

# Proximity Sensors

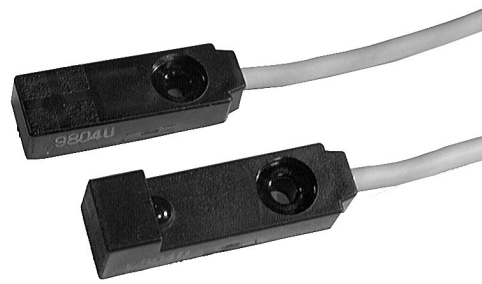
## 3-Wire DC Compact Sensors

APM Series



### FEATURES

- Mounts in small spaces
- Locking boss for easy mounting with a single screw
- Thin 5,9 mm side sensing unit
- Only 8 mm (0.31 in.) wide
- LED indicator visible from three directions
- IP 67 sealing



### ORDER GUIDE

Sensing Distance	Package Style	Locking Boss	Output Type	Catalog Listing NPN Output	Catalog Listing PNP Output
2,5 (0.1)	Top	No	N.O.	APM-A3A1-H	APM-A3D1-H
			N.C.	APM-A3B1-H	APM-A3E1-H
		Yes	N.O.	APM-B3A1-H	APM-B3D1-H
			N.C.	APM-B3B1-H	APM-B3E1-H
	Side	No	N.O.	APM-C3A1-H	APM-C3D1-H
			N.C.	APM-C3B1-H	APM-C3E1-H
		Yes	N.O.	APM-D3A1-H	APM-D3D1-H
			N.C.	APM-D3B1-H	APM-D3E1-H

### SPECIFICATIONS

Sensor Type	APM-□3A1-H	APM-□3B1-H	APM-□3D1-H	APM-□3E1-H
Operation	NPN, N.O.	NPN, N.C.	PNP, N.O.	PNP, N.C.
Sensing Distance	2.5 mm (0.10 in.) ± 15%			
Actuation Method	ECKO, unshielded sensors			
Supply Voltage	12 to 24 VDC			
Standard Target	15 mm x 15 mm x 1 mm (0.59 x 0.59 x 0.04 in.) mild steel			
Differential Travel	15% of sensing distance, maximum			
Current Consumption	10 mA max.			
Switching Current	30 mA max. (Resistive load)			
Voltage Drop	1 V max. (@ 30 mA)			
Switching Frequency	120 Hz			
Operation Indicator	Red LED (lights when target approaches)			
Operating Temperature	-10 to +55°C (14 to +131°F)			
Storage Temperature	-25 to +70°C (-13 to +158°F)			
Humidity Range	35 to 85% RH (no condensation)			
Dielectric Strength	1000 VAC, 50/60 Hz for 1 minute between case and electrically live metals			
Vibration Resistance	10 to 55 Hz, 1.5 mm peak-to-peak amplitude, 2 hours in X, Y and Z directions			
Shock Resistance	500 m/s <sup>2</sup> 3 tunes in X, Y and Z directions			
Protection	IP 67 (IEC 529)			
Weight	Approximately 10 grams			
Circuit Protection	Surge, reverse connection			
Wiring	3 conductor oil-resistant cable			
Case Material	Polyallylate resin			

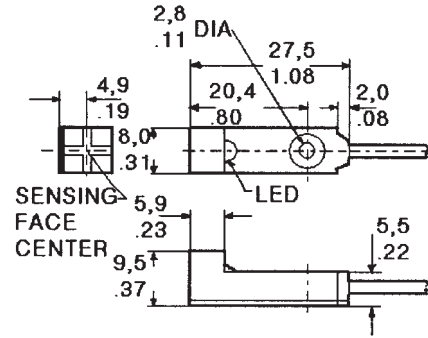
Proximity

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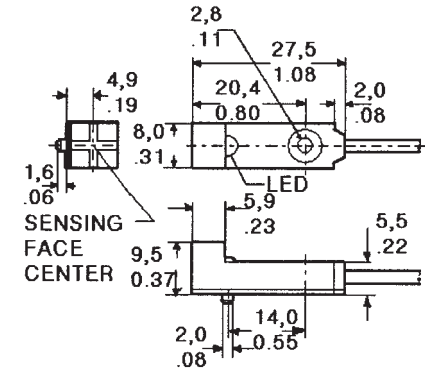
## 3-Wire DC Compact Sensors

MOUNTING DIMENSIONS (For reference only)

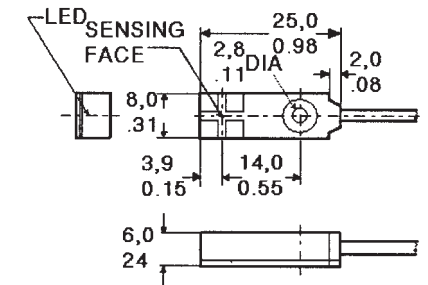
APM-A3□1-H



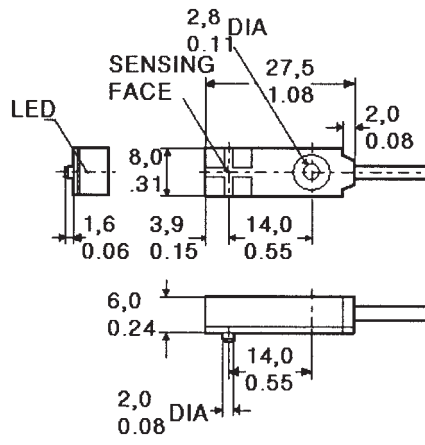
APM-B3□1-H



APM-C3□1-H

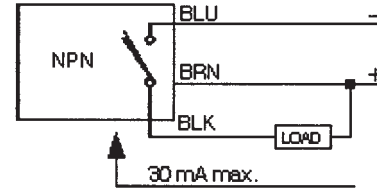


APM-D3□1-H

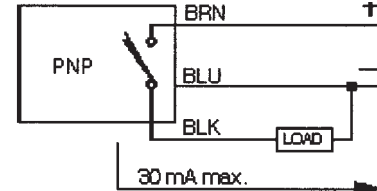


### WIRING DIAGRAMS

#### NPN (Sinking)



#### PNP (Sourcing)

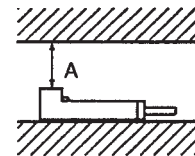
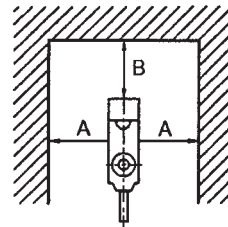


### SENSITIVITY TO SURROUNDING METALS

Metals surrounding the sensor may influence the operating characteristics. Maintain the following distance between sensor and surrounding metals.

	mm	in.
A	3	0.12
B	8	0.315

### TOP SENSING



### SIDE SENSING

