

Proximity Sensors

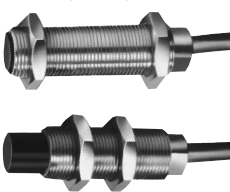
FY Series

14 mm Diameter Preloaded Cylindrical Metal Specialty Sensors 3-Wire DC Types

FEATURES

- **Factory Mutual approved** for non-incendive Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Group G hazardous locations (NPN outputs only)
- **TTL compatible**, 0.5 VDC saturation voltage (NPN outputs only)
- Sealed to NEMA 3, 3R, 3S, 4, 12, 13
- PNP outputs (Current Sourcing) also available
- Threaded aluminum bushing
- -30 to +70° C (-22 to +160° F) temperature range
- False pulse suppression, line transients and noise protection

ORDER GUIDE

Sensor Package Style	Sensing Range mm (in.)	Sensor Type	LED	Sw. Freq.	Standard Target* mm (in.)	Output Type	Input Voltage	Catalog Listing
	3 (.12) Shielded	3-wire DC	NO	300 Hz	14 (.55)	NPN, N.O.**	8.5-20	FYAA3A1-2
						PNP, N.O.	19-30	FYAA3J1-2
	8 (.31) Unshielded	3-wire DC	NO	200 Hz	14 (.55)	NPN, N.O.**	8.5-20	FYAB8A1-2
						PNP, N.O.**	19-30	FYAB8A2-2

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

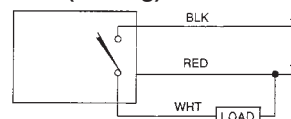
** TTL compatible, Factory Mutual approved for non-incentive Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Group G hazardous locations.

SPECIFICATIONS

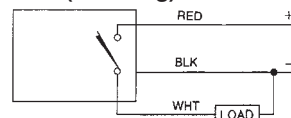
Sensor Type	Sinking (NPN)	Sourcing (PNP)
Load Current, min./max.	0-170 mA	0-170 mA
Leakage Current, max.	50 µA	50 µA
Voltage Drop, max.	0.5 V sinking	2.6 V sourcing
Current Consumption, max.	25 mA	
Inrush Current	—	
Repeatability, Shielded	± 1%	
Repeatability, Unshielded	± 3%	
Hysteresis	2-15%	
Sensing Face Material	Rynite	
Housing Material	Aluminum	
Cable Type	PVC jacket, 22 gage	

WIRING DIAGRAMS

NPN (Sinking) N.O.



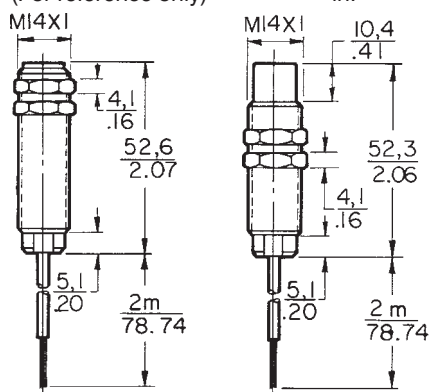
PNP (Sourcing) N.O.



Do not place connecting cables of DC sensors in conduit with AC control wiring. Place in separate conduit or with wiring to other low voltage low current solid state devices.

MOUNTING DIMENSIONS

(For reference only)



Proximity