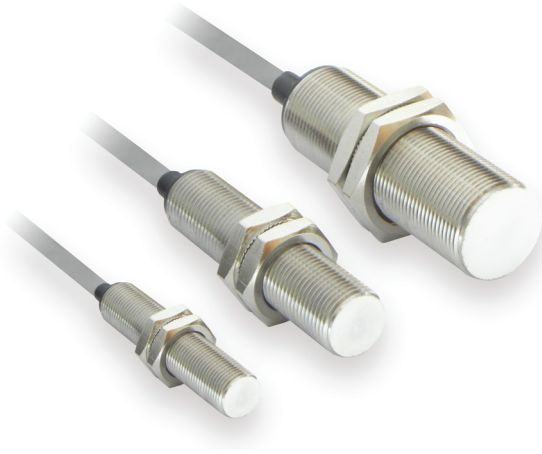


Weld Immune Proximity Sensor

Spatter Resistance

PQ-W



SALIENT FEATURES

- ◆ SS Housing
- ◆ Spatter Resistant
- ◆ LED - Status Indication
- ◆ M8, M12 & M18 Flush Types
- ◆ Prewired & Jn. Connector Types
- ◆ Improved IC for Noise Resistance

Model Number Legend



PQ-W-□□-□□-□
1 2 3 4 5 6 7

1. Series

PQ

2. Type

W: Weld Immune

3. Housing

M8: M8, Threaded

M12: M12, Threaded

M18: M18, Threaded

4. Shield

F: Flush/ Shielded

5. Sensing Distance

1: 1 mm

2: 2 mm

5: 5 mm

6. Output

NO: NPN - NO

PO: PNP - NO

AO: 2 wire AC - NO

AC: 2 wire AC - NC

7. Connection

2M: 2m Cable

M12J3: M12 Junction Connector with 0.3m extension

#. Accessories included

Check Nut: 1 Pair

Example:

PQ-W-M18F-5AO-2M

PQ Series - Weld Immune Sensor - M18, Flush - 5mm Sensing Distance, AC 2 Wire NO - 2 meter Cable

NOTE: Contact us for models not shown in catalogue.
 Connector cables are sold separately; look in CC series catalogue for the same (www.inno.sg/cc).

◆ Weld Arc Immune + Spatter Resistance

The hot arc from welding machines damage normal proximity sensors, causing false output or sensor failure as the hot arc adheres to the proximity's front causing it to melt/ malfunction. The PTFE teflon top in the PQ-W series is immune to the arc material build up and can withstand high temperatures making it suitable for use in welding machines.

Ratings and Specifications

Size		M8	M12	M18
Model	NPN - NO	PQ-W-M8F-1NO-__	PQ-W-M12F-2NO-__	PQ-W-M18F-5NO-__
	PNP - NO	PQ-W-M8F-1PO-__	PQ-W-M12F-2PO-__	PQ-W-M18F-5PO-__
	AC 2 Wire - NO	PQ-W-M8F-1AO-__	PQ-W-M12F-2AO-__	PQ-W-M18F-5AO-__
	AC 2 Wire - NC	PQ-W-M8F-1AC-__	PQ-W-M12F-2AC-__	PQ-W-M18F-5AC-__
Sensing Distance		1mm	2mm	5mm
Standard Sensing Target		Iron, Ø12x2mm	Iron, Ø16x2mm	Iron, Ø22x2mm
Hysteresis		± 10%		
Response Frequency/ Time		2000 Hz/ 0.1ms (AC: 25 Hz)		1000 Hz/ 0.2ms (AC: 25 Hz)
Supply Voltage		10-30VDC (ripple included)		
Current Consumption		< 10mA		
Connection		2 meter Pre-wired and M12 Jn. Connector types		
Output	Type	NPN/ PNP - NO or AC 2 Wire - NO/ NC depending on the model		
	Switching Capacity	200mA; overload trip: 220mA (AC: 300mA)		
	Leakage Current	<0.01mA (AC: <2.5mA)		
	Voltage Drop	< 1.5VDC (AC: 9VAC)		
Protection Circuits		DC Type Only: Reverse power supply polarity; short circuit and overload protection		
Dielectric Strength		1000 VAC, 50/ 60 Hz for 1 minute between current carrying parts and case		
Voltage Influence		± 5% max. of sensing distance (ref. sensing distance taken at 24VDC)		
Temperature Influence		± 10% max. of sensing distance (ref. sensing distance taken at 25°C)		
Vibration Resistance		10 - 55Hz, 1mm for 2 hours in X, Y, Z directions (destruction)		
Shock Resistance		50 G (10 times) in X, Y, Z direction for 3 times (destruction)		
Ambient Temperature		Operation: -25° ~ 70° C; Storage: -30° ~ 80° C (non-freezing; non-condensing)		
Ambient Humidity		Operation: 40 ~ 85% RH; Storage: 35 ~ 95% RH (non- condensing)		
Protection Class		IP - 67		
Weight	Prewired	approx. 40g	approx. 60g	approx. 130g
	Junction Connector	approx. 55g	approx. 75g	approx. 145g
Cable		2M, 2.9Ø 3*0.15	2M, 4Ø 3*0.25	2M, 5Ø 3*0.34
Material		Head: PTFE; Tube: Stainless Steel; Nuts: Chrome plated MS		
Tightening Torque		10 N.m (max.)	15 N.m (max.)	40 N.m (max.)

Sensor Dimension Drawing

PQ-W

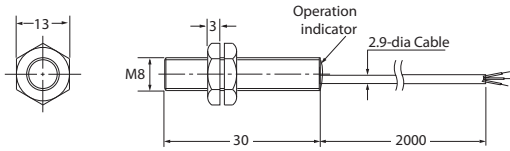
Proximity Sensors

Photoelectric Sensors

Measurement Sensors

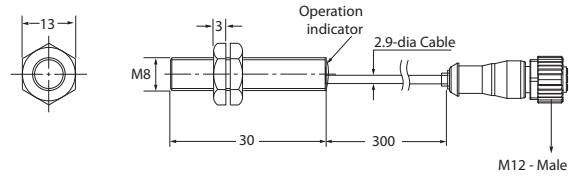
Vision & Safety Sensors

PQ-W-M8F-1_-2M

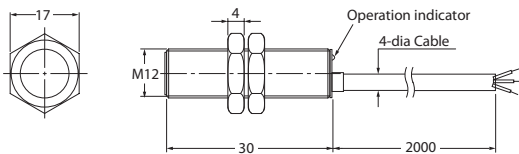


PQ-W-M8F-1_-M12J3

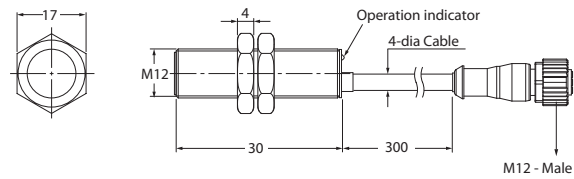
All dimensions are in mm



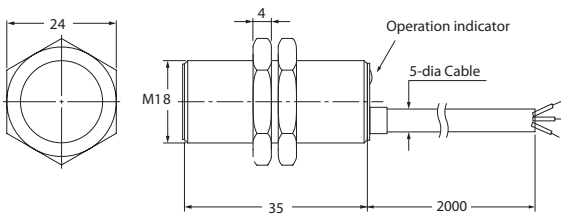
PQ-W-M12F-2_-2M



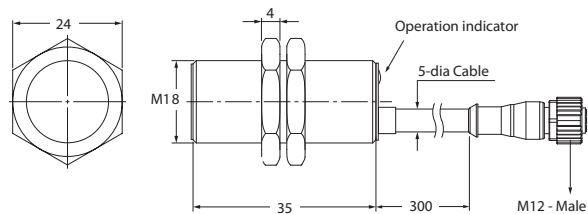
PQ-W-M12F-2_-M12J3



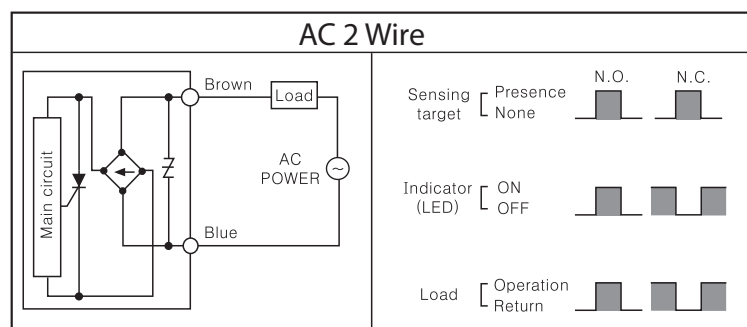
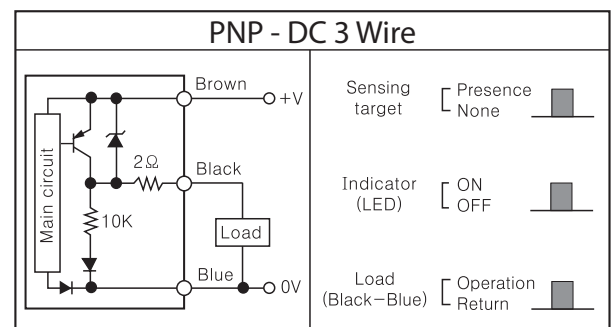
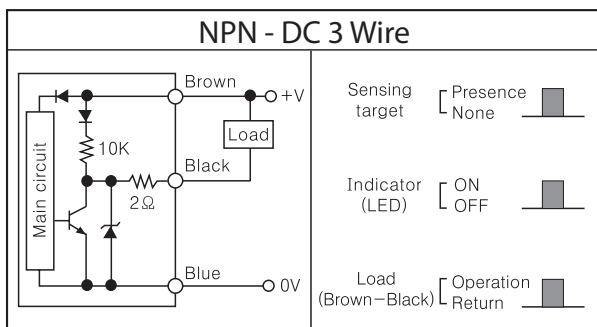
PQ-W-M18F-5_-2M



PQ-W-M18F-5_-M12J3



Control Output Diagram



Control

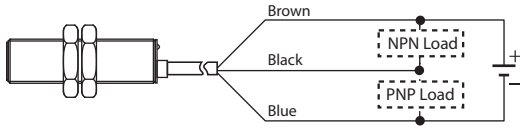
Weighing

Automation

Components

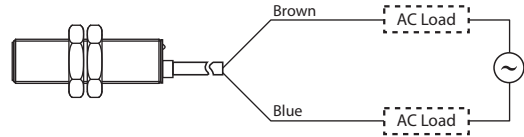
Connection

◆ NPN & PNP - DC 3 Wire Type

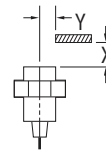
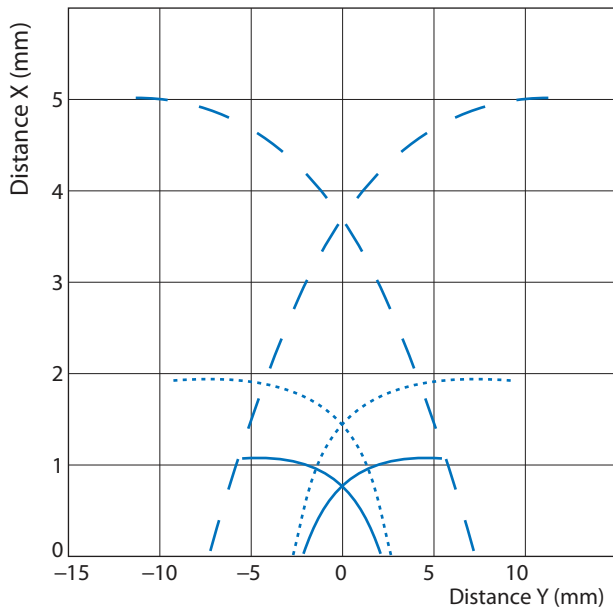


Brown : DC 12~24V
 Blue : GND
 Black : Control Output

◆ NO & NC - AC 2 Wire Type



Operational Range



Note: Operational Range testing carried out at room temperature using standard Test Object.

PQ-W-M8F-1_ _ →

PQ-W-M12F-2_ _ →

PQ-W-M18F-5_ _ →

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Cat. No. PQ-W-813