

DC - 3 WIRE – L SERIES
Brass, Nickel Plated (BN),
Cylindrical, Threaded,
18-30V DC, 120mA
1 LED for Output Energized

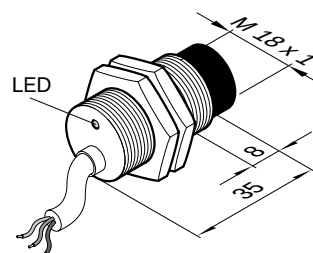
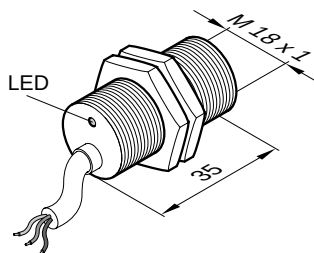
- **Short Body Sensors**
- **Economically priced**
- **Connector options**
- **Carries C mark**

- 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)

M18 Flush Mount			M18 Non-Flush Mount	
Sensing Distance			8mm (.31in.)	
5mm (.20 in.)			Cable	65
Cable or Connector Style	Cat. No.			
PNP	Normally Open		9984-2000	9984-2065
	Normally Closed			
NPN	Normally Open		9984-2100	9984-2165
	Normally Closed			
Ripple Voltage	≤10%		≤10%	≤10%
Voltage Range	18V - 30V		18V - 30V	18V - 30V
Supply Current	≤10 mA		≤10 mA	≤10 mA
Max. Load Current	120 mA		120 mA	120 mA
Voltage Drop Across Sensor	≤1.5V		≤1.5V	≤1.5V
Max. Leakage Current	≤10 µA		≤10 µA	≤10 µA
Switching Frequency	1000Hz		500Hz	500Hz
Hysteresis	≤15%		≤15%	≤15%
Temperature Drift	≤10%		≤10%	≤10%
Repeatability	.50mm (.02 in.)		.80mm (.031in.)	.80mm (.031 in.)
Front Cap Material	PBTP		PBTP	PBTP

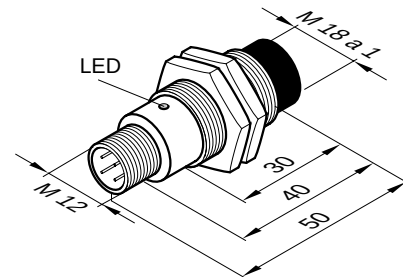
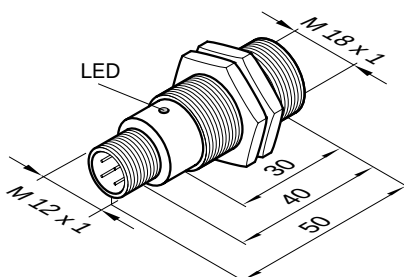
Fixed Cable

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. Supplied with Brass, Nickel Plated (BN) locknuts.



65 Style Connector

4-pin, Micro style, 12mm (.47 in.) supplied with Brass, Nickel Plated (BN) locknuts.



Metric/in. Conversion Table

1.5 mm = .06 in.	23.0 mm = .91 in.
2.0 mm = .08 in.	28.0 mm = 1.10 in.
4.0 mm = .16 in.	30.0 mm = 1.18 in.
5.0 mm = .20 in.	32.0 mm = 1.26 in.
6.0 mm = .23 in.	34.0 mm = 1.38 in.
8.0 mm = .31 in.	40.0 mm = 1.57 in.
10.0 mm = .39 in.	50.0 mm = 1.97 in.
12.0 mm = .47 in.	51.0 mm = 2.01 in.
15.0 mm = .59 in.	60.0 mm = 2.36 in.
18.0 mm = .70 in.	80.0 mm = 3.12 in.

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

Accessories

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

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

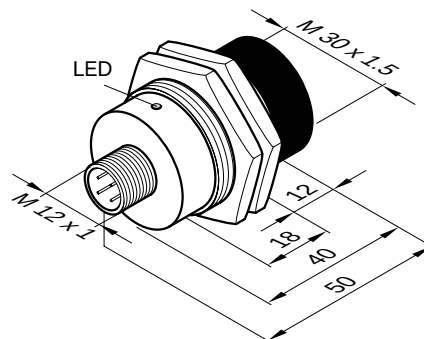
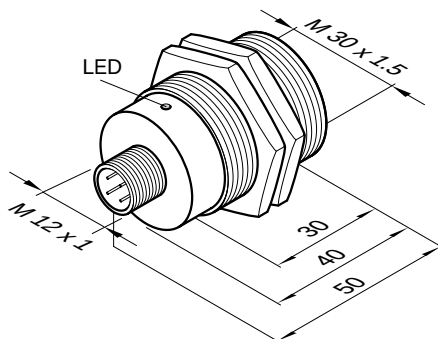
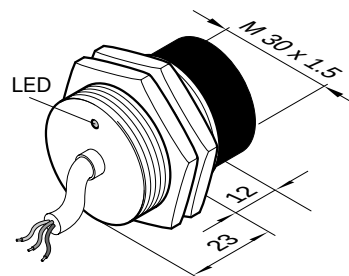
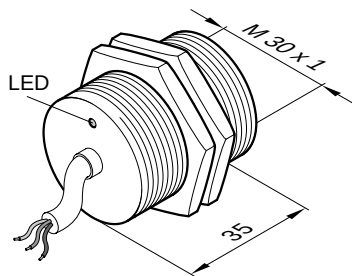
Change last digit of connector number to 5 for 5 meter cable

Refer to pages 116-121 for more cable information

Mounting Brackets – see Pages 114-115

M30 Flush Mount 10mm (.39 in.)		M30 Non-Flush Mount 15mm (.59 in.)	
Cable	65	Cable	65
9986-2000	9986-2065	9986-2200	9986-2265
9986-2100	9986-2165	9986-2300	9986-2365
≤10%	≤10%	≤10%	≤10%
18V - 30V	18V - 30V	18V - 30V	18V - 30V
≤10 mA	≤10 mA	≤10 mA	≤10 mA
120 mA	120 mA	120 mA	120 mA
≤1.5V	≤1.5V	≤1.5V	≤1.5V
≤10 μA	≤10 μA	≤10 μA	≤10 μA
500Hz	500Hz	300Hz	300Hz
≤15%	≤15%	≤15%	≤15%
≤10%	≤10%	≤10%	≤10%
1.0mm (.039 in.)	1.0mm (.039 in.)	1.5mm (.059 in.)	1.5mm (.059 in.)
PBTP	PBTP	PBTP	PBTP

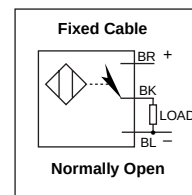
Note: Sensor dimensions in mm.



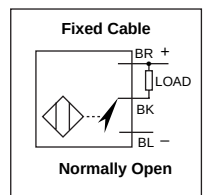
Wiring Diagrams

Note: Wire colors are applicable on cables purchased from Altech

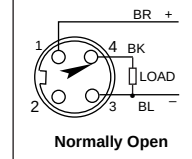
PNP



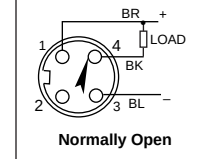
NPN



65 Connector



65 Connector



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Altech:](#)

[9986-2100](#) [9984-2065](#) [9986-2300](#) [9984-2000](#) [9984-2365](#) [9984-2265](#) [9984-2300](#) [9986-2000](#) [9986-2200](#)