

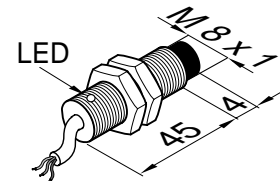
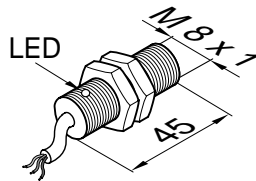
DC - 3WIRE
EXTENDED RANGE PLUS
Brass, Nickel Plated (BN),
Cylindrical, Threaded,
10-30V DC, 200mA
1 LED for Output Energized

- Up to 3 times the sensing distance
- Ideal for applications where large sensors will not fit
- Carries $\text{C}\epsilon$ 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)

M8 Flush Mount				M8 Non-Flush Mount			
Sensing distance 3mm (0.1 in.)				6mm (0.2 in.)			
Cable or Connector Style	Cat. No.	Cable	64	65	Cable	64	65
PNP	Normally Open	9981-5000	9981-5064	9981-5065	9981-5200	9981-5264	9981-5265
	Normally Closed						
NPN	Normally Open						
	Normally Closed						
Ripple Voltage		≤20%	≤20%	≤20	≤20%	≤20%	≤20%
Voltage Range		10-30V	10-30V	10-30V	10-30V	10-30V	10-30V
Supply Current		≤20mA	≤20mA	≤20mA	≤20mA	≤20mA	≤20mA
Max. Load Current		200mA	200mA	200mA	200mA	200mA	200mA
Voltage Drop Across Sensor		≤2.4V	≤2.4V	≤2.4V	≤2.4V	≤2.4V	≤2.4V
Max. Leakage Current		≤100μA	≤100μA	≤100μA	≤100μA	≤100μA	≤100μA
Switching Frequency		1000Hz	1000Hz	1000Hz	500Hz	500Hz	500Hz
Hysteresis		10%	10%	10%	10%	10%	10%
Temperature Drift		≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Housing Material		Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Repeatability		.15mm (.005 in.)	.15mm (.005 in.)	.15mm (.005 in.)	.3mm (.01 in.)	.3mm (.01 in.)	.3mm (.01 in.)

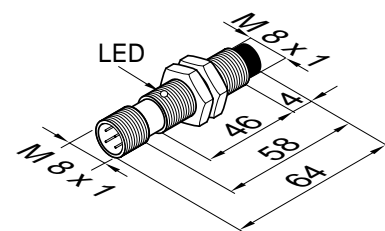
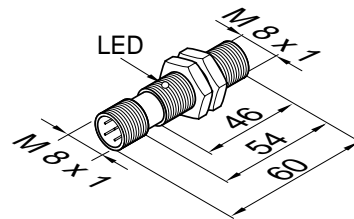
Fixed Cable

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



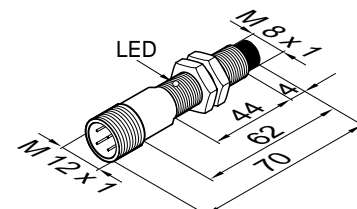
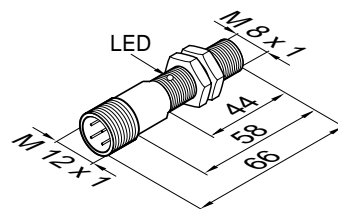
64 Connector

3-pin, Pico style, 8mm (.31 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 = 1.39 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

Accessories

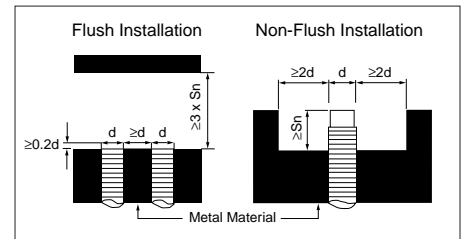
2 meter (6 ft. 6 in.) DC Cable Assemblies for Quick Disconnect Sensors

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

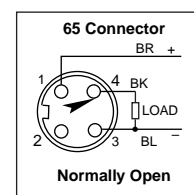
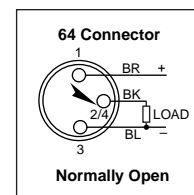
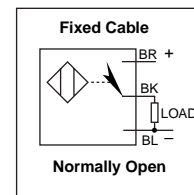


General Mounting – You must maintain minimum distance between adjacent and opposite sensors in addition to non-target metals as specified in the drawings above. Flush mount sensors must extend at least 0.2 times the sensor diameter above the adjacent metal housing. Non-flush mount sensors must extend 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



M12 Flush Mount 6mm (0.2 in.)

M12 Non-Flush Mount 10mm (0.4 in.)

Cable	65	Cable	65
9982-5000	9982-5065	9982-5200	9982-5265
≤20%	≤20%	≤20%	≤20%
10-30V	10-30V	10-30V	10-30V
≤20mA	≤20mA	≤20mA	≤20mA
200mA	200mA	200mA	200mA
≤2.4V	≤2.4V	≤2.4V	≤2.4V
≤100μA	≤100μA	≤100μA	≤100μA
800Hz	800Hz	400Hz	400Hz
10%	10%	10%	10%
≤10%	≤10%	≤10%	≤10%
Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
.3mm (.01 in.)	.3mm (.01 in.)	.5mm (.02 in.)	.5mm (.02 in.)

Note: Sensor dimensions in mm.

