

## Interactive Catalog Replaces Catalog Pages

Honeywell Sensing and Control has replaced the PDF product catalog with the new **Interactive Catalog**. The **Interactive Catalog** is a power search tool that makes it easier to find product information. It includes more installation, application, and technical information than ever before.



**Click this icon to try the new  
Interactive Catalog.**

---

**Sensing and Control**  
Honeywell Inc.  
11 West Spring Street  
Freeport, Illinois 61032



# Proximity Sensors

FL7M Series

## 12 to 30 mm Diameter Cylindrical Universal Voltage Sensors 2-Wire AC/DC Type



### FEATURES

- 20-250 VAC/VDC supply voltage
- Sealed to IP 67
- Short housings
- N.O. output
- Short circuit protection (DC only)
- Oil resistant vinyl cable
- "Exclusive" LED set indicator
- -25 to +70°C (-13 to +160°F) temperature range

**"EXCLUSIVE" LED Set Indicator** aids in positioning the sensor for optimum operate point. These sensors have a two-color LED indicator. When the LED is Red, the target is within the outer portion of the sensing zone. When the LED turns Green, the target is at the optimum sensing distance (80% of nominal sensing range). This feature aids in sensor installation and maintenance, and assures maximum operate reliability over the full temperature range.

### ORDER GUIDE

Sensor Package Style	Sensing Range mm (in.)	Wiring	LED Indicator	Sw. Freq.	Standard Target*	Output Type	Catalog Listing
12 mm (.47 in.)	3 (0.12)	Preleaded	SET	25/500 Hz	12 (.47)	N.O.	FL7M-3T7HD-M
	Shielded	Connector	SET	25/500 Hz	12 (.47)	N.O.	FL7M-3T7HD-CMG
18 mm (.71 in.)	7 (0.27)	Preleaded	SET	25/300 Hz	18 (.71)	N.O.	FL7M-7T7HD-M
	Shielded	Connector	SET	25/300 Hz	18 (.71)	N.O.	FL7M-7T7HD-CMG
30 mm (1.18 in.)	10 (0.39)	Preleaded	SET	25/500 Hz	30 (1.18)	N.O.	FL7M-10T7D-M
	Shielded	Connector	SET	25/500 Hz	30 (1.18)	N.O.	FL7M-10T7D-CMG

\* Square of mild steel, 1 mm (.04 in.) thick.

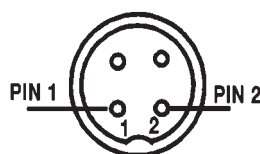
### SPECIFICATIONS

Sensor Type	2-wire DC	2-wire AC
Supply Voltage	20-250 VDC	40-250 VAC
Load Current	5-150 mA (10-30 VDC)	5-100 mA (40-250 VAC)
Min.-Max.	5-20 mA (30-250 VDC)	
Leakage Current, max.	1.1 mA @ 24 VDC	2 mA @ 100-200 VAC
Voltage Drop, max.	6 V	10 V
Repeatability	+ 1%	+ 3%
Hysteresis	3-15%	3-15%
Sealing	IP 67	
Temperature Range	-25 to +70°C (-13 to +160°F)	
Sensing Face Material	Polyamide	
Housing Material	Nickel-plated brass	
Cable Type	Vinyl, 20 gage	

### MATING QUICK-CONNECT CABLES

Style	Length	Output	Catalog Listing
Straight	2 m	N.O.	B03000A11M020
Straight	5 m	N.O.	B03000A11M050
Right Angle	2 m	N.O.	B03001A11M020
Right Angle	5 m	N.O.	B03001A11M050

### SENSOR PINOUT



#### DC Wiring

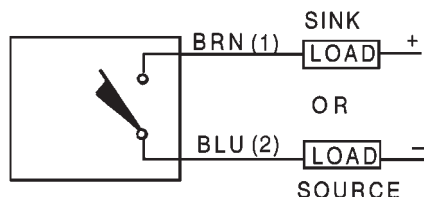
Do not place leadwires of DC sensors in conduit with AC control wiring. Place in separate conduit or with wiring to other low voltage DC devices.

#### AC Wiring

### NOTICE

A load must be used when power is applied to AC sensors. Wiring without a load will cause permanent damage.

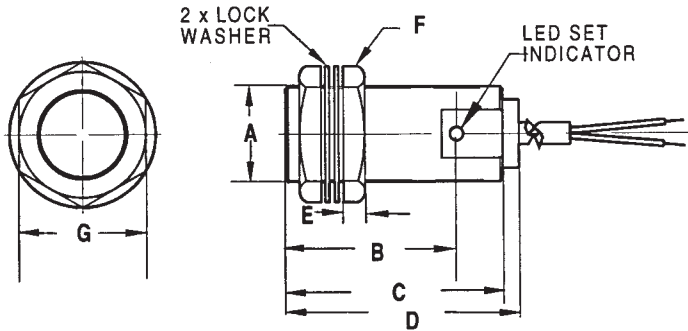
### WIRING DIAGRAM



12 to 30 mm Diameter Cylindrical Universal Voltage Sensors

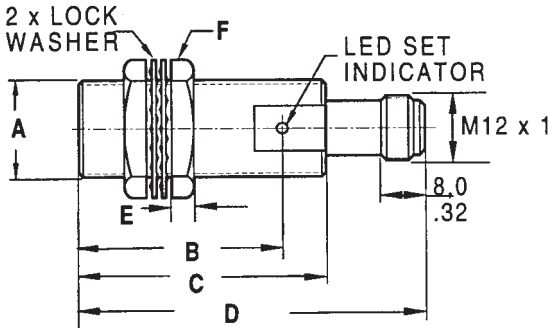
2-Wire AC/DC Type

MOUNTING DIMENSIONS (For reference only)  
Preloaded



Catalog Listing	A	B	C	D	E	F	G
FL7M-3T7HD-M	M12	40,5 (1.59)	47,5 (1.87)	55,0 (2.16)	4,0 (0.16)	SW17	17,0 (0.57)
FL7M-7T7HD-M	M18	37,0 (1.45)	40,0 (1.57)	48,0 (1.89)	4,0 (0.16)	SW24	24,0 (0.94)
FL7M-10T7D-M	M30	39,0 (1.54)	42,0 (1.65)	50,0 (1.97)	5,0 (.20)	SW36	35,0 (1.52)

With Micro Connector



Catalog Listing	A	B	C	D	E	F	G
FL7M-3T7HD-CMG	M12	40,5 (1.59)	50,5 (1.99)	69,0 (2.72)	4,0 (0.16)	SW17	17,0 (0.57)
FL7M-7T7HD-CMG	M18	37,0 (1.46)	45,0 (1.77)	63,0 (2.48)	4,0 (0.16)	SW24	24,0 (0.94)
FL7M-10T7D-CMG	M30	39,0 (1.54)	47,0 (1.85)	65,0 (2.56)	5,0 (.20)	SW36	35,0 (1.52)

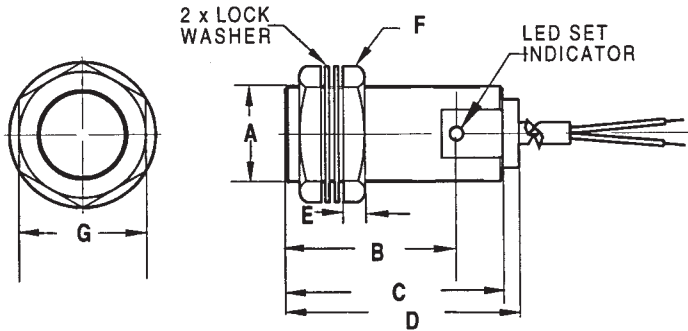
Proximity

12 to 30 mm Diameter Cylindrical Universal Voltage Sensors

2-Wire AC/DC Type

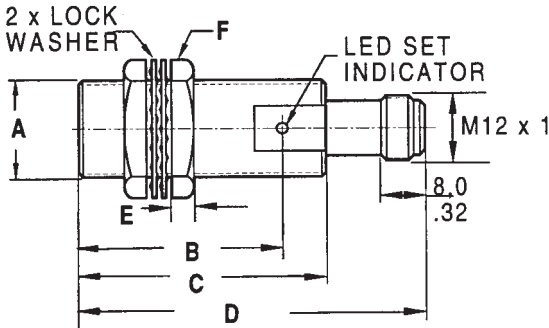
MOUNTING DIMENSIONS (For reference only)

Preloaded



Catalog Listing	A	B	C	D	E	F	G
FL7M-3T7HD-M	M12	40,5 (1.59)	47,5 (1.87)	55,0 (2.16)	4,0 (0.16)	SW17	17,0 (0.57)
FL7M-7T7HD-M	M18	37,0 (1.45)	40,0 (1.57)	48,0 (1.89)	4,0 (0.16)	SW24	24,0 (0.94)
FL7M-10T7D-M	M30	39,0 (1.54)	42,0 (1.65)	50,0 (1.97)	5,0 (.20)	SW36	35,0 (1.52)

With Micro Connector



Catalog Listing	A	B	C	D	E	F	G
FL7M-3T7HD-CMG	M12	40,5 (1.59)	50,5 (1.99)	69,0 (2.72)	4,0 (0.16)	SW17	17,0 (0.57)
FL7M-7T7HD-CMG	M18	37,0 (1.46)	45,0 (1.77)	63,0 (2.48)	4,0 (0.16)	SW24	24,0 (0.94)
FL7M-10T7D-CMG	M30	39,0 (1.54)	47,0 (1.85)	65,0 (2.56)	5,0 (.20)	SW36	35,0 (1.52)

Proximity