

# LF40 Series Inductive Proximity Sensors

40 x 40 x 66 mm rectangular plastic - DC



**LF40-AP-2H**

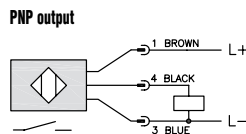
- Two shielded and two unshielded models available
- Sensing face has five selectable positions.
- IP67 rated
- LED power (green) and status (yellow) indicators are visible at a wide angle.
- Rotatable and locking M12 connector
- Single and complementary outputs available
- Purchase cable separately.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

LF40 Series DC Inductive Prox Selection Chart								
Part Number	Price	Sensing Range	Housing	Output State	Logic	Connection	Wiring	Dimensions
<b>LF40-AP-1H</b>	\$39.50	20 mm (0.79 in)	Shielded	NO	PNP	M12 (12 mm) quick disconnect	Diagram 1	Figure 1
<b>LF40-OP-1H</b>	\$42.50	20 mm (0.79 in)	Shielded	NO/NC Complementary	PNP	M12 (12 mm) quick disconnect	Diagram 2	Figure 1
<b>LF40-AP-2H</b>	\$39.50	35 mm (1.38 in)	Unshielded	NO	PNP	M12 (12 mm) quick disconnect	Diagram 1	Figure 1
<b>LF40-OP-2H</b>	\$42.50	35 mm (1.38 in)	Unshielded	NO/NC Complementary	PNP	M12 (12 mm) quick disconnect	Diagram 2	Figure 1

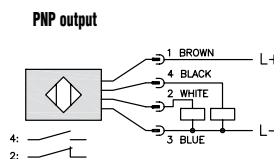
NOTE: CLASS 2 POWER SUPPLY REQUIRED

## Wiring diagrams

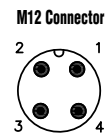
**Diagram 1**



**Diagram 2**



**Connector**



# LF40 Series Inductive Proximity Sensors

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

## Dimensions

mm [inches]

**Figure 1**

