

## Top five product features!

- *Bright red Class 1 laser light source provides visual indication of beam alignment*
- *Small package, long range! Compact design is ideal for applications with limited mounting space*
- *Advanced microprocessor provides powerful signal processing and enables automatic adjustments to maximize safety margin in an application*
- *Sensor continuously monitors the strength of the received signal and provides a visual LED alert under marginal operating conditions*
- *Programmable light on / dark on for application flexibility*

## Differentiates target from background at less than 0.5 mm

High resolution background suppression laser sensors are ideal for precise sensing applications. The sensor can differentiate between the target and the background at less than 0.5 mm. This type of accuracy is critical for assembly automation applications such as part present and inspection. The OJ's collimated laser beam provides the same beam width up to a distance of 200 mm.

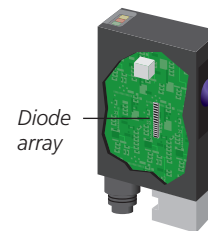
An advanced microprocessor provides powerful signal processing and analysis capabilities. This enables the OJ to learn the characteristics of both the target and the background in a specific application.

During initial installation, the automatic calibration will determine the light conditions of both the target-present and target-not-present conditions. The sensitivity of the OJ will then be automatically adjusted so there is a maximum safety margin under each condition.

For application versatility, OJ sensors are available in two lens configurations, side sensing and front sensing.



## Diode array sensing technology



*The OJ incorporates diode array technology that enables the sensor to differentiate between the target and the background.*

*The sensing element contains 63 diode receivers that are placed on an integrated circuit. The array*

*is extremely small allowing it to fit inside the OJ's miniature housing.*



## Product + accessory selector

Function		Range	Output	Switching Frequency	Spot Ø at Max. Range	Supply Current	Light Source	Part No.	List Price (1-pc.)
Diffuse background suppression		7...150 mm	LO/DO, PNP	1000 Hz	0.8 mm	13 mA	Class 1 Laser	<b>OJ5058</b>	<b>\$227.00</b>
Diffuse background suppression		15...200 mm	LO/DO, PNP	1000 Hz	1 x 2 mm	13 mA	Class 1 Laser	<b>OJ5054</b>	<b>\$227.00</b>
		15...200 mm	LO/DO, NPN	1000 Hz	1 x 2 mm	13 mA	Class 1 Laser	<b>OJ5055</b>	<b>\$227.00</b>
Polarized retro-reflective		0...8 m	LO/DO, PNP	2000 Hz	12 mm	15 mA	Class 1 Laser	<b>OJ5036</b>	<b>\$202.00</b>
Thru-beam receiver		0...1 m	LO/DO, PNP	1200 Hz	–	12 mA	Class 1 Laser	<b>OJ5042</b>	<b>\$96.00</b>
Thru-beam transmitter		0...1 m	–	–	4 mm	12 mA	Class 1 Laser	<b>OJ5041</b>	<b>\$152.00</b>
Thru-beam receiver		0...15 m	LO/DO, PNP	1200 Hz	–	12 mA	Class 1 Laser	<b>OJ5039</b>	<b>\$96.00</b>
Thru-beam transmitter		0...15 m	–	–	24 mm	12 mA	Class 1 Laser	<b>OJ5038</b>	<b>\$152.00</b>

### Optional Accessories

Type	Description	Part No.	List Price (1-pc.)
	Fine adjust bracket for OJsensor	<b>E20976</b>	<b>\$26.00</b>
	Ball and socket bracket for OJ	<b>E20974</b>	<b>\$13.00</b>
	10 x 50 mm reflector	<b>E20988</b>	<b>\$16.00</b>
	50 x 50 mm reflector	<b>E20722</b>	<b>\$15.00</b>
	10 mm reflector	<b>E20990</b>	<b>\$12.00</b>
	19 mm reflector	<b>E20993</b>	<b>\$12.00</b>

### Cordsets

Type	Description	Part No.	List Price (1-pc.)
	M8 Pico DC (4-pin) 2 m, PUR	<b>EVC150</b>	<b>\$15.00</b>
	M8 Pico DC (4-pin) 5 m, PUR	<b>EVC151</b>	<b>\$18.00</b>
	M8 Pico DC (4-pin) 2 m, PUR	<b>EVC153</b>	<b>\$15.00</b>
	M8 Pico DC (4-pin) 5 m, PUR	<b>EVC154</b>	<b>\$18.00</b>



OJ sensors are available in two lens configurations, side sensing and front sensing. Visit [www.ifm.com/us](http://www.ifm.com/us)

### Technical Specs

Lens material:	Glass; except Part Nos. OJ5054, OJ5055, OJ5058: PMMA
Light source:	Red light, 650 nm
Housing material:	ABS, Fixture: die cast zinc LED window: SEPS Push button: SEPS
Supply voltage:	10...30 VDC
Max Load current:	200 mA
Voltage drop:	<2.5 V
Leakage current:	negligible
Operating temperature:	14...140 °F (-10...60 °C)
Protection:	IP67

CLASS 1 LASER PRODUCT  
IEC60825-1:2007  
21CFR PART1040

Class 1 Laser

### Simple and comprehensive website



Data sheets, application examples, software downloads, virtual product demos... just one click away.

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