

# DC - 3 WIRE-SHORT BODY

## Brass, Nickel Plated (BN), Cylindrical, Threaded, 10-30V DC, 250mA, LED for Output Energized

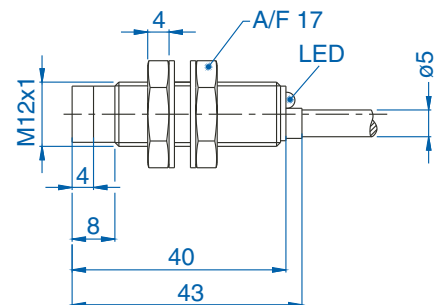
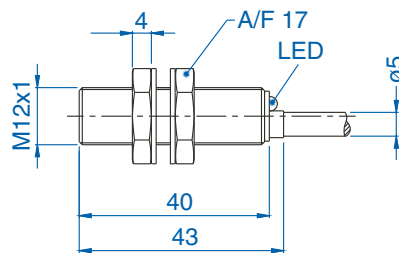


- IEC (529) IP67 (NEMA 1, 3, 4, 6, 12, 13) Protection
- Short Circuit Protection
- Overload Protection
- Reverse Polarity Protection
- Wire Break Resistance
- Transient Voltage Protection
- Temperature Range: -25 to 70°C (-13 to 158°F)

| M12 Flush Mount                    |               |       |                                    | M12 Non-Flush Mount |                   |
|------------------------------------|---------------|-------|------------------------------------|---------------------|-------------------|
| Sensing Distance<br>2mm (0.08 in.) |               |       |                                    | 4mm (.16 in.)       |                   |
| Cable or Connector Style Cat. No.  |               | Cable | 65                                 | Cable               | 65                |
| <b>PNP</b>                         | 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             |                   |

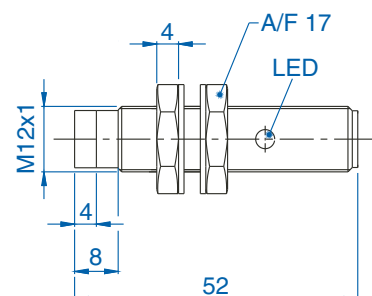
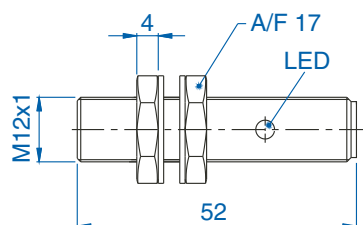
### Fixed Cable

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.



Note: Sensor dimensions in mm.

## 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<br>5mm (.20 in.) |                   | M18 Non-Flush Mount<br>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            |

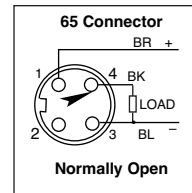
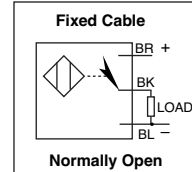
  

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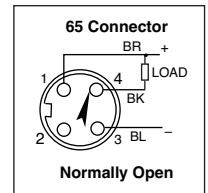
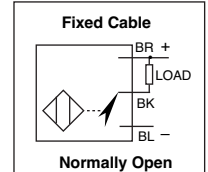
## Wiring Diagrams

Note: Wire colors are applicable on cables purchased from Altech

### PNP



### NPN



Note: Sensor dimensions in mm.

# Mouser Electronics

Authorized Distributor

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[AIK12N04AP024-2M](#)