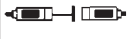







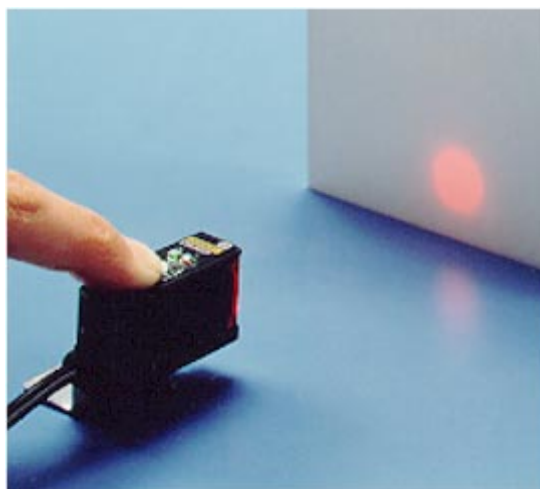
| Sensing distance | | | Supply voltage | Output |
|---|--|---|----------------|---|
|  |  |  | 12 to 24 VDC |  |
| 2, 5 m | 2 m | 10, 30 cm | | 80 mA |

Photoelectric Sensor



E3S

General-purpose Miniature Sensors

- Short response time: 3 ms.
- Easy adjustment of sensitivity and optical axis with STABILITY and LIGHT indicators.
- Wire-selectable operation mode.
- Mutual interference protective circuit eliminates cross talk (reflective sensor only).



Ordering Information

| Appearance | Sensing method | Sensing distance | Model | |
|--|-------------------------|------------------|---|---------------------------|
| | | | NPN output | PNP output |
| Horizontal  | Through-beam (separate) | 2 m | E3S-2E4 | E3S-2B4 |
| | | 5 m | E3S-5E4 E3S-5E4S E3S-5E4S1 | E3S-5B4 E3S-5B4S |
| | Retroreflective | 2 m | E3S-R2E4 | E3S-R2B4 |
| | Diffuse reflective | 10 cm | E3S-DS10E4 | E3S-DS10B4 |
| | | 30 cm | E3S-DS30E4 E3S-DS30E4S E3S-DS30E4S1 | E3S-DS30B4 E3S-DS30B4S |
| Vertical  | Through-beam (separate) | 2 m | E3S-2E41 | E3S-2B41 |
| | | 5 m | E3S-5E41 | E3S-5B41 |
| | Retroreflective | 2 m | E3S-R2E41 | E3S-R2B41 |
| | Diffuse reflective | 10 cm | E3S-DS10E41 | E3S-DS10B41 |
| | | 30 cm | E3S-DS30E41 | E3S-DS30B41 |

Specifications

■ Ratings/Characteristics

| Item | | E3S-2□□ | E3S-5□□ | E3S-R2□□ | E3S-DS10□□ |
|-------------------------|----------------|--|---|------------------------------------|------------------------------|
| Power supply voltage | | 12 VDC -10% to 24 VDC +10%, ripple (p-p): 10% max. | | | |
| Current consumption | | 50 mA max. | | 40 mA max. | |
| Sensing distance | | 2 m | 5 m | 0.1 to 2 m (with E39-R1 reflector) | 10 cm |
| Differential travel | | --- | | | 20% max. of sensing distance |
| Standard objects | | Opaque (7 mm) | Opaque (11 mm) | Opaque (30 mm) | 5 x 5 cm white mat paper |
| Control output | DC solid-state | Load | Load current: Models with suffix -E4: 80 mA max. Models with suffix -B4: 100 mA max. | | |
| | | Voltage output | 2 V max. | | |
| Response time (ON, OFF) | | 3 ms max. | | 1 ms max. | |
| Operation mode | | Wire-selectable | | | |
| Indicators | | Light indicator (red), stability indicator (green) | | | |
| Enclosure rating | IEC 144 | IP65 | IP67 | IP65 | |
| | NEMA | 1, 2, 12 | 1, 3, 4X, 6, 12 | 1, 2, 12 | |
| Housing material | | Plastic | Metal | Plastic | |
| Light source | | Infrared LED | | | |
| Ambient temperature | | Operating: -25 to 55 °C | | | |

| Item | | E3S-DS30□□ | E3S-5□4S(1) | E3S-DS30□4S(1) |
|-------------------------|----------------|--|---|------------------------------|
| Power supply voltage | | 12 VDC -10% to 24 VDC +10%, ripple (p-p): 10% max. | | |
| Current consumption | | 40 mA max. | 70 mA max. | |
| Sensing distance | | 30 cm | 5 m | 30 cm |
| Differential travel | | 20% max. of sensing distance | --- | 20% max. of sensing distance |
| Standard objects | | 10 x 10 cm white mat paper | Opaque (11 mm) | 10 x 10 cm white mat paper |
| Control output | DC solid-state | Load | Load current: Models with suffix -E4: 80 mA max. Models with suffix -B4: 100 mA max. | |
| | | Voltage output | 2 V max. | |
| Response time (ON, OFF) | | 1 ms max. | 3 ms max. | 1 ms max. |
| Operation mode | | Wire-selectable | Switch selectable | |
| Indicators | | Light indicator (red), stability indicator (green) | | |
| Enclosure rating | IEC 144 | IP67 | | |
| | NEMA | 1, 3, 4X, 6, 12 | | |
| Housing material | | Metal | | |
| Light source | | Infrared LED | | |
| Ambient temperature | | Operating: -25 to 55 °C | | |