



PQ2-D-417

PQ2-D

2- WIRE DOUBLE SENSING PROXIMITY SENSOR



INSTRUCTION SHEET

Thank you for selecting INNO for your requirement.

This sheet describes the procedure and precautions required for installing and operating the product.

Kindly read this sheet before operating or installing the product. Store the sheet for future reference.

CAUTION FOR SAFETY

① Please keep this sheet for review before use of unit.

① Please observe the following:

⚠ WARNING
Serious injury may occur if instructions are not followed

⚠ CAUTION
Product failure or injury can occur if instructions are not followed

⚠ WARNING

- This is not a safety product and is not to be used with machinery that requires use of safety control.
- Do not disassemble or modify this unit. It may lead to electric shock/ fire.

Do not connect sensor to AC power supply.
RISK OF EXPLOSION!



⚠ CAUTION

- This unit shall not be used outdoors.
- Do not use this unit in places where there is flammable or explosive gas.
- Please observe the rated specifications in Instruction Sheet.
- Do not use this unit beyond rated power and do not supply AC power at DC power type.
- Please check the polarity of power and wrong wiring.
- Do not use this unit in places where there is vibration or impact.
- Do not use water or oil based detergent for cleaning the unit.
- Do not use excessive force to tighten the unit to the mounting plate and do not hammer the unit.
- Please process it as industrial waste and dispose responsibly.

For more information visit www.inno.sg

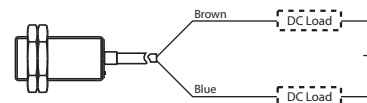
SPECIFICATIONS

*For details on Customized/ Special Models contact Seller

Size			M8	M12	M18	M30
*Model	Flush	DC-NO	PQ2-D_-M8F-2DO-_-	PQ2-D_-M12F-4DO-_-	PQ2-D_-M18F-8DO-_-	PQ2-D_-M30F-16DO-_-
		DC-NC	PQ2-D_-M8F-2DC-_-	PQ2-D_-M12F-4DC-_-	PQ2-D_-M18F-8DC-_-	PQ2-D_-M30F-16DC-_-
	Non-Flush	DC-NO	PQ2-D_-M8N-4DO-_-	PQ2-D_-M12N-8DO-_-	PQ2-D_-M18N-16DO-_-	PQ2-D_-M30N-25DO-_-
		DC-NC	PQ2-D_-M8N-4DC-_-	PQ2-D_-M12N-8DC-_-	PQ2-D_-M18N-16DC-_-	PQ2-D_-M30N-25DC-_-
Sensing Distance	Flush		2mm	4mm	8mm	16mm
	Non-Flush		4mm	8mm	16mm	25mm
Standard Sensing Target			Iron, Ø10x1mm	Iron, Ø15x1mm	Iron, Ø22x1mm	Iron, Ø35x1mm
Hysteresis			± 10%			
Response Frequency/ Time	Flush		2000 Hz/ 0.1ms	1000 Hz/ 0.2ms	500 Hz/ 0.5ms	150 Hz/ 1ms
	Non-Flush		1000 Hz/ 0.1ms	500 Hz/ 0.5ms	150 Hz/ 1ms	100 Hz/ 1ms
Supply Voltage			10-30VDC (ripple included)			
Current Consumption			< 10mA			
Connection			PQ2-D_-_-_-_- 2M - 2 meter pre-wired; PQ2-D_-_-_-_- M12C - M12 Connector			
Output	Type	DC - NO/ NC depending on the model				
	Switching Capacity	200mA; Overload trip: 220mA				
	Leakage Current	< 0.01mA				
	Voltage Drop	< 1.5VDC				
Indication			Operation: Yellow LED			
Protection Circuits			Reverse power supply polarity; reversed output polarity; Short circuit; Overload protection			
Dielectric Strength			1000 VAC, 50/60 Hz for 1 minute between current carry 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	Standard Length	Prewired	-	-	approx. 135g	approx. 182g
		Connector	-	-	approx. 52g	approx. 120g
	Long Body	Prewired	approx. 50g	approx. 65g	approx. 150g	approx. 215g
		Connector	approx. 25g	approx. 35g	approx. 95g	approx. 185g
Material			Head: POM; Tube: Nickel plated Brass (SS for M8); Nuts: Chrome plated Copper Alloy; Washer: Zinc-plated Iron			
Tightening Torque			10 Nm (max.)	15 Nm (max.)	40 Nm (max.)	

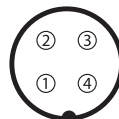
CONNECTIONS

◆ NO & NC - DC 2 Wire Type



◆ Connector Type

- 1: Connection
- 2: -
- 3: Connection
- 4: -



MOUNTING AND ADJUSTMENTS

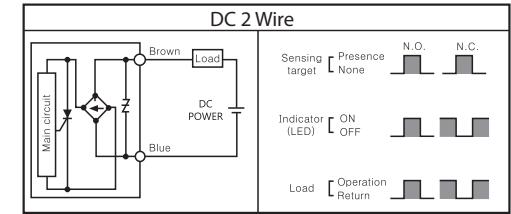
• Tightening Torque

Do not tighten the nut with excessive force. Self washered nut, use of a washer is appreciated but not essential.



Size	Torque
M8	10 Nm
M12	15 Nm
M18	40 Nm
M30	40 Nm

CONTROL OUTPUT DIAGRAM



⚠ CAUTION

Do not connect in Parallel or without load to Power Supply. Connect only in SERIES TO LOAD.

MOUNTING AND ADJUSTMENTS (Contd.)

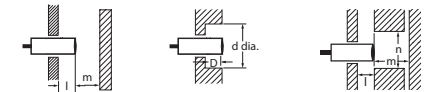
• Mutual Interference

When installing sensors face-to-face or side-by-side, ensure that a minimum distance as given in the table below is maintained.

Size	Material	A	B
M8	Flush	20	15
	Non-flush	80	60
M12	Flush	30	20
	Non-flush	120	100
M18	Flush	60	35
	Non-flush	200	120
M30	Flush	110	70
	Non-flush	300	300

• Mounting metal influence

When the proximity sensor is embedded in metal, make sure that the clearances given below are maintained.



Size	Material	l	d	D	m	n
M8	Flush	0	-	0	4.5	12
	Non-flush	12	24	12	8	24
M12	Flush	0	-	0	12	18
	Non-flush	12	40	15	20	40
M18	Flush	0	27	1.5	24	27
	Non-flush	22	70	22	48	70
M30	Flush	0	45	4	45	45
	Non-flush	40	120	40	90	120

Represented by:

Intech Systems Chennai Pvt. Ltd.
S-2, Guindy Industrial Estate
Chennai - 32. Ph: 044 4353 8888
Email: info@intechennai.com



www.inno.sg

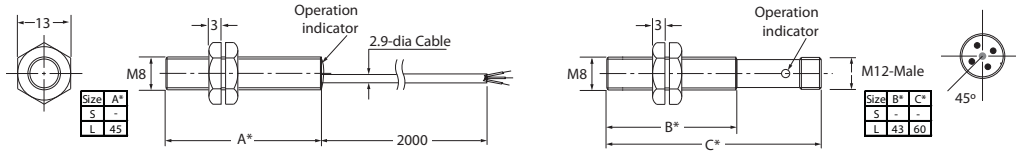
© Rights Reserved

■ DIMENSIONS

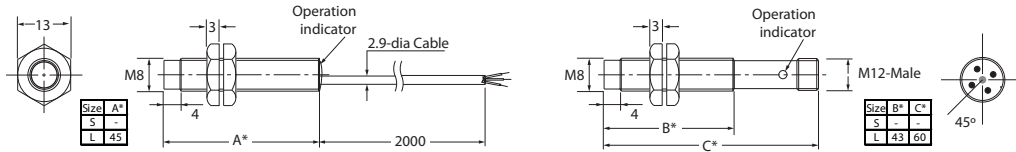
S - Standard Length; L - Long Body

All units are in mm

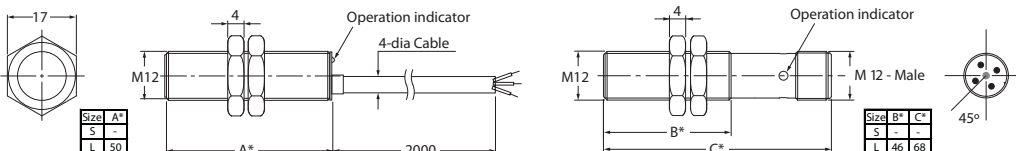
• PQ2-D_-M8F-2_-_-



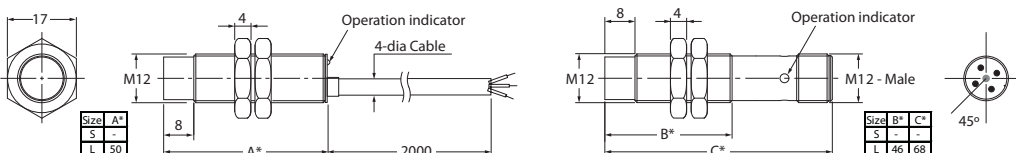
• PQ2-D_-M8N-4_-_-



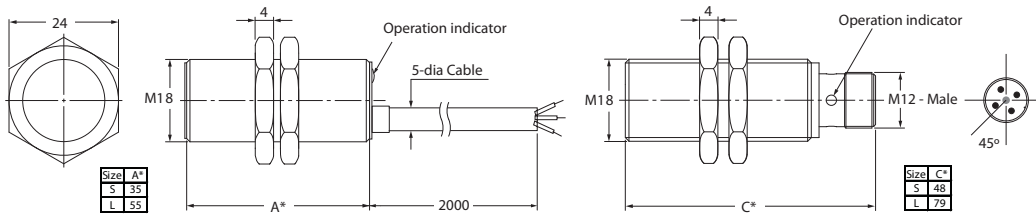
• PQ2-D_-M12F-4_-_-



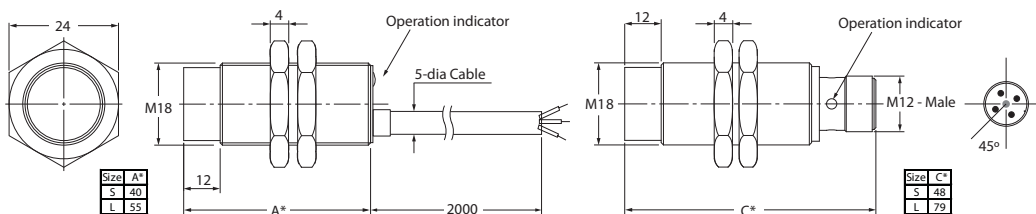
• PQ2-D_-M12N-8_-_-



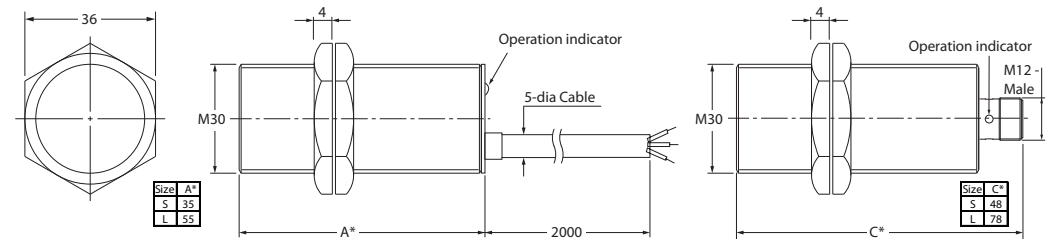
• PQ2-D_-M18F-8_-_-



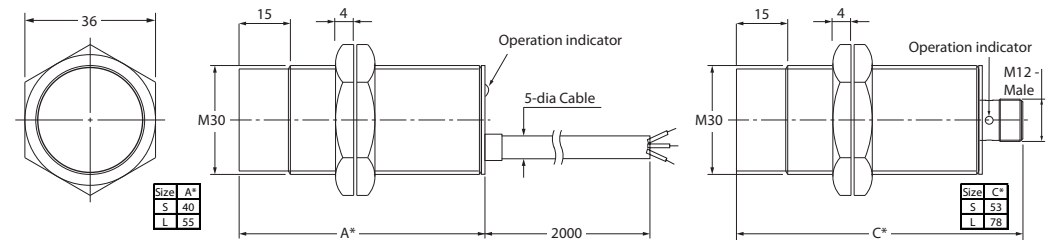
• PQ2-D_-M18N-16_-_-



• PQ2-D_-M30F-16_-_-

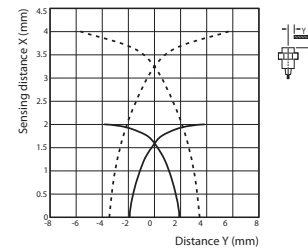


• PQ2-D_-M30N-25_-_-

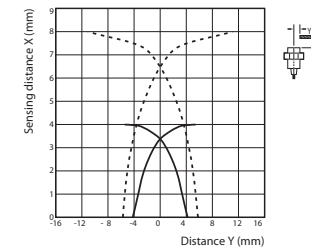


■ OPERATIONAL RANGE

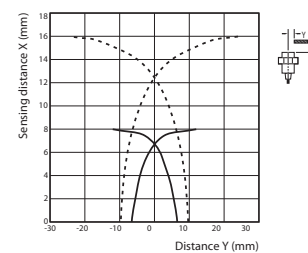
• PQ2-D_-M8_-_-



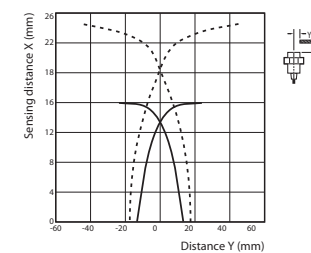
• PQ2-D_-M12_-_-



• PQ2-D_-M18_-_-

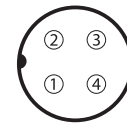


• PQ2-D_-M30_-_-



Flush ———→
Non-Flush - - - - ->

◆ M12 Connector



- 1: DC 10~30V
- 2: Control Output NC
- 3: 0V
- 4: Control Output NO