

LF40 Series Inductive Proximity Sensors

40 x 40 x 66 mm rectangular plastic - DC



LF40-AP-2H

- Two shielded and two unshielded models available
- Sensing face has five selectable positions.
- IP67 rated
- LED power (green) and status (yellow) indicators are visible at a wide angle.
- Rotatable and locking M12 connector
- Single and complementary outputs available
- Purchase cable separately.
- Lifetime warranty

| LF40 Series DC Inductive Prox Selection Chart | | | | | | | | |
|---|---------|-----------------|------------|---------------------|-------|------------------------------|-----------|------------|
| Part Number | Price | Sensing Range | Housing | Output State | Logic | Connection | Wiring | Dimensions |
| LF40-AP-1H | \$39.00 | 20 mm (0.79 in) | Shielded | NO | PNP | M12 (12 mm) quick disconnect | Diagram 1 | Figure 1 |
| LF40-OP-1H | \$42.00 | 20 mm (0.79 in) | Shielded | NO/NC Complementary | PNP | M12 (12 mm) quick disconnect | Diagram 2 | Figure 1 |
| LF40-AP-2H | \$39.00 | 35 mm (1.38 in) | Unshielded | NO | PNP | M12 (12 mm) quick disconnect | Diagram 1 | Figure 1 |
| LF40-OP-2H | \$42.00 | 35 mm (1.38 in) | Unshielded | NO/NC Complementary | PNP | M12 (12 mm) quick disconnect | Diagram 2 | Figure 1 |

NOTE: CLASS 2 POWER SUPPLY REQUIRED

Wiring diagrams

Diagram 1

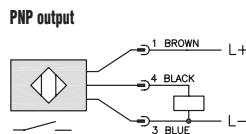
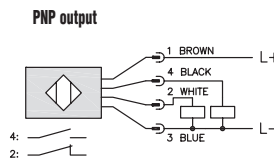


Diagram 2



Connector



LF40 Series Inductive Proximity Sensors

| LF40 Series Specifications | LF40-AP-1H | LF40-AP-2H | LF40-OP-1H | LF40-OP-2H |
|--|--|-----------------------------|-----------------------------|-----------------------------|
| Mounting Type | Shielded | Unshielded | Shielded | Unshielded |
| Nominal Distance | 20 mm ± 10% | 35 mm ± 10% | 20 mm ± 10% | 35 mm ± 10% |
| Operating Distance | 0 to 16.2 mm (0 to 0.64 in) | 0 to 28.3 mm (0 to 1.11 in) | 0 to 16.2 mm (0 to 0.64 in) | 0 to 28.3 mm (0 to 1.11 in) |
| Material Correction Factors | See the Material influence table | | | |
| Output Type | PNP, NO only | | PNP, NO NC Complementary | |
| Operating Voltage | 10 to 36 VDC | | | |
| No-load Supply Current | < 20 mA | | | |
| Operating (Load) Current | 200 mA | | | |
| Off-state (Leakage) Current | <0.1 mA | | | |
| Voltage Drop | <2.5 V | | | |
| Switching Frequency | 100 Hz | 80 Hz | 100 Hz | 80 Hz |
| Differential Travel (% of Nominal Distance) | 1 to 20 % of Sr | | | |
| Repeat Accuracy | NA | | | |
| Ripple | NA | | | |
| Time Delay Before Availability (tv) | NA | | | |
| Reverse Polarity Protection | Yes | | | |
| Short-Circuit Protection | Yes (non-latching) | | | |
| Operating Temperature | -25° to 70°C (-13° to 158°F) | | | |
| Protection Degree (DIN 40050) | IEC IP67 | | | |
| Indication/Switch Status | Power: Green Switching status: Yellow | | | |
| Housing Material | PPE: diecast zinc nickel-plated | | | |
| Sensing Face Material | Polyamide (PA) | | | |
| Shock Resistance / Vibration | See Proximity Sensor Terminology | | | |
| Tightening Torque | NA | | | |
| Weight | 146 g (5.15 oz) | 151 g (5.33 oz) | 147 g (5.19 oz) | 153 g (5.4 oz) |
| Connection | M12 quick disconnect | | | |
| Agency Approvals | cULus file E328811, CE, RoHS | | | |

Dimensions

mm [inches]

Figure 1

