

E8Y

Micropressure Sensor with Easy-to-Read Digital Display

- Repeat accuracy of $\pm 1\%$ FS (setting resolution: 0.01 kPa), high-precision pressure control available.
- Compact design (31 × 30 × 30 mm) saves mounting space.
- Easy-to-read red LED indicator.
- Analog current output models available (E8Y-A□Y).
- Pressure port Rc (PT) 1/8 models available (-R).
- EN and UL approved.



Ordering Information

Sensors

Pressure range *	Digital output	Linear output	Model
0 to 200 Pa	NPN open collector	---	E8Y-AR2C
0 to 500 Pa			E8Y-AR5C
0 to 2.00 kPa			E8Y-A2C
0 to 5.00 kPa			E8Y-A5C
0 to 200 Pa		4 to 20 mA	E8Y-AR2Y
0 to 2.00 kPa			E8Y-A2Y
0 to 5.00 kPa			E8Y-A5Y
0 to 5.00 kPa	PNP open collector		E8Y-A5B

Note: Order the optional E89-Y1 Panel-mounting Bracket.
A model number ending in -R indicates the pressure port is die-cast for Rc (PT) 1/8 models.

Accessories (Order Separately)

Panel Attachment Parts Set (For □36 and □45 Models)

Model
E89-Y1 *

* Includes the cover, guide, frame, and holder.

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E8MS
/E8M

E8Y

E8Y-□-□

Ratings

Model		E8Y-AR2C	E8Y-AR5C	E8Y-A2C E8Y-A2C-R	E8Y-A5B E8Y-A5C E8Y-A5C-R	E8Y-AR2Y	E8Y-A2Y E8Y-A2Y-R	E8Y-A5Y E8Y-A5Y-R
Item								
Power supply voltage		12 to 24 VDC ±10% with a ripple (p-p) of 10% max.						
Current consumption		50 mA max.				75 mA max.		
Pressure type		Differential pressure						
Rated pressure range		0 to 200 Pa	0 to 500 Pa	0 to 2.00 kPa	0 to 5.00 kPa	0 to 200 Pa	0 to 2.00 kPa	0 to 5.00 kPa
Withstand pressure		5 kPa		50 kPa		5 kPa	5 kPa	
Applicable fluid		Non-corrosive gas and non-flammable gas						
Linear output	Output current	---	---	---	---	4 to 20 mA		
	Permissible load resistance	---	---	---	---	0 to 250 Ω		
	Precision	---	---	---	---	±2.5%FS	±1.0%FS	
	Linearity	---	---	---	---	±2.5%FS	±1.0%FS	
Digital output	Output form	NPN open collector (NO/NC) *						
	Load current	100 mA						
	Output applied voltage	30 VDC max.						
	Residual voltage	1.0 V max. with a load current of 100 mA or 0.4 V max. with a load current of 16 mA						
	Repeat accuracy	±2.5%FS	±1.0%FS			±2.5%FS	±1.0%FS	
Dis- play	Display	3-digit 7-segment red LED						
	Indicator lamp	Orange LED indicator (OUT1: lit when digital output is ON) Orange LED indicator (OUT2: lit when digital output is ON)						
Response speed		0.5 s max.						
Display accuracy		±1.0%FS						
Setting resolution		1 Pa		0.01 kPa		1 Pa	0.01 kPa	
Protection circuits		Reverse polarity protection, load short-circuit protection						
Ambient temperature		Operating: -10 to 55°C (with no icing)						
Ambient humidity		Operating: 25% to 85% (with no condensation)						
Storage temperature		-25 to 65°C						
Accessories		Mounting Brackets (A and B), Instruction manual						

* The E8Y-A5B provides a PNP open-collector (NO/NC) output.

Specifications

Temperature influence	E8Y-A2C/A5C: $\pm 3\%$ FS max. E8Y-AR5C: $\pm 6\%$ FS max. E8Y-AR2C: $\pm 10\%$ FS max.
Humidity influence	E8Y-A2C/A5C: $\pm 3\%$ FS max. E8Y-AR5C: $\pm 6\%$ FS max. E8Y-AR2C: $\pm 10\%$ FS max.
Degree of protection	IP40 (IEC)
Dielectric strength	1,000 VAC at 50/60 Hz for 1 minute
Insulation resistance	100 M Ω min. (at 500 VDC) between current-carrying parts and case
Vibration resistance	Destruction: 10 to 150 Hz, 0.75-mm single amplitude or 100 m/s ² , 4 times each for 8 min in X, Y and Z directions
Shock resistance	Destruction: 300 m/s ² 3 times each in X, Y and Z directions
Pressure port	4.5-dia resin pipe or Rc (PT) 1/8 taper screw (-R type)
Cable	Vinyl-insulated round cable 4 dia., Standard length: 2 m
Weight	Approx. 80 g

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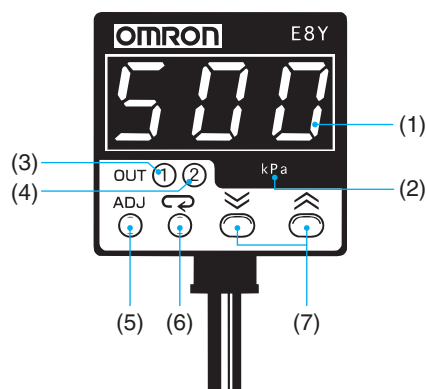
E8MS
/E8M

E8Y

E8Y-□-□

E8Y

Nomenclature



Display

- (1) Numerical value/menu indication**
Displays the measured pressure and some menu settings.
- (2) Unit**
Shows the measuring unit. Unit currently in use is illuminated.
- (3) OUT 1 indication LED**
In measurement mode, it lights when OUT 1 output is on. In setting mode, it flashes when OUT 1 is being set.
- (4) OUT 2 indication LED**
In measurement mode, it lights when OUT 2 output is on. In setting mode, it flashes when OUT 2 is being set.

Operation Key

- (5) ADJ**
In measurement mode, it adjusts the Zero Point.
In setting mode, it shifts to measurement mode.
- (6) MODE**
In measurement mode, it shifts to setting mode and selects the current setting or menu option.
- (7) UP/DOWN**
In measurement mode, pushing the DOWN key displays the ON and OFF points of OUT 1; pushing the UP key displays the ON and OFF points of OUT 2.
In setting mode, the UP and DOWN keys increase or decrease the numeric value, respectively, or scroll through the menu options.

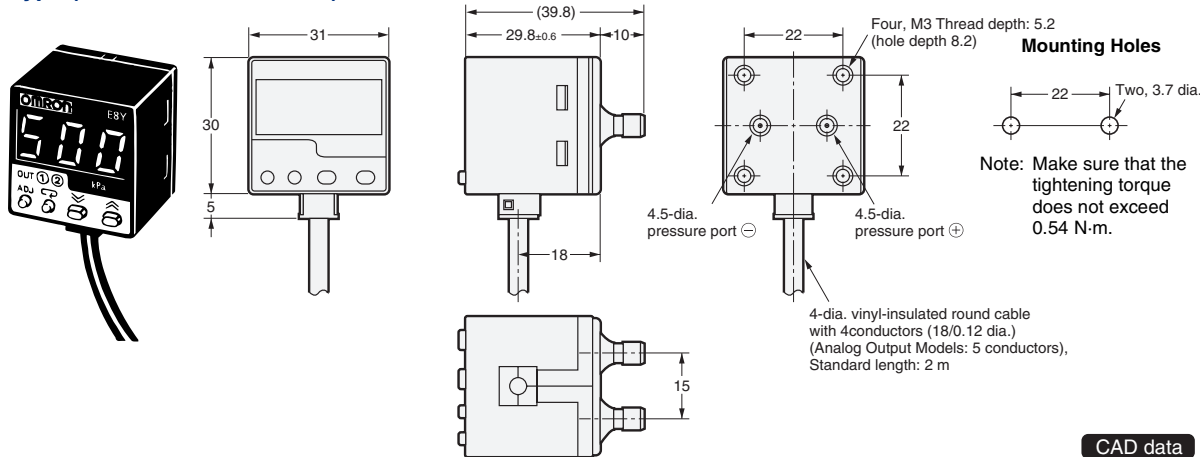
Dimensions

(Unit: mm)

Sensors

Standard Port Type (Pressure Port: 4.5 dia.)

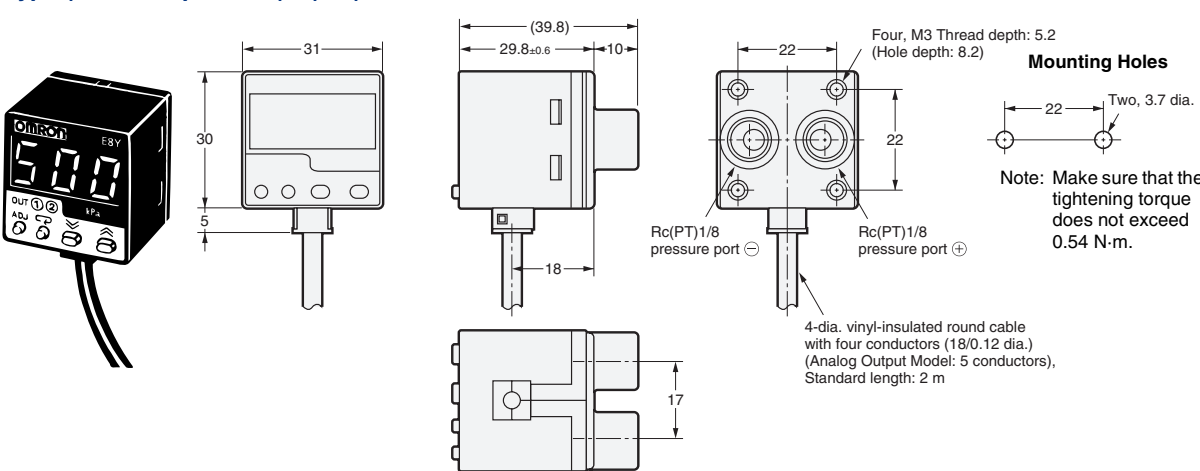
E8Y-AR5C
E8Y-AR2C
E8Y-A2C
E8Y-A5C
E8Y-A5B
E8Y-AR2Y
E8Y-A2Y
E8Y-A5Y



CAD data

Die-case Port Type (Pressure port: Rc(PT)1/8)

E8Y-A2C-R
E8Y-A5C-R
E8Y-A2Y-R
E8Y-A5Y-R



Note: Make sure that the tightening torque does not exceed 0.54 N·m.

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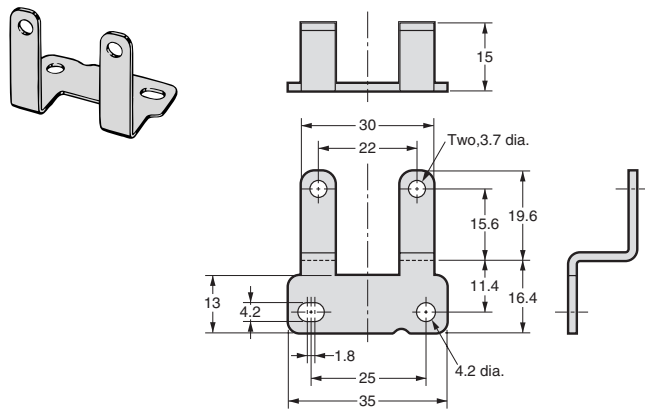
E8MS
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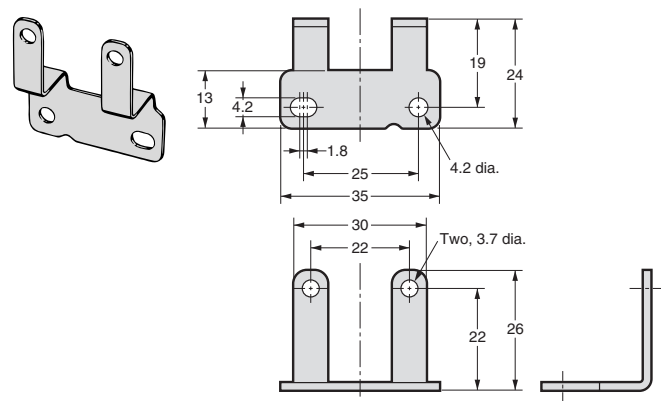
E8Y-□-□

Accessories (Provided)

Mounting Bracket A



Mounting Bracket B



Refer to the *E8Y Pressure Sensor Datasheet* (Cat. No. F045) for details.

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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.



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