

**DC - 3 WIRE – OEM SERIES**  
**Brass, Nickel Plated (BN),**  
**Cylindrical, Threaded,**  
**M8– 10-30V DC, 200mA,**  
**M12– 10-35V DC, 200mA,**  
**360° LED for Output Energized**

- **Up to 2 times sensing distance of standard sensors**
- **Up to 1.5 times switching frequency**
- **Carries CE mark**
- **High Performance Sensors with Low Pricing at OEM Volumes**
- **Lifetime Warranty**
- **Manufactured in an ISO 9001 Facility**

- IEC (60529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Temperature Range: -25 to 70°C (-13 to 158°F)

M8 Flush Mount				M8 Non-Flush Mount			
Sensing Distance 2mm (.08 in.)				Sensing Distance 3mm (.12 in.)			
Cable or Connector Style	Cat. No.	Cable	64	50	Cable	64	50
<b>PNP</b>	Normally Open	9981-1000	9981-1064	9981-1050	9981-1200	9981-1264	9981-1250
	Normally Closed	9981-1400	9981-1464	9981-1450	9981-1600	9981-1664	9981-1650
<b>NPN</b>	Normally Open	9981-1100	9981-1164	9981-1150	9981-1300	9981-1364	9981-1350
	Normally Closed	9981-1500	9981-1564	9981-1550	9981-1700	9981-1764	9981-1750
Ripple Voltage		≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Voltage Range		10V - 30V	10V - 30V	10V - 30V	10V - 30V	10V - 30V	10V - 30V
Supply Current		≤10 mA	≤10 mA	≤10 mA	≤10 mA	≤10 mA	≤10 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		3000Hz	3000Hz	3000Hz	2500Hz	2500Hz	2500Hz
Hysteresis		typ. 5%, ≤10% max.	typ. 5%, ≤10% max.	typ. 5%, ≤10% max.	typ. 5%, ≤10% max.	typ. 5%, ≤10% max.	typ. 5%, ≤10% max.
Temperature Drift		≤10%	≤10%	≤10%	≤10%	≤10%	≤10%
Repeatability		≤2%	≤2%	≤2%	≤2%	≤2%	≤2%
Front Cap Material		PBTP	PBTP	PBTP	PBTP	PBTP	PBTP

**Fixed Cable**

PVC 2m (6 ft. 6 in.). 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.



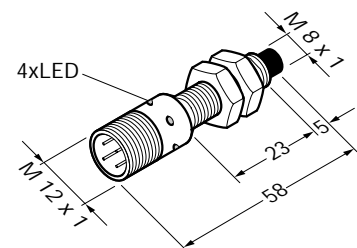
**64 Style Connector**

3-pin, Pico style, 8mm (.31 in.) supplied with Brass, Nickel Plated (BN) locknuts.



**50 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.	33.0 mm = 1.30 in.
5.0 mm = .20 in.	34.0 mm = 1.34 in.
6.0 mm = .23 in.	35.0 mm = 1.37 in.
8.0 mm = .31 in.	40.0 mm = 1.58 in.
10.0 mm = .39 in.	45.0 mm = 1.77 in.
12.0 mm = .47 in.	50.0 mm = 1.97 in.
23.0 mm = .91 in.	58.0 mm = 2.28 in.
28.0 mm = 1.10 in.	65.0 mm = 2.56 in.
29.0 mm = 1.14 in.	

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

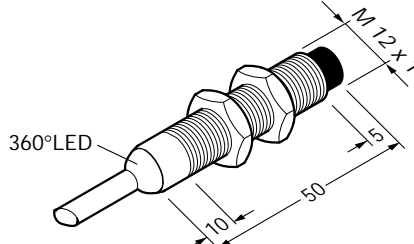
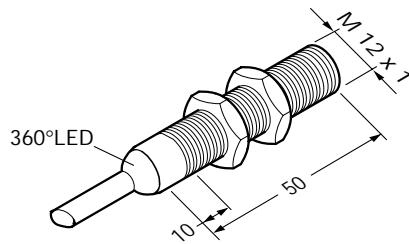
### M12 Flush Mount 4mm (.16 in.)

Cable	50
9982-1000	9982-1050
9982-1400	9982-1450
9982-1100	9982-1150
9982-1500	9982-1550
≤10%	≤10%
10V - 35V	10V - 35V
≤10 mA	≤10 mA
200 mA	200 mA
≤2.4V	≤2.4V
≤10 μA	≤10 μA
2500Hz	2500Hz
typ. 5%, ≤10% max.	typ. 5%, ≤10% max.
≤10%	≤10%
≤2%	≤2%
PBTP	PBTP

### M12 Non-Flush Mount 6mm (.24 in.)

Cable	50
9982-1200	9982-1250
9982-1600	9982-1650
9982-1300	9982-1350
9982-1700	9982-1750
≤10%	≤10%
10V - 35V	10V - 35V
≤10 mA	≤10 mA
200 mA	200 mA
≤2.4V	≤2.4V
≤10 μA	≤10 μA
2000Hz	2000Hz
typ. 5%, ≤10% max.	typ. 5%, ≤10% max.
≤10%	≤10%
≤2%	≤2%
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

#### 50 Connectors, 4 PIN - 3 Wire cable (PIN 1, 3, 4)

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

#### 50 Connectors, 4 PIN - 4 Wire cable (PIN 1, 2, 3, 4)

- 50 Connector 8000-5280 PVC Right Angle

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

For additional information refer to pages 116-121 of our Inductive Proximity Sensor catalog or contact ALTECH.

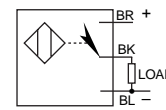
For Mounting Brackets refer to pages 114-115 of our Inductive Proximity Sensor catalog or contact ALTECH.

### Wiring Diagrams

Note: Wire colors are applicable on cables purchased from Altech

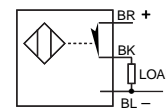
#### PNP

##### Fixed Cable



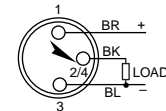
Normally Open

##### Fixed Cable



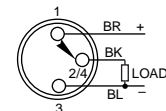
Normally Closed

##### 64 Connector



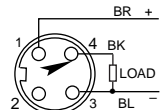
Normally Open

##### 64 Connector



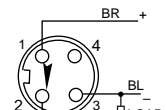
Normally Closed

##### 50 Connector



Normally Open

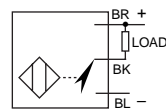
##### 50 Connector



Normally Closed

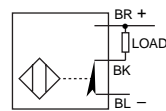
#### NPN

##### Fixed Cable



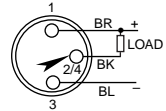
Normally Open

##### Fixed Cable



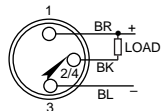
Normally Closed

##### 64 Connector



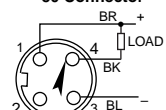
Normally Open

##### 64 Connector



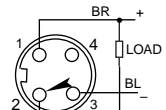
Normally Closed

##### 50 Connector



Normally Open

##### 50 Connector



Normally Closed

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