





**DC - 3 WIRE – EXTENDED
SENSING DISTANCE**
**Brass, Nickel Plated (BN),
Cylindrical, Threaded,
10-30V DC, 200mA**
1 LED for Output Energized

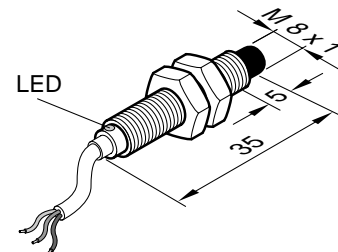
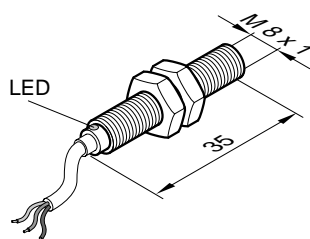
- **Up to 2 times sensing distance over standard sensors**
- **Reduces accidental collisions**
- **Ideal for applications where larger sensing distance is required but mounting space is tight**
- **Carries C mark**

- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

M8 Flush Mount				M8 Non-Flush Mount		
Sensing Distance 2mm (.08 in.)				3mm (.12 in.)		
Cable or Connector Style Cat. No.	Cable	64	65	Cable	64	65
PNP	Normally Open 	9981-4000	9981-4064	9981-4200	9981-4264	9981-4265
	Normally Closed 					
NPN	Normally Open 	9981-4100	9981-4164	9981-4300	9981-4364	9981-4365
	Normally Closed 					
Ripple Voltage	≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Voltage Range	10V-30V	10V - 30V	10V - 30V	10V - 30V	10V - 30V	10V - 30V
Supply Current	≤12 mA	≤12 mA	≤12 mA	≤12 mA	≤12 mA	≤12 mA
Max. Load Current	200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
Voltage Drop Across Sensor	≤2.4V	≤2.4V	≤2.4V	≤2.4V	≤2.4V	≤2.4V
Max. Leakage Current	≤10 µA	≤10 µA	≤10 µA	≤10 µA	≤10 µA	≤10 µA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Hysteresis	≤15%	≤15%	≤15%	≤15%	≤15%	≤15%
Temperature Drift	≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Repeatability	.2mm (.008 in.)	.2mm (.008 in.)	.2mm (.008 in.)	.3mm (.012 in.)	.3mm (.012 in.)	.3mm (.012 in.)
Front Cap Material	PBTP	PBTP	PBTP	PBTP	PBTP	PBTP

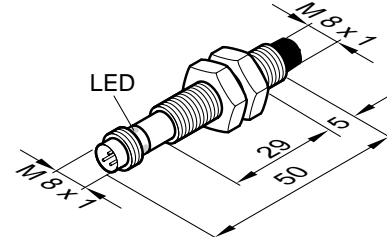
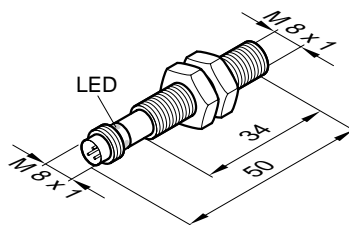
Fixed Cable

PVC 2m (6ft. 6in.). For 5m (16 ft. 5 in.) cable length, change the last two digits of the part number to 02. For other cable lengths and/or PUR cable, please consult Altech. Non-metallic locknuts for M8 and Brass, Nickel Plated (BN) locknuts for M12 through M30.



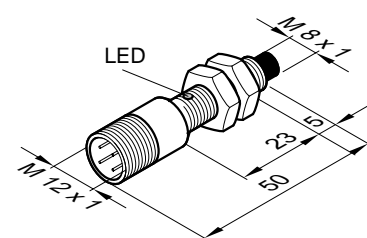
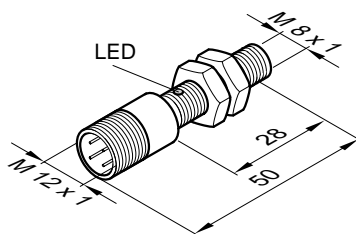
64 Style Connector

3-pin, Pico style, 8mm (.31 in.) supplied with non-metallic locknuts for M8 and Brass, Nickel Plated (BN) locknuts for M12 through M30.



50/65 Style Connector

4-pin, Micro style, 12mm (.47 in.) supplied with Non-Metallic locknuts for M8 and Brass, Nickel Plated (BN) locknuts for M12 through M30.



Metric/in. Conversion Table

1.0 mm = .04 in.	29.0 mm = 1.14 in.
5.0 mm = .20 in.	30.0 mm = 1.18 in.
8.0 mm = .31 in.	34.0 mm = 1.33 in.
12.0 mm = .47 in.	35.0 mm = 1.37 in.
23.0 mm = .90 in.	40.0 mm = 1.57 in.
27.0 mm = 1.06 in.	50.0 mm = 1.96 in.
28.0 mm = 1.10 in.	

This table converts millimeters to inches in reference to the illustrations included on these pages

M12 Flush Mount

4mm (.16 in.)

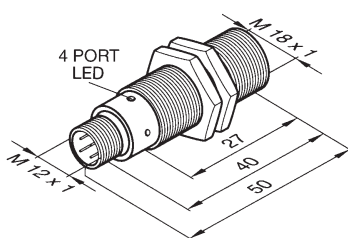
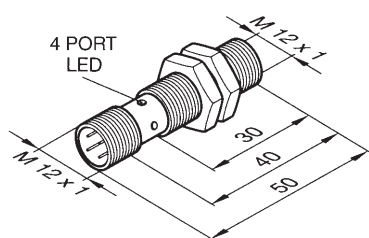
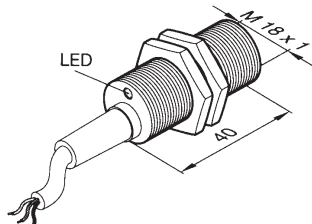
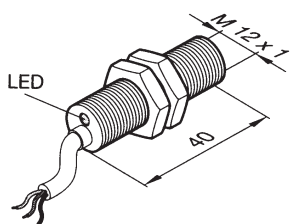
Cable	65
9982-4900	9982-4950
≤10%	≤10%
10V - 30V	10V - 30V
≤12mA	≤12 mA
200 mA	200 mA
≤2.4V	≤2.4V
10 μA	10 μA
1500 Hz	1500 Hz
≤15%	≤15%
≤10%	≤10%
.40mm (.016 in.)	.40mm (.016 in.)
PBTB	PBTB

M18 Flush Mount

8mm (.31 in.)

Cable	65
9984-4900	9984-4950
≤10%	≤10%
10V - 30V	10V - 30V
≤12 mA	≤12 mA
200 mA	200 mA
≤2.4V	≤2.4V
10μA	10μA
500 Hz	500 Hz
≤15%	≤15%
≤10%	≤10%
.80mm (.03 in.)	.80mm (.03 in.)
PBTB	PBTB

Note: Sensor dimensions in mm.



Accessories

2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

64 Connector	8000-5220	PVC, Straight
64 Connector	8000-5230	PVC, Right Angle, 2LED, PNP
64 Connector	8000-5240	PVC, Right Angle, 2LED, NPN

50/65 Connector	8000-5110	PVC, Straight
50/65 Connector	8000-5120	PVC, Right Angle
50/65 Connector	8000-5150	PVC, Right Angle, 2LED, NPN
50/65 Connector	8000-5160	PVC, Right Angle, 2LED, PNP

Change last digit of connector number to 5 for 5 meter cable

Refer to pages 116-121 for more cable information

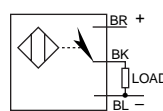
Mounting Brackets – see Pages 114-115

Wiring Diagrams

Note: Wire colors are applicable to cable purchased from Altech

PNP

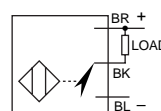
Fixed Cable



Normally Open

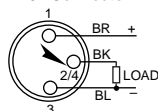
NPN

Fixed Cable



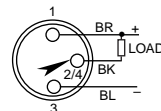
Normally Open

64 Connector



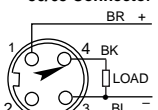
Normally Open

64 Connector



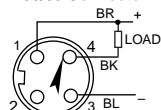
Normally Open

50/65 Connector



Normally Open

50/65 Connector



Normally Open