

S8 Series Contrast Sensors

Contrast Sensor



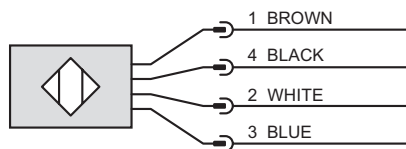
- Datalogic® print mark contrast sensor
- RGB light emission
- Horizontal spot orientation
- 6 – 12mm sensing distance
- 12 to 30VDC operating voltage
- Selectable Light On/Dark On
- NPN or PNP
- 25 kHz switching frequency
- 316L stainless steel or plastic housing
- Teach-in sensitivity adjustment
- 4-pin M8 quick-disconnect or 150mm cable with M12 quick-disconnect
- IP67/IP69K
- Purchase cable separately
- Mounting brackets also available



| S8 Series Contrast Sensors Selection Chart | | | | | | | | | |
|--|----------|-------------------------|------------------|---------------------|-----------------------------|---------------------------|---------------------------------------|-----------|------------|
| Part Number | Price | Sensing Range | Spot Orientation | Switching Frequency | Output State | Logic | Connection | Wiring | Dimensions |
| Stainless Steel | | | | | | | | | |
| <u>S8-MR-5-W13-NN</u> | \$103.00 | 6–12 mm [0.2–0.5 in] | Horizontal | 25kHz | Light On/Dark On Selectable | NPN | 4-pin M8 quick-disconnect | Diagram 1 | Figure 1 |
| <u>S8-MR-5-W13-PP</u> | \$103.00 | | | | | PNP | | | |
| Plastic | | | | | | | | | |
| <u>S8-PR-3-W13-NN</u> | \$76.00 | 6–12 mm [0.2–0.5 in] | Horizontal | 25kHz | Light On/Dark On Selectable | NPN | 150mm cable with M12 quick-disconnect | Diagram 1 | Figure 2 |
| <u>S8-PR-3-W13-PP</u> | \$76.00 | | | | | PNP | | | |
| <u>S8-PR-5-W13-NN</u> | \$74.00 | | | | | 4-pin M8 quick-disconnect | Figure 3 | | |
| <u>S8-PR-5-W13-PP</u> | \$74.00 | | | | | | | | |

Wiring diagrams

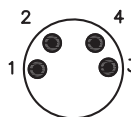
Diagram 1



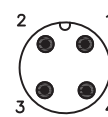
- Pin 1 – Supply Voltage
 Pin 4 – NPN/PNP Output
 Pin 2 – Remote Input
 Pin 3 – 0 VDC

Connectors

M8 connector



M12 connector

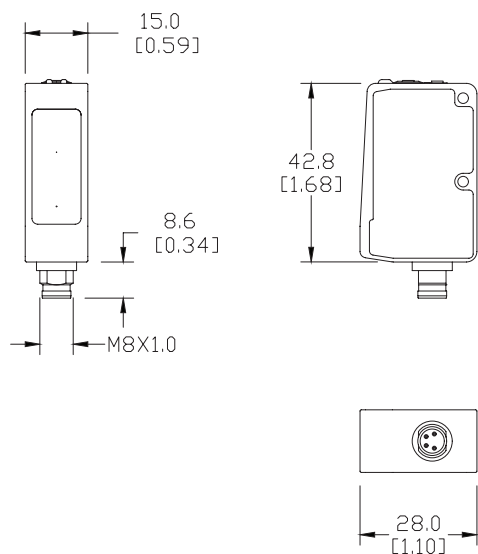
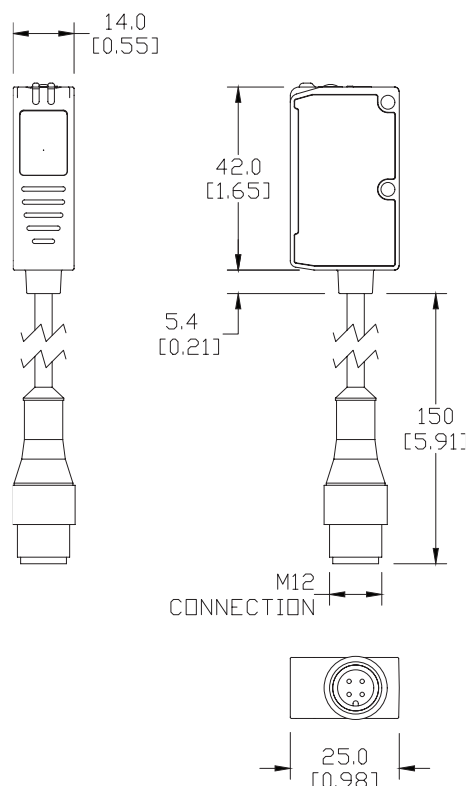
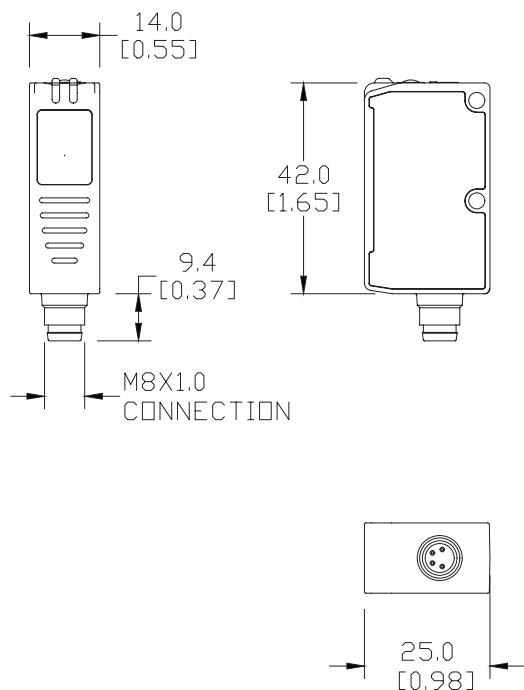


Note: Wiring colors are based on AutomationDirect 4-pole cable assemblies. Class 2 power supply required.

S8 Series Contrast Sensors

Dimensions

mm [inch]

Figure 1**Figure 2****Figure 3**See our website: www.AutomationDirect.com for complete Engineering drawings.

S8 Series Contrast Sensors

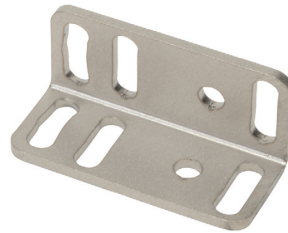
| Specifications | |
|--|---|
| Sensing Distance | 6–12 mm [0.2–0.5 in] |
| Spot Dimension | 3x1 mm ² |
| Spot Orientation | Horizontal |
| Emission | RGB LEDs: Blue [465nm]/ Green [520nm]/Red [630nm] with automatic selection |
| Sensitivity | Yes via teach-in button/remote signal |
| Output Type | NPN or PNP; Light On/Dark On selectable |
| Operating Voltage | 12 to 30 VDC |
| No-load Supply Current | ≤ 30mA |
| Operating (Load) Current | ≤ 100mA |
| Off-state (Leakage) Current | Max source current: 40 µA Max sink current: 200 µA |
| Voltage Drop | ≤ 2V |
| Switching Frequency | 25kHz |
| Response Time | 20µs |
| Differential Travel | <20mV |
| Jitter | 10µS |
| Ripple | ≤2 Vpp |
| Time Delay Before Availability (tv) | N/A |
| Reverse Polarity Protection | Yes |
| Short-Circuit Protection | Yes |
| Operating Temperature | -10–55 °C (14–131 °F) |
| Protection Degree (DIN 40050) | IP67 (S8-PR) / IP69K (S8-MR) |
| Indication/Switch Status | Output LED (Yellow) / Ready LED (Green) |
| Housing Material | ABS (S8-PR) / INOX AISI 316L (S8-MR) |
| Sensing Face Material | Glass window; PC (S8-PR) lens / PMMA (S8-MR) window |
| Shock | EN60068-2-27 |
| Vibration | EN60068-2-6 |
| Weight | 12g (0.42 oz) max. (S8-PR connector) 50 g (1.76 oz) max pig-tail (S8-PR pig-tail) 70 g (2.5 oz) max (S8-MR connector) |
| Connectors | M8 4-pole connector / 150mm cable with M12 4-pole connector (S8-PR pigtail) |
| Agency Approvals | CE cULus E227487 |

Note: To obtain the most current agency approval information– see the Agency Approval Checklist section on the specific part number's web page.

Accessories for S8 Series Contrast Photoelectric Sensors

Mounting Brackets

| Accessories for S8 Series Contrast Photoelectric Sensors | | | | |
|--|---------|--|----------------------------|-------------|
| Part Number | Price | Description | Drawing Link | Weight [lb] |
| <u>ST-S8-FRM</u> | \$8.75 | Datalogic mounting bracket, vertical, 304 stainless steel. For use with S8 series contrast sensors. | <u>PDF</u> | 0.48 |
| <u>ST-5072</u> | \$11.00 | Datalogic mounting bracket, right-angle, 304 stainless steel. For use with S8 series contrast sensors. | <u>PDF</u> | 0.10 |

**ST-S8-FRM****ST-5072**