

**DC - 3 WIRE-SHORT BODY**  
**Brass, Nickel Plated (BN), Cylindrical,**  
**Threaded, 10-30V DC, 250mA,**  
**LED for Output Energized**

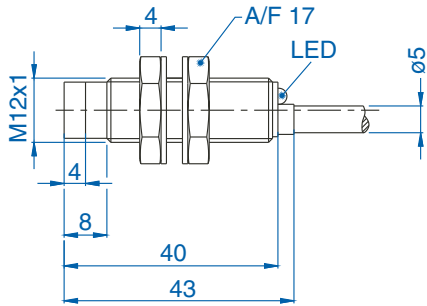
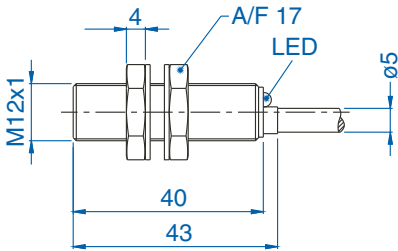


- IEC (529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Transient Voltage Protection
- Temperature Range: -25 to 70°C (-13 to 158°F)

| M12 Flush Mount                   |               |                                                                                   |                  |                   | M12 Non-Flush Mount |                   |
|-----------------------------------|---------------|-----------------------------------------------------------------------------------|------------------|-------------------|---------------------|-------------------|
| Sensing Distance                  |               |                                                                                   | 2mm (0.08 in.)   |                   | 4mm (.16 in.)       |                   |
| Cable or Connector Style Cat. No. |               |                                                                                   | Cable            | 65                | Cable               | 65                |
| PNP                               | Normally Open |  | AIK12F02AP024-2M | AIK12F02AP024-Q65 | AIK12N04AP024-2M    | AIK12N04AP024-Q65 |
|                                   | Normally Open |  | AIK12F02AN024-2M | AIK12F02AN024-Q65 | AIK12N04AN024-2M    | AIK12N04AN024-Q65 |
| Ripple Voltage                    |               |                                                                                   | ≤ 10%            |                   | ≤ 10%               |                   |
| Voltage Range                     |               |                                                                                   | 10-30V           |                   | 10-30V              |                   |
| No-Load Current                   |               |                                                                                   | ≤ 15 mA          |                   | ≤ 15mA              |                   |
| Max. Load Current                 |               |                                                                                   | 250 mA           |                   | 250 mA              |                   |
| Voltage Drop Across Sensor        |               |                                                                                   | ≤ 2.5V           |                   | ≤ 2.5V              |                   |
| Max. Leakage Current              |               |                                                                                   | ≤ 1 μA           |                   | 1μA                 |                   |
| Switching Frequency               |               |                                                                                   | 1000 Hz          |                   | 1000 Hz             |                   |
| Hysteresis                        |               |                                                                                   | ≤ 0.2mm          |                   | ≤ 0.6mm             |                   |
| Temperature Drift                 |               |                                                                                   | ≤ ±4μm/K         |                   | ±8μm/K              |                   |
| Repeatability                     |               |                                                                                   | ≤ 0.1mm          |                   | ≤ 0.3mm             |                   |

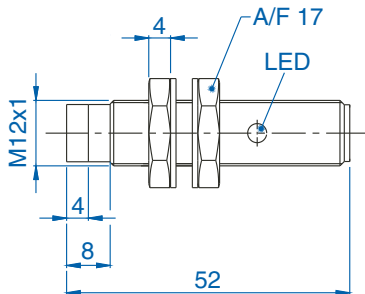
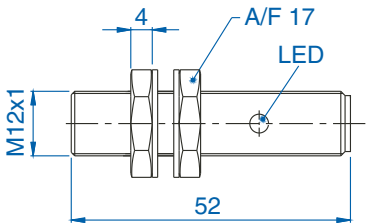
**Fixed Cable**

PVC 2m (6ft. 6in.). For other cable lengths and/or PUR cable, please consult Altech. Supplied with brass, nickel plated locknuts.



**65 Style Connector**

4-pin, Micro style, 12mm (.47 in.). Supplied with brass, nickel plated locknuts.



## Metric/in. Conversion Table

|                   |                    |
|-------------------|--------------------|
| 1.5 mm = .06 in.  | 23.0 mm = .89 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 = 1.34 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.

If you do not see a covered dimension, multiply mm by 0.03937 to convert to inches.

## M18 Flush Mount

5mm (.20 in.)

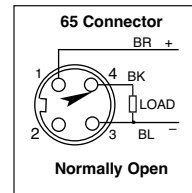
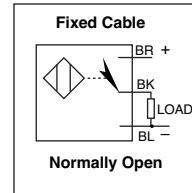
## M18 Non-Flush Mount

8mm (.31 in.)

| Cable            | 65                | Cable            | 65                |
|------------------|-------------------|------------------|-------------------|
| AIK18F05AP024-2M | AIK18F05AP024-Q65 | AIK18N08AP024-2M | AIK18N08AP024-Q65 |
| AIK18F05AN024-2M | AIK18F05AN024-Q65 | AIK18N08AN024-2M | AIK18N08AN024-Q65 |
| ≤10%             |                   | ≤10%             |                   |
| 10-30V           |                   | 10V-30V          |                   |
| ≤15 mA           |                   | ≤15 mA           |                   |
| 250 mA           |                   | 250 mA           |                   |
| ≤2.5V            |                   | ≤2.5V            |                   |
| ≤1 μA            |                   | ≤1 μA            |                   |
| 500 Hz           |                   | 500 Hz           |                   |
| ≤0.5mm           |                   | ≤0.8mm           |                   |
| ≤±10μm/K         |                   | ≤±16μm/K         |                   |
| ≤0.2mm           |                   | ≤0.4mm           |                   |

## Wiring Diagrams

### PNP



### NPN

