

# S8 Series Contrast Sensors



## Contrast Sensor

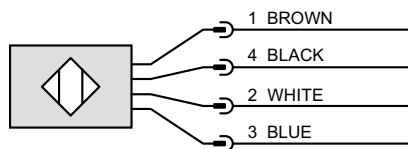
- Datalogic® print mark contrast sensor
- RGB light emission
- Horizontal spot orientation
- 6 – 12mm sensing distance
- 12 to 30VDC operating voltage
- Light-on/Dark-on Selectable
- NPN or PNP
- 25 kHz switching frequency
- 316L stainless steel or plastic housing
- Teach-in sensitivity adjustment
- 4-pin M8 quick-disconnect or 150mm cable with M12 quick-disconnect (Purchase cable separately)
- IP67/IP69K
- 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
<b>Stainless Steel</b>									
<a href="#">S8-MR-5-W13-NN</a>	\$111.00	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
<a href="#">S8-MR-5-W13-PP</a>	\$111.00					PNP			
<b>Plastic</b>									
<a href="#">S8-PR-3-W13-NN</a>	\$82.00	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
<a href="#">S8-PR-3-W13-PP</a>	\$82.00					PNP			
<a href="#">S8-PR-5-W13-NN</a>	\$80.00					NPN	4-pin M8 quick-disconnect		Figure 3
<a href="#">S8-PR-5-W13-PP</a>	\$80.00					PNP			

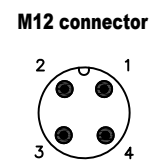
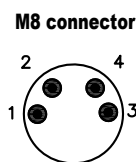
## Wiring diagrams

Diagram 1



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

## Connectors



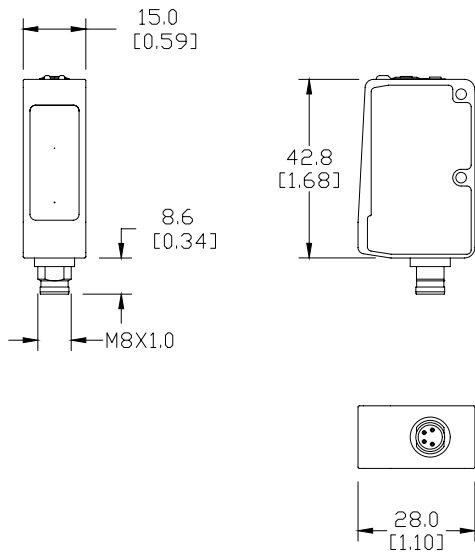
Note: Wiring colors are based on AutomationDirect 4-pole cable assemblies. Class 2 power supply required.

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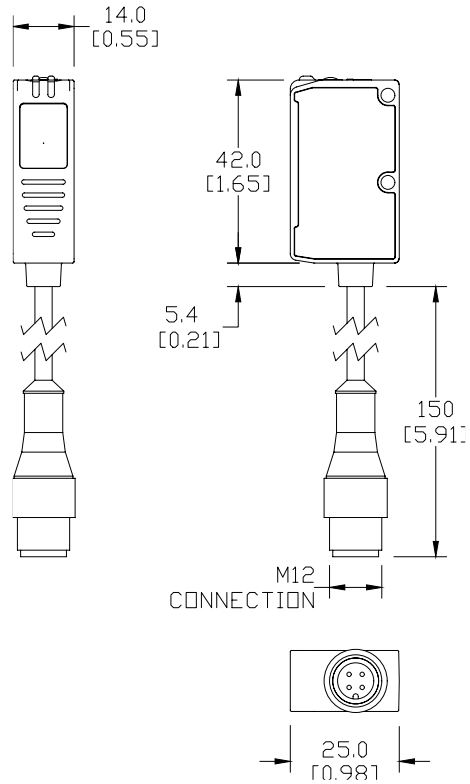
## Dimensions

mm [inches]

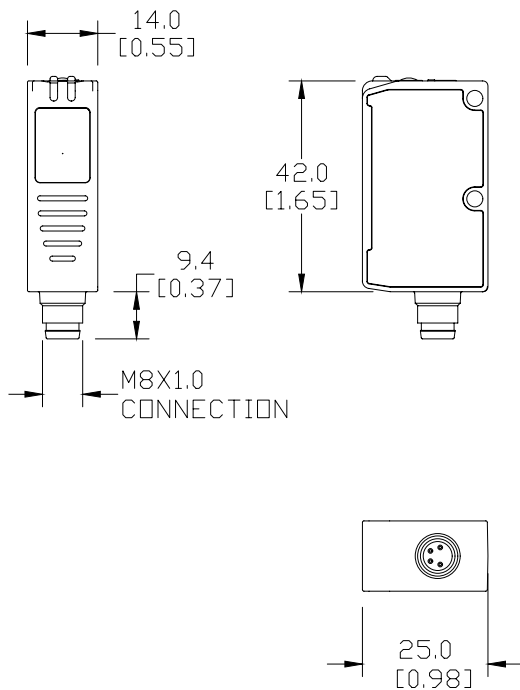
**Figure 1**



**Figure 2**



**Figure 3**



See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.

# S8 Series Contrast Sensors

Specifications	
<b>Sensing Distance</b>	6–12 mm [0.2–0.5 in]
<b>Spot Dimension</b>	3x1 mm <sup>2</sup>
<b>Spot Orientation</b>	Horizontal
<b>Emission</b>	RGB LEDs: Blue [465nm]/ Green [520nm]/Red [630nm] with automatic selection
<b>Sensitivity</b>	Yes via teach-in button/remote signal
<b>Output Type</b>	NPN or PNP; Light-On/Dark-On selectable
<b>Operating Voltage</b>	12 to 30 VDC
<b>No-load Supply Current</b>	≤ 30mA
<b>Operating (Load) Current</b>	≤ 100mA
<b>Off-state (Leakage) Current</b>	Max source current: 40 μA Max sink current: 200 μA
<b>Voltage Drop</b>	≤ 2V
<b>Switching Frequency</b>	25 kHz
<b>Response Time</b>	20μs
<b>Differential Travel</b>	<20mV
<b>Jitter</b>	10μS
<b>Ripple</b>	≤2 Vpp
<b>Time Delay Before Availability (tv)</b>	N/A
<b>Reverse Polarity Protection</b>	Yes
<b>Short-Circuit Protection</b>	Yes
<b>Operating Temperature</b>	-10 to 55°C [14 to 131°F]
<b>Protection Degree (DIN 40050)</b>	IP67 (S8-PR) / IP69K (S8-MR)
<b>Indication/Switch Status</b>	Output LED (Yellow) / Ready LED (Green)
<b>Housing Material</b>	ABS (S8-PR) / INOX AISI 316L (S8-MR)
<b>Sensing Face Material</b>	Glass window; PC (S8-PR) lens / PMMA (S8-MR) window
<b>Shock</b>	EN60068-2-27
<b>Vibration</b>	EN60068-2-6
<b>Weight</b>	12g [0.42 oz] max. (S8-PR connector) 50g [1.76 oz] max pig-tail (S8-PR pig-tail) 70g [2.5 oz] max (S8-MR connector)
<b>Connectors</b>	M8 4-pole connector / 150mm cable with M12 4-pole connector (S8-PR pigtail)
<b>Agency Approvals</b>	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]
<a href="#"><u>ST-S8-FRM</u></a>	\$9.25	Datalogic mounting bracket, vertical, 304 stainless steel. For use with S8 series contrast sensors.	<a href="#"><u>PDF</u></a>	0.48
<a href="#"><u>ST-5072</u></a>	\$12.00	Datalogic mounting bracket, right-angle, 304 stainless steel. For use with S8 series contrast sensors.	<a href="#"><u>PDF</u></a>	0.10



[ST-S8-FRM](#)



[ST-5072](#)