

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

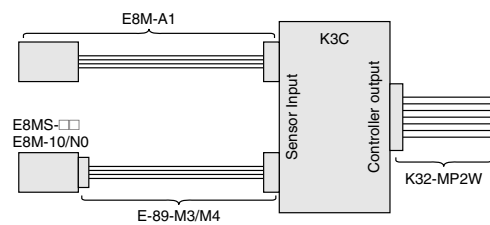
Use the Pressure Controllers in the following combinations.

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

| Model   | E89-M3 | E89-M4 | K3C-MP8-T1Z<br>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.

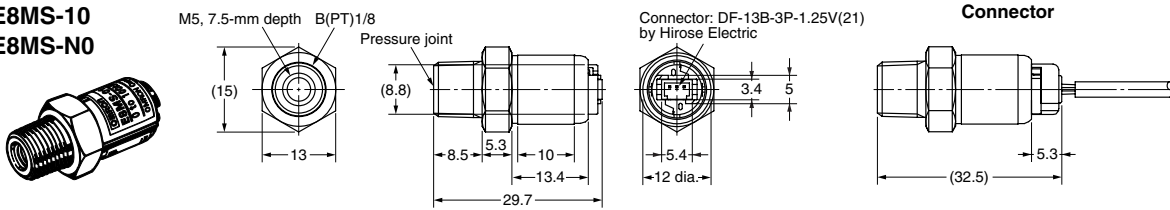
Sensor and Controller Connection



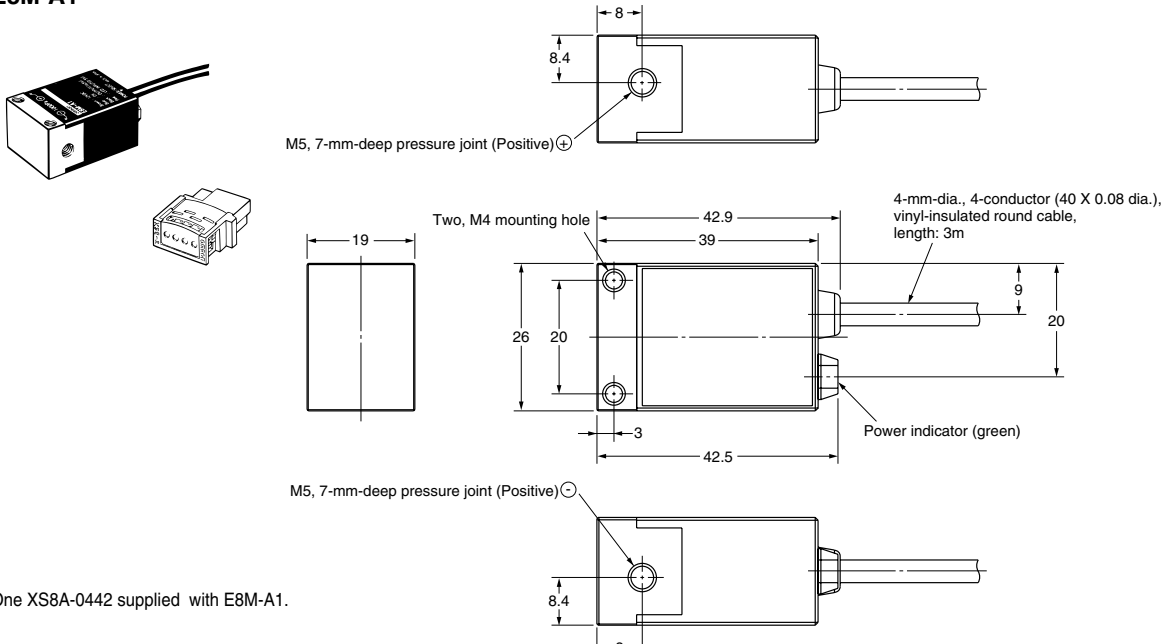
Dimensions (Unit: mm)

Sensors  
Sensors

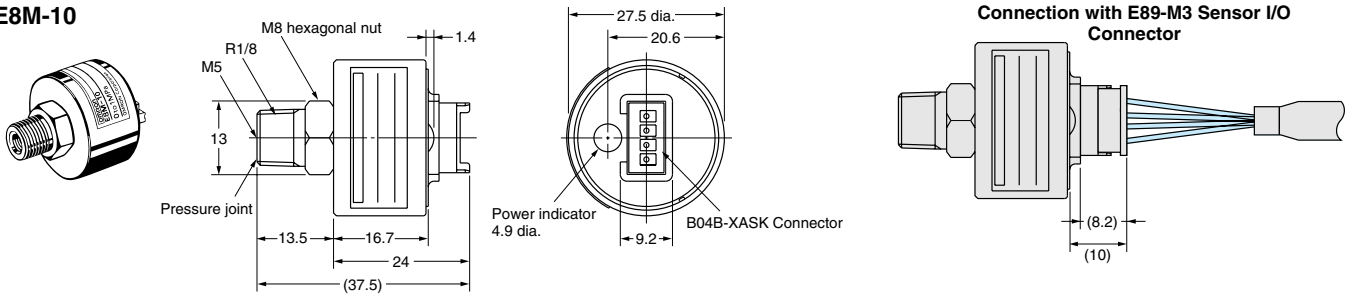
E8MS-01  
E8MS-10  
E8MS-N0



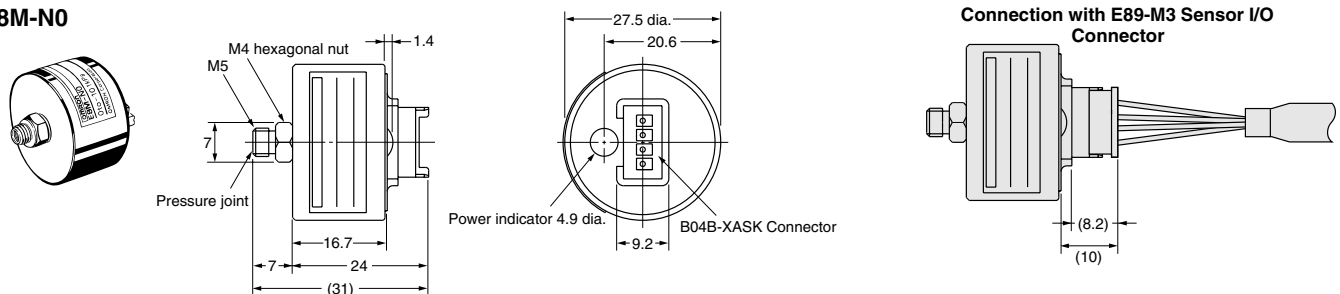
E8M-A1



E8M-10

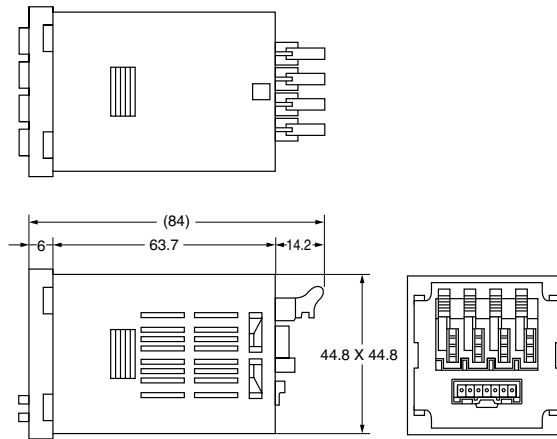
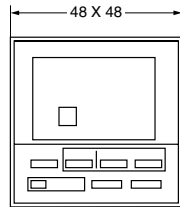
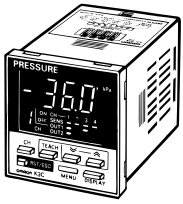


E8M-N0



Controller

K3C-□P8-T1Z



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.