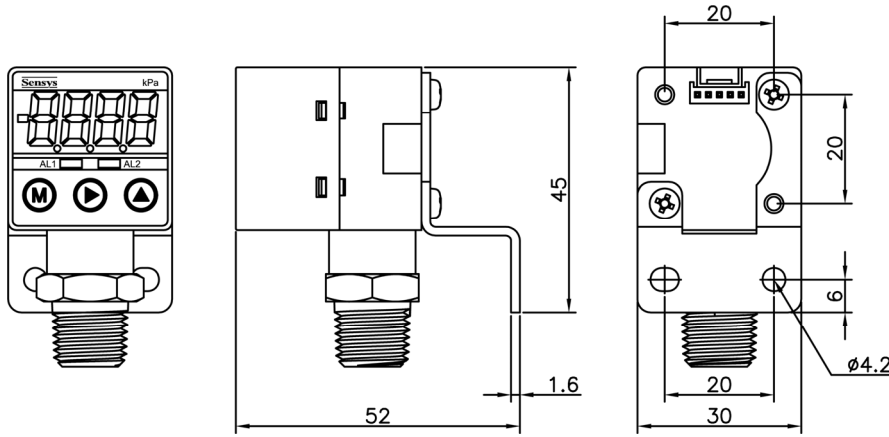


Panel Cut Size
(Panel Thickness 1~8mm)

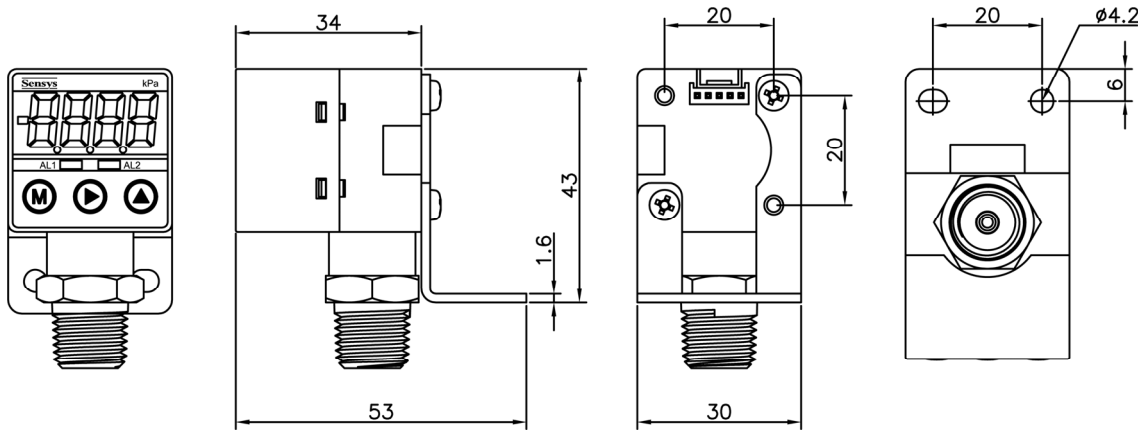
► SMAV (Liquid / Vertical installation Type)



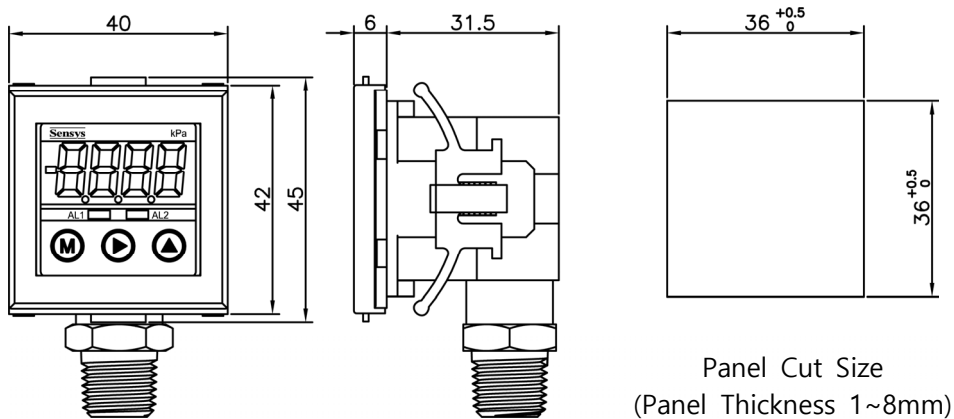
- Bracket A



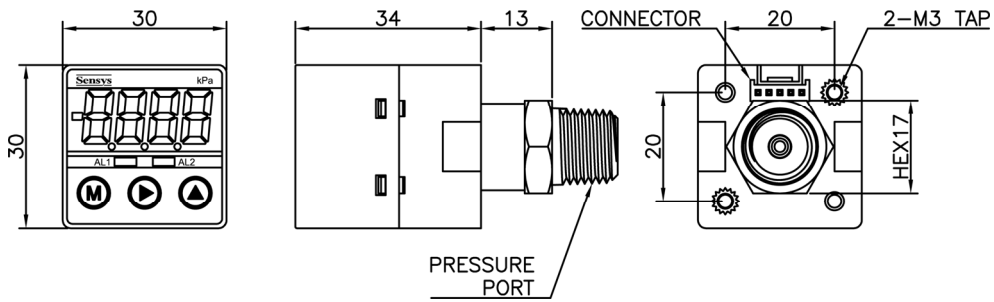
- Bracket B



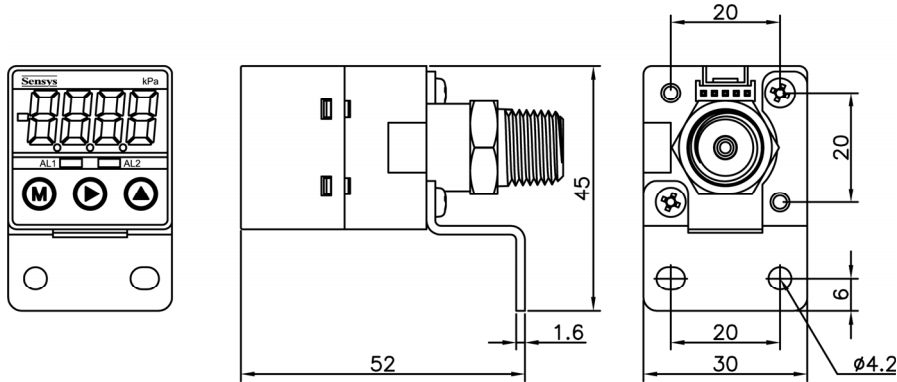
- Panel Mounting Bracket



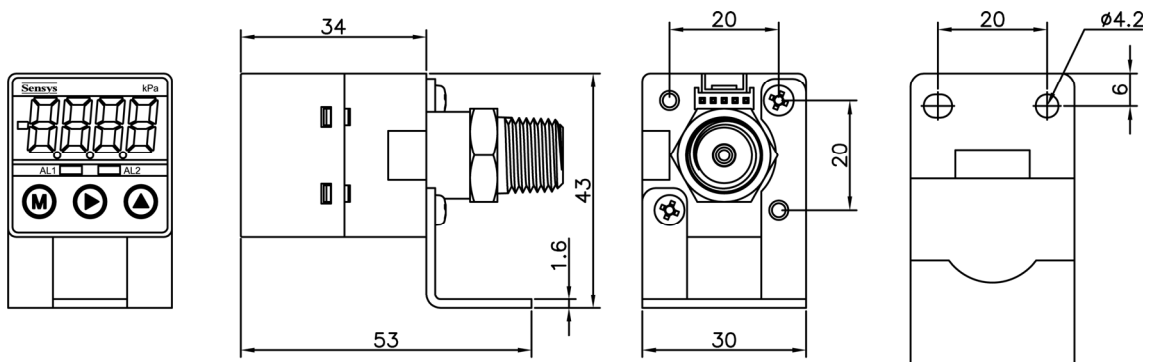
► SMAH (Liquid / Horizontal installation Type)



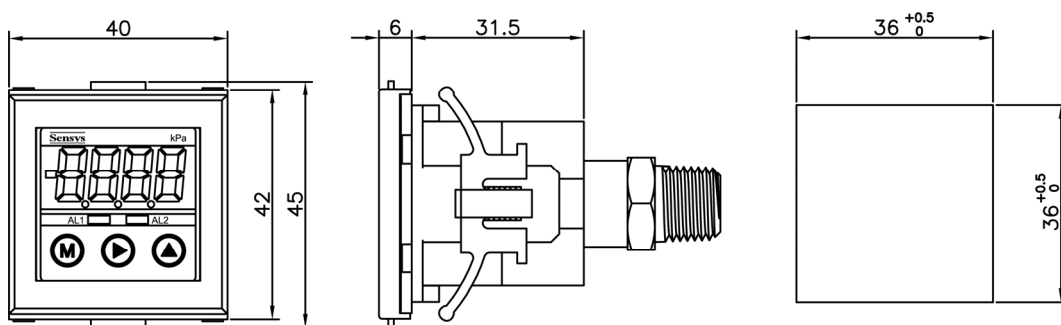
- Bracket A



- Bracket B

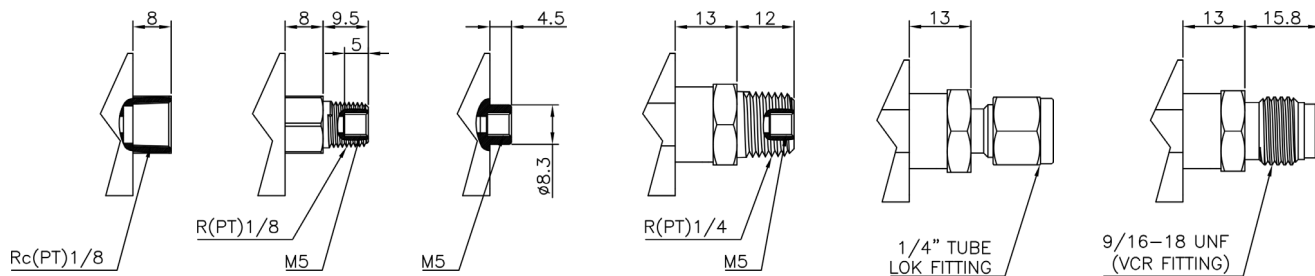


- Panel Mounting Bracket



Panel Cut Size
(Panel Thickness 1~8mm)

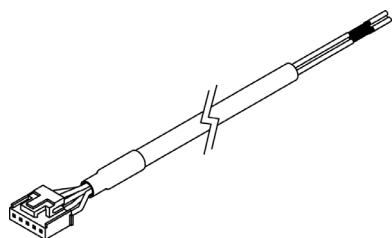
► Pressure Port



O/C: SMAA□□□□8□ SMAA□□□□G□ SMAA□□□□9□ SMA_H^V□□□□C□ SMA_H^V□□□□V□-A04 SMA_H^V□□□□V□-A05

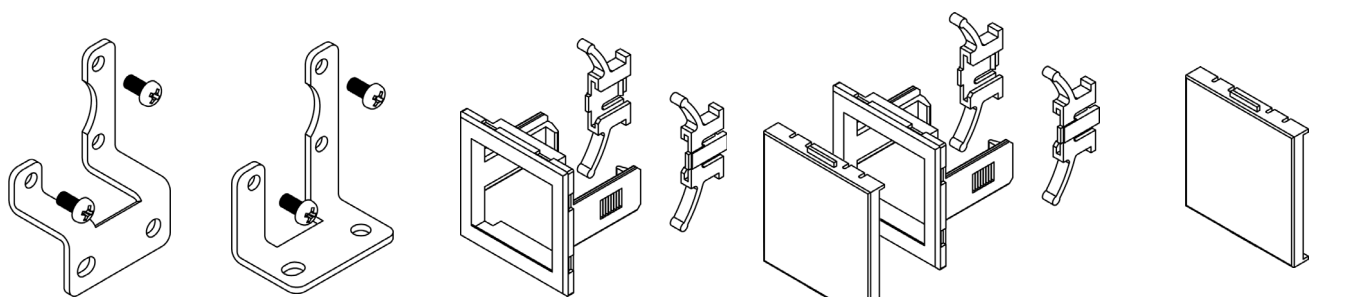
*. O/C : Ordering Code

► Accessory



Connector Ass'y (Length : 2m)

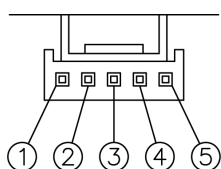
► Option



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

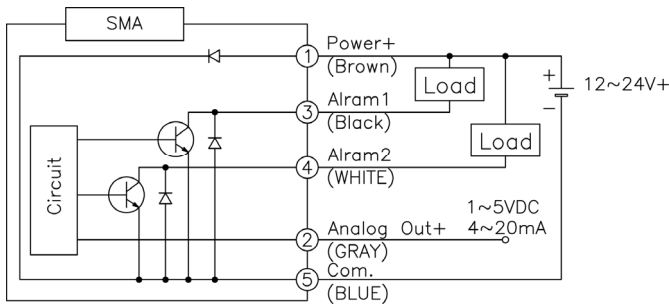
| Pin No. | Wire Color | Connections |
|---------|------------|------------------|
| 1 | Brown | Power+(12~24VDC) |
| 2 | Gray | Analog output+ |
| 3 | Black | Alarm 1 |
| 4 | White | Alarm 2 |
| 5 | Blue | Com. |

Function

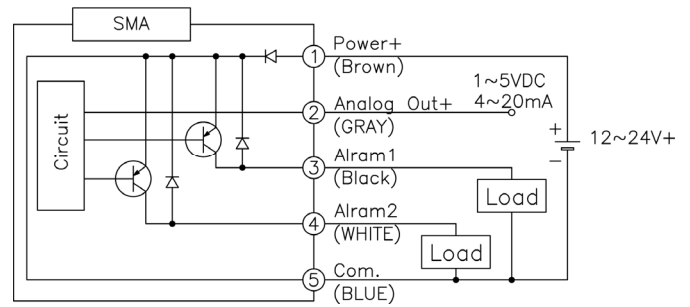
- Zero Adjustment
- 2channel Alarm(NPN or PNP), Alarm mode(High, Low, A, B)
- Anti-chattering(Alarm, Analog Output)
- Unit Conversion
- Analog Output Scale Adjustment
- Key Lock

Internal Circuit Diagram

▶ NPN Type

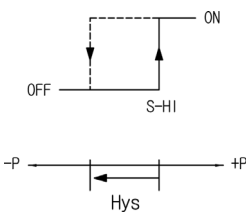


▶ PNP Type

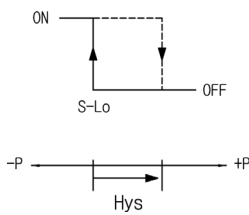


Alarm Mode

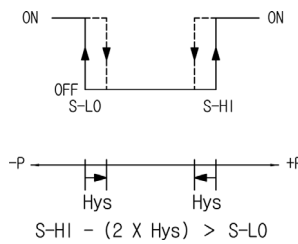
▶ Hi Mode



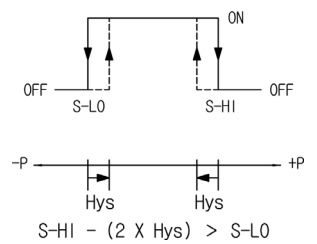
▶ Low Mode



▶ A Mode



▶ B Mode



Ordering Information

SMA A E N 0001 M V G-A04-A

Model Name

Type

A : for Air
V : for Liquid / Vertical installation
H : for Liquid / 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
CXXX : Compound Pressure
-XXX : Vacuum Pressure

Option

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

Port Option

A04 : 1/4" LOK Fitting
A05 : 9/16-18UNF VCR

Type of Pressure Measurement

G : Gauge (Type A, V, H)
J : Absolute (Type V, H)

Pressure port

| Type A | Type V, H |
|------------|-----------------|
| 8 : Rc1/8" | C : R1/4" |
| 9 : M5(F) | V : Port Option |
| G : R1/8" | |

Pressure Unit

R : kPa M : MPa

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· Specifications are subject to change without notice.