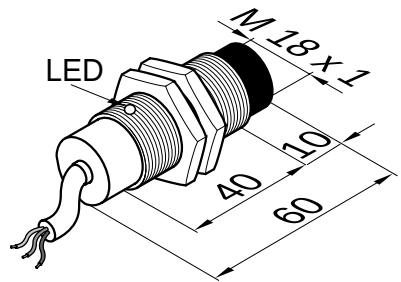
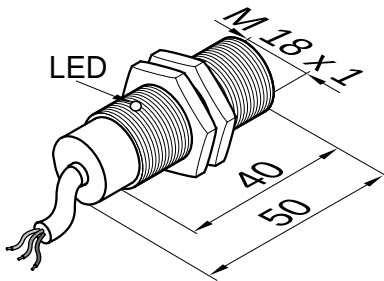


DC - 3WIRE
EXTENDED RANGE PLUS
Brass, Nickel Plated (BN),
Cylindrical, Threaded,
10-30V DC, 200mA
1 LED for Output Energized

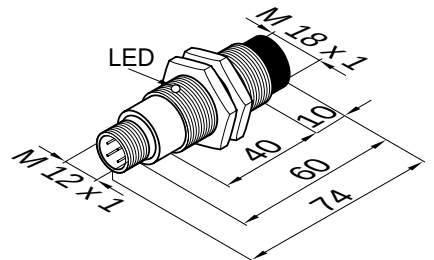
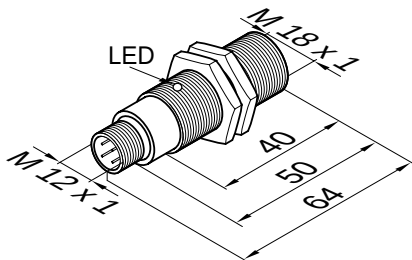
- Up to 3 times the sensing distance
- Ideal for applications where large sensors will not fit
- Carries ϵ mark
- IEC(529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Sensing ranges from 3mm (.12 in.) to 40mm (1.57 in.)
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Temperature Range: -25 to 70°C (-13 to 158°F)

M18 Flush Mount			M18 Non-Flush Mount	
Sensing Distance 12mm (0.4 in.)			20mm (0.8 in.)	
Cable or Connector Style Cat. No.	Cable	65	Cable	65
PNP	Normally Open 	9984-5000	9984-5200	9984-5265
	Normally Closed 			
NPN	Normally Open 			
	Normally Closed 			
Ripple Voltage	≤20%	≤20%	≤20%	≤20%
Voltage Range	10V-30V	10V - 30V	10V - 30V	10V - 30V
Supply Current	≤20 mA	≤20 mA	≤20 mA	≤20 mA
Max. Load Current	200 mA	200 mA	200 mA	200 mA
Voltage Drop Across Sensor	≤2.4V	≤2.4V	≤2.4V	≤2.4V
Max. Leakage Current	≤100 μ A	≤100 μ A	≤100 μ A	≤100 μ A
Switching Frequency	500 Hz	500 Hz	200 Hz	200 Hz
Hysteresis	≤10%	≤10%	≤10%	≤10%
Temperature Drift	≤10%	≤10%	≤10%	≤10%
Housing Material	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Repeatability	0.6mm (.02 in.)	0.6mm (.02 in.)	1mm (.04 in.)	1mm (.04 in.)

Fixed Cable
PVC 2m (6 ft. 6 in.). Supplied with
Brass, Nickel Plated (BN) locknuts.



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



Metric/in. Conversion Table

1.0 mm = .04 in.	52.0 mm = 2.04 in.
4.0 mm = .16 in.	54.0 mm = 2.12 in.
6.0 mm = .23 in.	56.0 mm = 2.20 in.
8.0 mm = .31 in.	58.0 mm = 2.28 in.
12.0 mm = .47 in.	60.0 mm = 2.36 in.
40.0 mm = 1.57 in.	62.0 mm = 2.44 in.
44.0 mm = 1.73 in.	66.0 mm = 2.60 in.
45.0 mm = 1.77 in.	70.0 mm = 2.75 in.
50.0 mm = 1.97 in.	

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

M30 Flush Mount

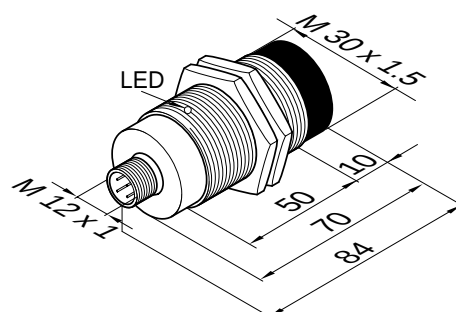
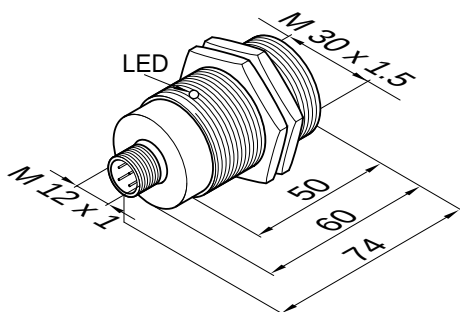
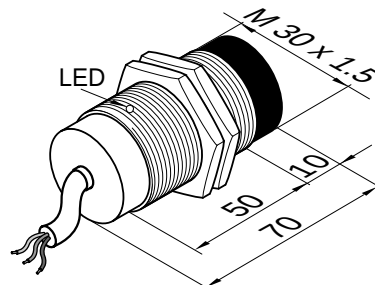
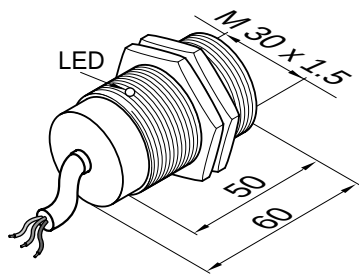
22mm (0.9 in.)

M30 Non-Flush Mount

40mm (1.57 in.)

Cable	65	Cable	65
9986-5000	9986-5065	9986-5200	9986-5265
≤20%	≤20%	≤20%	≤20%
10V - 30V	10V - 30V	10V - 30V	10V - 30V
≤20 mA	≤20 mA	≤20 mA	≤20 mA
200 mA	200 mA	200 mA	200 mA
≤2.4V	≤2.4V	≤2.4V	≤2.04V
100 μA	100 μA	100μA	100μA
300 Hz	300 Hz	100 Hz	100 Hz
≤10%	≤10%	≤10%	≤15%
≤10%	≤10%	≤10%	≤10%
Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
1.1mm (.045 in.)	1.1mm (.045 in.)	2mm (.078 in.)	2mm (.078 in.)

Note: Sensor dimensions in mm.



Accessories

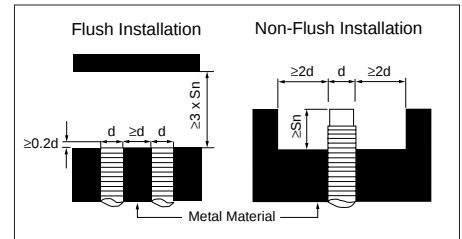
2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

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



General Mounting – You must maintain minimum distance between adjacent and opposite sensors in addition to non-target metals as specified in the drawings above. Flush mount sensors must extend at least 0.2 times the sensor diameter above the adjacent metal housing. Non-flush mount sensors must extend a distance greater than the sensing distance (Sn). Please contact Altech for any installation assistance

Wiring Diagrams

Note: Wire colors are applicable to cable purchased from Altech

PNP

