

OPT Series Color Sensors



- 12 switching outputs for evaluation of detailed color analysis thanks to spectral measurement in ROYGBV color space
- Integrated LED technology ensures ideal adjustment of light intensity
- Reliable evaluation of measured values even with distance fluctuation
- Sensor settings selectable at graphical display
- Can be operated in the scanning as well as the through-beam mode
- IP67

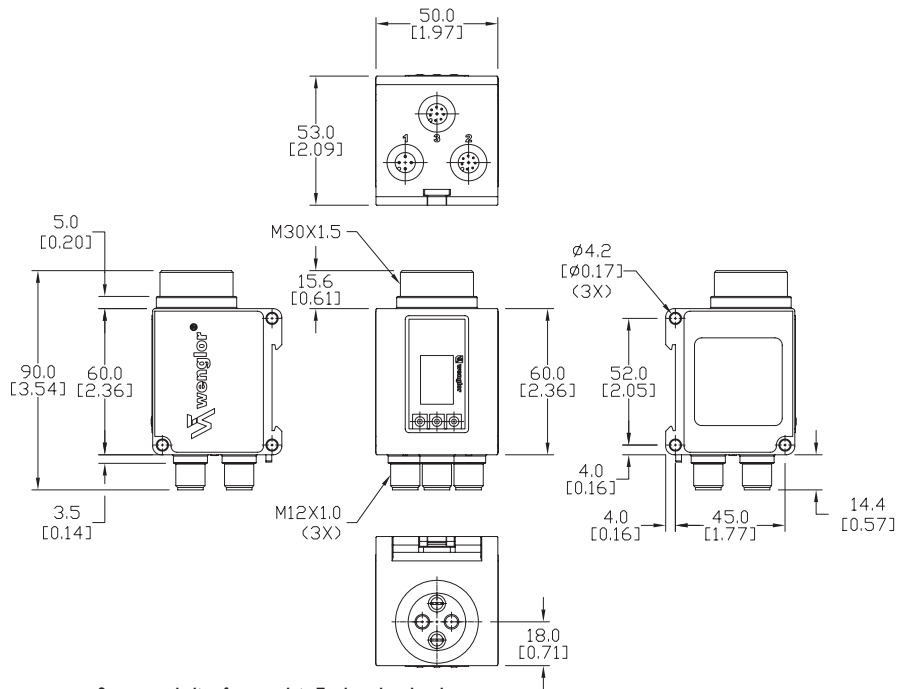
OPT2022 Specifications	
Part Number	OPT2022
Price	
Spectral sensitivity	450 to 700nm
Light source	White light
Service Life (T = +25°C)	50,000h
Max. ambient light	10,000 Lux
Operating voltage	10 to 30VDC
Supply voltage with IO-link	18 to 30VDC
No-load supply current	~ 260mA
Switching frequency	2kHz
Response time	~ 50µs x filter
On/Off delay	0 to 10,000 ms
Temperature range	-25 to 60°C [-13 to 140°F]
Switching outputs	12 NPN/PNP
Switching output voltage drop	1.5 V
Operating (load) current	100mA
Short circuit protection	yes
Reverse polarity protection	yes
Digital inputs	3
Protection class	III
Setting method	Teach-In
Housing material	Plastic
Degree of protection	IP67
Connection	4-pin M12 and (2) 8-pin M12
DIN-Rail mounting	35mm
Selectable menu language	yes
Operating mode	Selectable light-on/dark-on
Approvals	CE, RoHs, cULus,

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

OPT Series Color Sensors

Dimensions

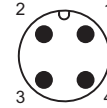
mm [inch]



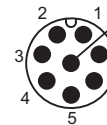
See our website: for complete Engineering drawings.

Connectors

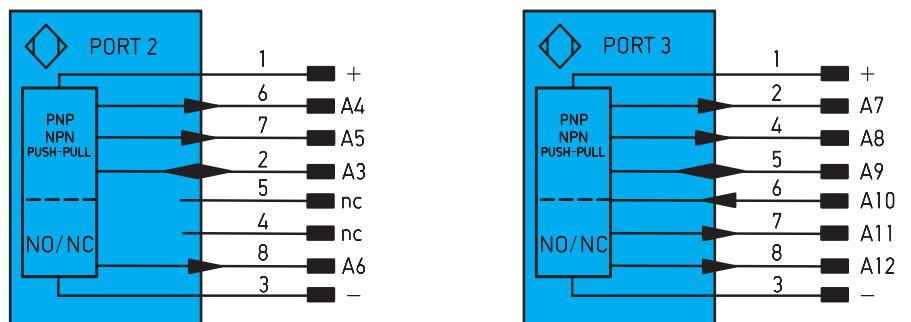
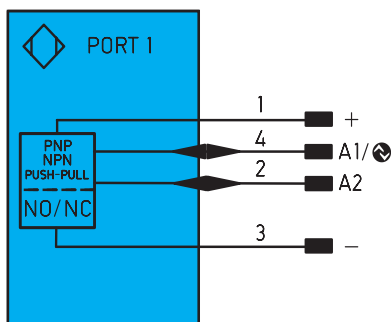
4-Pin M12 connector



8-Pin M12 connector



Wiring Diagrams



Legend

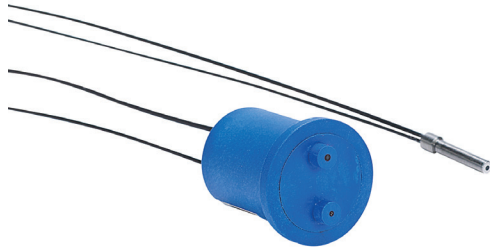
+	Supply Voltage +
-	Supply Voltage 0V
A1/IO-Link	Switching output / IO-Link
A4/5/6/8/9/10/11/12	Switching output N.O./N.C.
A2	Input/A2 Switching output
A3	Input/A3 Switching output
A7	Input/A7 Switching output

OPT Series Color Sensors Cable

Plastic Fiber Optic Cable

OPT2075 Diffuse Reflex Mode

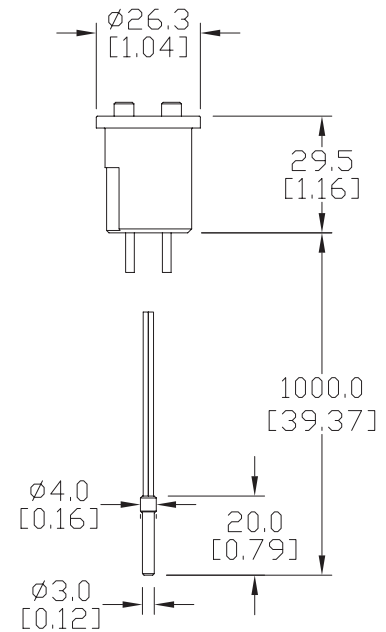
- Compatible with the OPT2022 6-channel sensor
- Designed for installation in tight spaces
- IP68



OPT2075 Specifications	
Part Number	OPT2075
Price	
Optical Fiber Core Ø	0.5 mm
Sensing Distance with OPT series	10mm
Fiber Length (L)	1m
Fiber Bending Radius	15mm
Spot Diameter	0.5 to 2 mm
Temperature Range	-40 to 85°C [-40 to 185°F]
Fiber Materials	PMMA
Sleeve Materials	PE (black)
Head Materials	Stainless steel
Jacket Diameter	1.3 mm
Fiber Distribution	Coaxial arrangement
Opening Angle	55°
Light Emission	Straight

Dimensions

mm [inch]



See our website: for complete Engineering drawings.

OPT Series Color Sensors Cable

Glass Fiber Optic Cable

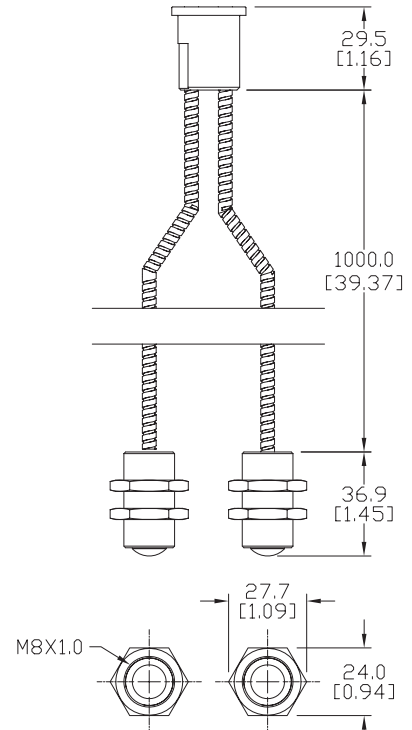
OPT2087 Through-Beam Mode



OPT2087 Specifications	
Part Number	OPT2087
Price	
Optical Fiber Core Ø	3mm
Sensing Distance with OPT series	600mm
Fiber Length (L)	1m
Fiber Bending Radius	50mm
Free Cut	No
Head Size	M18
Temperature Range	0 to 60°C [32 to 140°F]
Fiber Materials	Glass
Sleeve Materials	Brass (CuZn) nickel-plated
Head Materials	Anodized aluminum
Fiber Diameter	3mm
Fiber Distribution	Statistical mixture
Opening Angle	30°

Dimensions

mm [inch]



See our website: for complete Engineering drawings.

OPT Series Color Sensors Cable

Glass Fiber Optic Cable

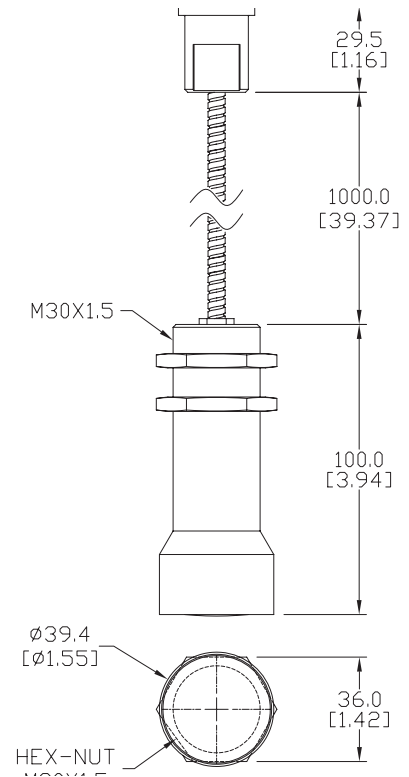
OPT2088 Diffuse (Reflex) Mode



OPT2088 Specifications	
Part Number	OPT2088
Price	
Optical Fiber Core Ø	3mm
Sensing Distance with OPT series	100mm
Fiber Length (L)	1m
Fiber Bending Radius	50mm
Free Cut	No
Head Size	M30
Temperature Range	0 to 60°C [32 to 140°F]
Fiber Materials	Glass
Sleeve Materials	Brass (CuZn) nickel-plated
Head Materials	Anodized aluminum
Fiber Diameter	3mm
Fiber Distribution	Statistical mixture

Dimensions

mm [inch]



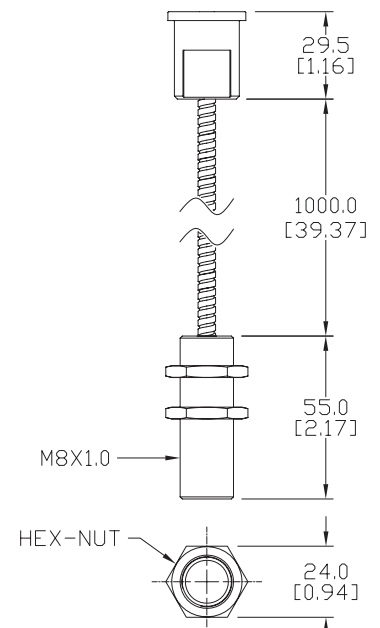
OPT2089 Diffuse (Reflex) Mode



OPT2089 Specifications	
Part Number	OPT2089
Price	
Optical Fiber Core Ø	1.6 mm
Sensing Distance with OPT series	18mm
Fiber Length (L)	1m
Fiber Bending Radius	50mm
Free Cut	No
Head Size	M18
Temperature Range	0 to 60°C [32 to 140°F]
Fiber Materials	Glass
Sleeve Materials	Brass (CuZn) nickel-plated
Head Materials	Anodized aluminum
Fiber Diameter	1.6 mm
Fiber Distribution	Statistical mixture

Dimensions

mm [inch]



See our website: for complete Engineering drawings.