

LF40 Series Inductive Proximity Sensors

40 x 40 x 66 mm rectangular plastic - DC



LF40-AP-2H

- Two Flush and two Non-flush 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 Proximity Selection Chart								
Part Number	Price	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Dimensions
LF40-AP-1H	\$45.50	20mm [0.79 in]	Flush	N.O.	PNP	M12 [12mm] quick-disconnect	Diagram 1	Figure 1
LF40-OP-1H	\$49.00	20mm [0.79 in]	Flush	N.O./N.C. Complementary	PNP	M12 [12mm] quick-disconnect	Diagram 2	Figure 1
LF40-AP-2H	\$45.50	35mm [1.38 in]	Non-flush	N.O.	PNP	M12 [12mm] quick-disconnect	Diagram 1	Figure 1
LF40-OP-2H	\$49.00	35mm [1.38 in]	Non-flush	N.O./N.C. Complementary	PNP	M12 [12mm] quick-disconnect	Diagram 2	Figure 1

Note: Class 2 power supply required

Wiring diagrams

Diagram 1

PNP output

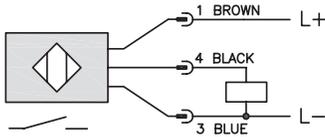
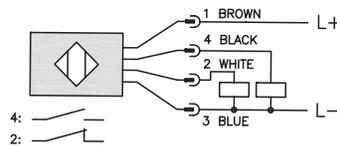


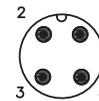
Diagram 2

PNP output



Connector

M12 Connector



LF40 Series Inductive Proximity Sensors

LF40 Series DC Inductive Proximity Specifications				
Model	LF40-AP-1H	LF40-AP-2H	LF40-OP-1H	LF40-OP-2H
Mounting Type	Flush	Non-flush	Flush	Non-flush
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, N.O. only		PNP, N.O. N.C. 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	100Hz	80Hz	100Hz	80Hz
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	146g [5.15 oz]	151g [5.33 oz]	147g [5.19 oz]	153g [5.4 oz]
Connection	M12 quick-disconnect			
Agency Approvals	cULus file E328811, CE, RoHS			

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Dimensions

mm [inches]

Figure 1

