

DC - 3 WIRE – GL SERIES
Brass, Nickel Plated (BN),
Cylindrical, Threaded,
10-60V DC, 400mA,
2 LED's for Operating Voltage
and Output Energized

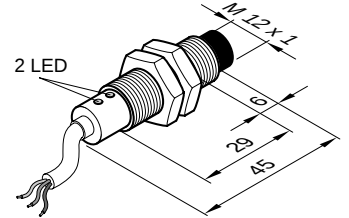
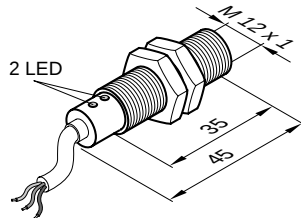
- **Higher Current Output**
- **Higher Voltage Range**
- **Carries $\text{C}\epsilon$ mark**

- 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)

M12 Flush Mount				M12 Non-Flush Mount			
Sensing Distance		2mm (.08 in.)		4mm (.16 in.)			
Cable or Connector Style Cat. No.		Cable	64	65	Cable	64	65
PNP	Normally Open 	9982-4000	9982-4064	9982-4065	9982-4200	9984-4264	9982-4265
	Normally Closed 	9982-4400	9982-4464	9982-4465	9982-4600	9982-4664	9982-4665
NPN	Normally Open 	9982-4100	9982-4164	9982-4165	9982-4300	9982-4364	9982-4365
	Normally Closed 	9982-4500	9982-4564	9982-4565	9982-4700	9982-4764	9982-4765
Ripple Voltage		≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Voltage Range		10V - 60V	10V - 60V	10V - 60V	10V - 60V	10V - 60V	10V - 60V
Supply Current		≤10 mA	≤10 mA	≤10 mA	≤10 mA	≤10 mA	≤10 mA
Max. Load Current		400 mA	400 mA	400 mA	400 mA	400 mA	400 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		2000Hz	2000Hz	2000Hz	1000Hz	1000Hz	1000Hz
Hysteresis		≤15%	≤15%	≤15%	≤15%	≤15%	≤15%
Temperature Drift		≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Repeatability		.20mm (.008 in.)	.20mm (.008 in.)	.20mm (.008 in.)	.40mm (.016 in.)	.40mm (.016 in.)	.40mm (.016 in.)
Front Cap Material		PBTP	PBTP	PBTP	PBTP	PBTP	PBTP

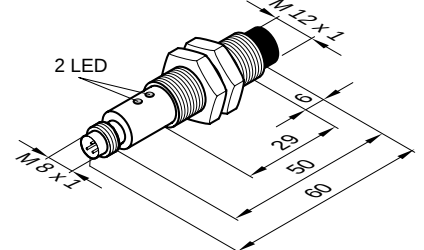
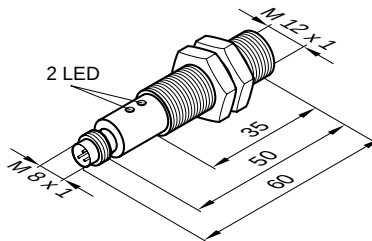
Fixed Cable

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



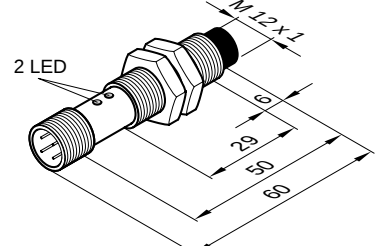
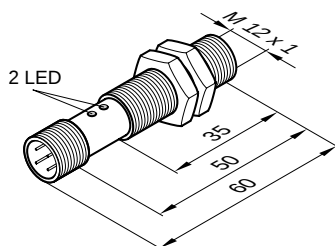
64 Style Connector

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.	29.0 mm = 1.14 in.
6.0 mm = .23 in.	35.0 mm = 1.37 in.
8.0 mm = .31 in.	45.0 mm = 1.77 in.
12.0 mm = .47 in.	50.0 mm = 1.97 in.
18.0 mm = .70 in.	60.0 mm = 2.36 in.
.27.0 mm = 1.06 in.	80.0 mm = 3.15 in.

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

M18 Flush Mount

5mm (.20 in.)

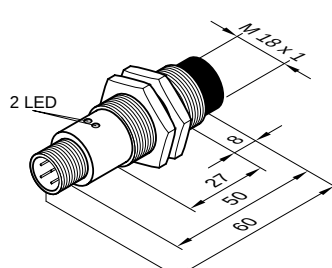
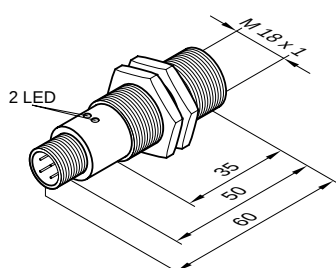
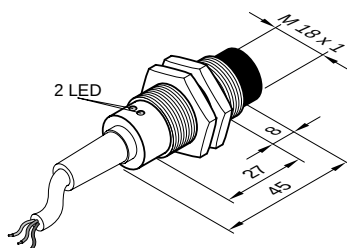
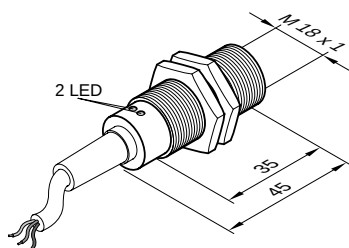
Cable	65
9984-4000	9984-4065
9984-4400	9984-4465
9984-4100	9984-4165
9984-4500	9984-4565
≤10%	≤10%
10V - 60V	10V - 60V
≤10 mA	≤10 mA
400 mA	400 mA
≤2.4V	≤2.4V
≤10 μA	≤10 μA
1000Hz	1000Hz
≤15%	≤15%
≤10%	≤10%
.25mm (.01 in.)	.25mm (.01 in.)
PBTP	PBTP

M18 Non-Flush Mount

8mm (.31 in.)

Cable	65
9984-4200	9984-4265
9984-4600	9984-4665
9984-4300	9984-4365
9984-4700	9984-4765
≤10%	≤10%
10V - 60V	10V - 60V
≤10 mA	≤10 mA
400 mA	400 mA
≤2.4V	≤2.4V
≤10 μA	≤10 μA
500Hz	500Hz
≤15%	≤15%
≤10%	≤10%
.40mm (.016 in.)	.40mm (.016 in.)
PBTP	PBTP

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, NPN
64 Connector	8000-5240	PVC, Right Angle, 2LED, NPN

65 Connectors, 4 PIN - 3 Wire cable (PIN 1, 3, 4) :

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, NPN

65 Connectors, 4 PIN - 4 Wire cable (PIN 1, 2, 3, 4) :

65 Connector	8000-5280	PVC Right Angle
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Change last digit of connector number to 5 for 5 meter cable

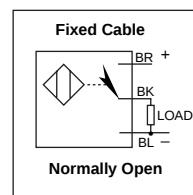
Refer to pages 116-121 for more cable information

Mounting Brackets - see Pages 114-115

Wiring Diagrams

Note: Wire colors are applicable on cables purchased from Altech

PNP



NPN

