

GENERAL CATALOGUE 2004/2005

# Sensing & Safety



- Photoelectric Sensors
- Displacement Sensors
- Vision Systems
- Safety Sensors
- Safety Switches
- Safety Relays
- Proximity Sensors
- Rotary Encoders
- Pressure Sensors

Advanced Industrial Automation

Cat.No. F502-EN2-03A SEN

**OMRON**

## Pressure Sensors

LED Digital Display	E8F2	G-2
Ultra-small, Ultra-light (LED Digital Display)	E8MS/E8M	G-4

Pressure Sensor

# E8F2

## Mini-Cube' Pressure Sensor with Easy-to-Read LED Display

- Both analog bar and digital pressure values are displayed
- Measurement pressure is equalized by the chattering prevention function, and an incorrect output is prevented.
- Easy operation by the automatic teaching function
- Compact style: 28 x 28 x 29 mm saves installation space





### Ordering Information

#### Sensors

Pressure range		ON/OFF output	Linear output	Model	
				NPN output	PNP output
Positive pressure	0 to 100 kPa	Open collector (independent two outputs)	1 to 5 V	<b>E8F2-A01C</b>	<b>E8F2-A01B</b>
	0 to 1 MPa			<b>E8F2-B10C</b>	<b>E8F2-B10B</b>
Negative pressure	0 to -101 kPa			<b>E8F2-AN0C</b>	<b>E8F2-AN0B</b>

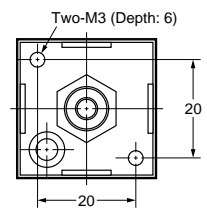
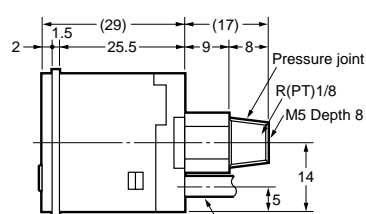
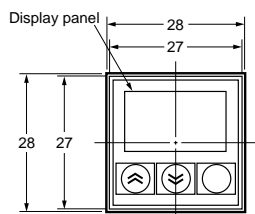
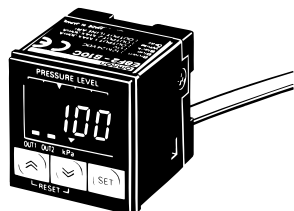
#### Accessories (Order Separately)

Shape	Name	Model	Remarks
	Mounting Brackets	<b>E89-F3</b>	Supplied with the product.
	Panel-mounting Bracket	<b>E89-F4</b>	---

## Dimensions (Unit: mm)

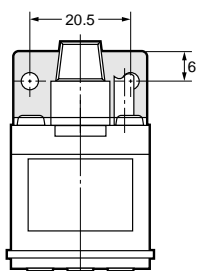
### Sensors

#### E8F2

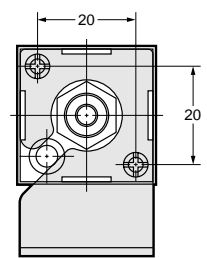
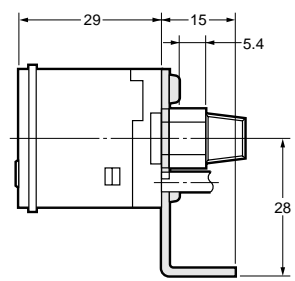
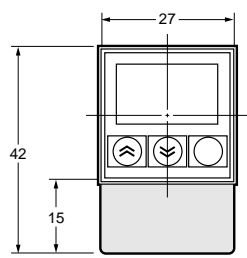
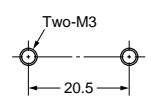


Vinyl-insulated round cable with five conductors, 4 dia. (0.08 dia. X 30); Standard length: 2m

With mounting bracket attached



Mounting Holes



CAD file E8F2\_01

Pressure Sensor

# E8MS/E8M

## Four-channel Pressure Sensor Offering Versatile Functions and High Precision Without Errors

- The industry's smallest pressure sensor, compact, lightweight - ideal for robot arms or other moving components
- A highly sensitive minute-pressure sensor model detects very small differences in air pressure
- No wiring conduit required - can be located for sensing in small places
- Simple display panel for efficient space-saving, though, providing large LEDs
- Easy sensitivity adjustment using the teach function and channel-to-channel copy function



## Ordering Information

### Sensors

#### Sensors

#### E8MS

Pressure range		Output form	Model
Positive pressure	0 to 100 kPa	Linear output 1 to 5 V	<b>E8MS-01</b>
	0 to 1 MPa		<b>E8MS-10</b>
Negative pressure	0 to -101 kPa		<b>E8MS-N0</b>

#### E8M

Pressure range		Output form	Model
Minute differential pressure sensor	Differential pressure from 0 to 1,000 Pa (0 to 0.145 psi) between positive and negative ports	Linear output 1 to 5 V	<b>E8M-A1</b>
Positive pressure	0 to 1 MPa		<b>E8M-10</b>
Negative pressure	0 to -101 kPa		<b>E8M-N0</b>



### Controller

Supply voltage	Output form	Number of sensor inputs	Model
24 VDC	NPN open collector	4	<b>K3C-MP8-T1Z</b>
		2CH	<b>K3C-DP8-T1Z</b>

Note: 1 ch model available.


### Accessories (Order Separately)

#### Sensor I/O Connectors

Applicable type	Shape	Model	Specifications	Quantity	Remarks
E8M		<b>E89-M3 (see note)</b>	4-pin connector with 3 m long cable	1	Supplied with one XS8A-0442 Pin Controller Connector
E8MS		<b>E89-M4</b>	3-pin connector with 3 m long cable		

Note: E8M-A1 does not require the Sensor I/O Connector.

#### Pin Controller Connector


Shape	Model	Fitting conductors size (mm)	Quantity	Minimum order unit	Remarks
	<b>XS8A-0442</b>	0.14 to 0.2	1	10	E89-M3 and E89-M4 supplied with one XS8A-0442 each

Note: Orders are accepted in multiples of the minimum order unit.

Power and output connector


Model	Specifications	Quantity
<b>K32-MP2W</b>	7-pin connector with 2-m-long cable	1

Adapter


Shape	Model	Quantity	Minimum order unit	Remarks
	<b>Y92F-30</b>	1	10	One Adapter is attached to the K3C Controller.

Note: Orders are accepted in multiples of the minimum order unit.

Soft Cover

Shape	Model
	<b>Y92A-48F1</b>

Hard Cover

Shape	Model
	<b>Y92A-48</b>

Sensor and Controller Combinations

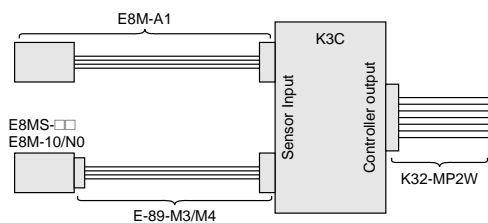
Use the Pressure Controllers in the following combinations.

The E89-M3/M4 is required when using the Sensor as a single unit.

Model	E89-M3	E89-M4	K3C-MP8-T1Z K3C-DP8-T1Z	K32-MP2W
E8MS-01	X	O	O	O
E8MS-10	X	O	O	O
E8MS-N0	X	O	O	O
E8M-A1	X	X	O	O
E8M-10	O	X	O	O
E8M-N0	O	X	O	O

O:Required; X: Not required.

Sensor and Controller Connection

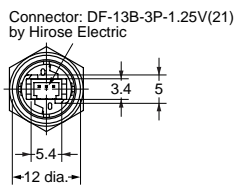
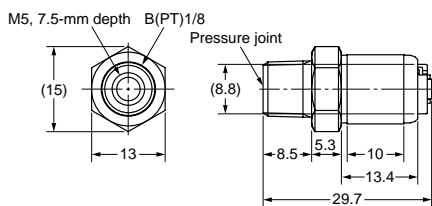


Dimensions (Unit: mm)

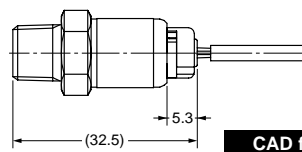
Sensors

Sensors

**E8MS-01**  
**E8MS-10**  
**E8MS-N0**

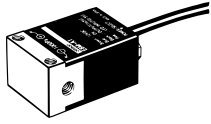


Connection with E89-M4 Sensor I/O Connector

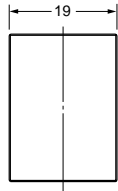


CAD file E8MS\_01

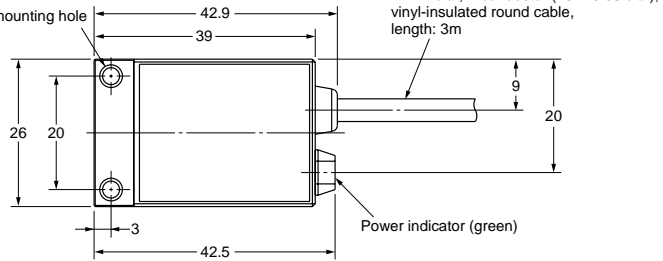
**E8M-A1**



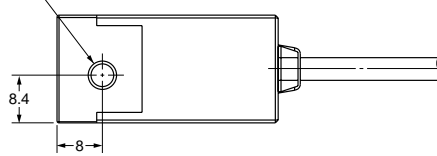
M5, 7-mm-deep pressure joint (Positive) ⊕



Two, M4 mounting hole



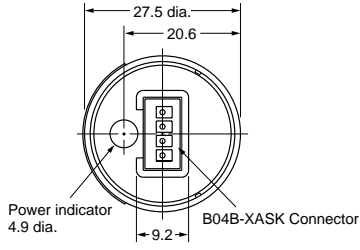
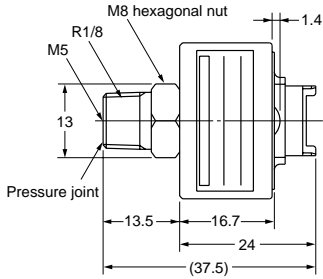
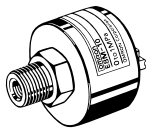
M5, 7-mm-deep pressure joint (Positive) ⊕



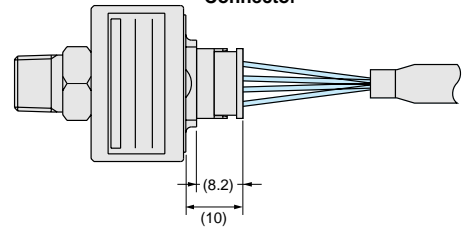
One XS8A-0442 supplied with E8M-A1.

CAD file E8M\_02

**E8M-10**

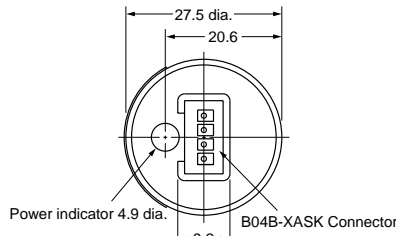
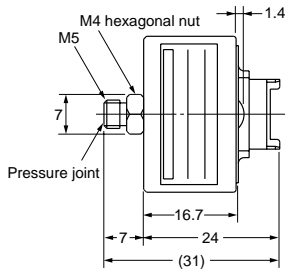


Connection with E89-M3 Sensor I/O Connector

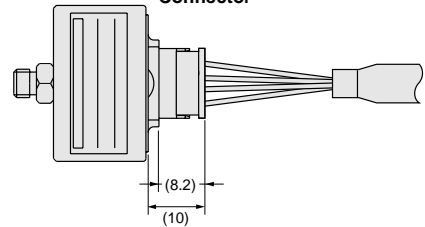


CAD file E8M\_01

**E8M-N0**



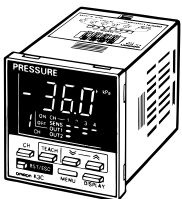
Connection with E89-M3 Sensor I/O Connector



CAD file E8M\_03

**Controller**

**K3C-□P8-T1Z**



CAD file K3C\_01

