

M12 - Long Housing - Inductive Sensor

Features:

- Inductive sensor, style: cylinder shape, diameter: 12mm.
- DC 2-wire (10-30V DC), DC 3-wire (10-30V DC), DC 4-wire (10-30V DC), AC 2-wire (90-250V AC) *DC 2-wire (5V DC) also available
- Connection mode: 3/4 wire or 3/4 pin connector
- Mounting distance: shielded (2mm), unshielded (4mm)
- With LED operation indicate lamp, easily identifiable
- Brass chrome plated, proof of oil, water acid, alkaline
- Standard sensing object: ferrous metals
- Protection rate: IP67, water resistant
- Over-current protection
- Widely applied in measuring, Counting, Rpm measuring in mechanism, chemical, paper manufacture light industry, etc.

ORDERING CODE INFORMATION

MODEL		OUTPUT MODE		THREAD DIMENSION		STYLE		CONNECTOR		CONTACT		DETECT DISTANCE	
I	INDUCTIVE	A	AC	5	M5 Cylinder	Blank	STANDARD	0	WIRE	0	NO	1	XXmm Shielded
C	CAPACITIVE	D	DC	8	M8 Cylinder	L	LONG	1	STRAIGHT	1	NC	2	XXmm Unshielded
		N	NPN	12	M12 Cylinder	S	SHORT	2	90° ANGLE	2	NO+NC		
		P	PNP	18	M18 Cylinder								
				30	M30 Cylinder								

ORDERING CODES

Model and Type	Output Type	Mounting Distance	Current Output	Power Supply	Connector Model
PIN-T12L-001	NPN NO	2mm SHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIN-T12L-011	NPN NC	2mm SHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIN-T12L-002	NPN NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIN-T12L-012	NPN NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIN-T12L-021	NPN NO+NC	2mm SHIELDED	≤ 200mA	DC 10-30V	4 WIRE
PIN-T12L-022	NPN NO+NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	4 WIRE
PIN-T12L-101	NPN NO	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-111	NPN NC	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-102	NPN NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-112	NPN NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-121	NPN NO+NC	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-122	NPN NO+NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIN-T12L-201	NPN NO	2mm SHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIN-T12L-211	NPN NC	2mm SHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIN-T12L-202	NPN NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIN-T12L-212	NPN NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIN-T12L-221	NPN NO+NC	2mm SHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIN-T12L-222	NPN NO+NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIP-T12L-001	PNP NO	2mm SHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIP-T12L-011	PNP NC	2mm SHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIP-T12L-002	PNP NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIP-T12L-012	PNP NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	3 WIRE
PIP-T12L-021	PNP NO+NC	2mm SHIELDED	≤ 200mA	DC 10-30V	4 WIRE
PIP-T12L-022	PNP NO+NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	4 WIRE
PIP-T12L-101	PNP NO	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIP-T12L-111	PNP NC	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIP-T12L-102	PNP NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
PIP-T12L-112	PNP NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
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PIP-T12L-202	PNP NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIP-T12L-212	PNP NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIP-T12L-221	PNP NO+NC	2mm SHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR
PIP-T12L-222	PNP NO+NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	90 DEGREE PLUG IN CONNECTOR

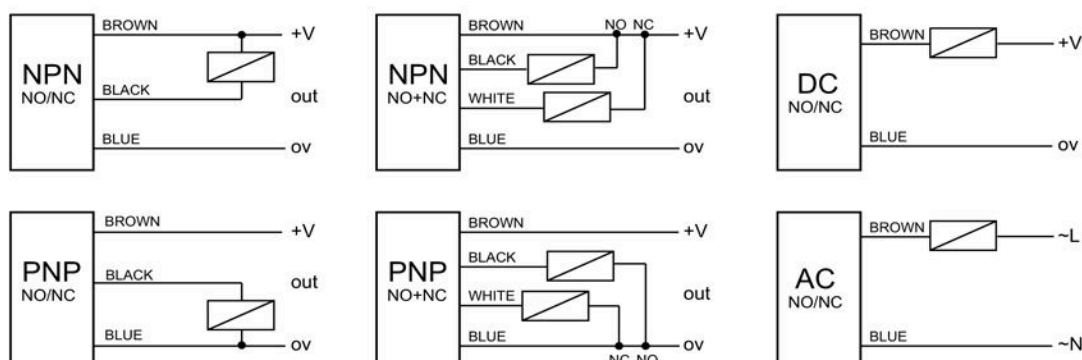
ORDERING CODES

Model and Type	Output Type	Mounting Distance	Current Output	Power Supply	Connector Model
PID-T12L-001	DC 2 WIRE NO	2mm SHIELDED	≤ 200mA	DC 10-30V	2 WIRE
PID-T12L-011	DC 2 WIRE NC	2mm SHIELDED	≤ 200mA	DC 10-30V	2 WIRE
PID-T12L-002	DC 2 WIRE NO	4mm UNSHIELDED	≤ 200mA	DC 10-30V	2 WIRE
PID-T12L-012	DC 2 WIRE NC	4mm UNSHIELDED	≤ 200mA	DC 10-30V	2 WIRE
PIA-T12L-001	AC 2 WIRE NO	2mm SHIELDED	≤ 300mA	AC 90-250V	2 WIRE
PIA-T12L-011	AC 2 WIRE NC	2mm SHIELDED	≤ 300mA	AC 90-250V	2 WIRE
PIA-T12L-002	AC 2 WIRE NO	4mm UNSHIELDED	≤ 300mA	AC 90-250V	2 WIRE
PIA-T12L-012	AC 2 WIRE NC	4mm UNSHIELDED	≤ 300mA	AC 90-250V	2 WIRE
PID-T12L-101	DC 2 WIRE NO	2mm SHIELDED	≤ 200mA	DC 10-30V	STRAIGHT PLUG IN CONNECTOR
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PIA-T12L-101	AC 2 WIRE NO	2mm SHIELDED	≤ 300mA	AC 90-250V	STRAIGHT PLUG IN CONNECTOR
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PIA-T12L-211	AC 2 WIRE NC	2mm SHIELDED	≤ 300mA	AC 90-250V	90 DEGREE PLUG IN CONNECTOR
PIA-T12L-202	AC 2 WIRE NO	4mm UNSHIELDED	≤ 300mA	AC 90-250V	90 DEGREE PLUG IN CONNECTOR
PIA-T12L-212	AC 2 WIRE NC	4mm UNSHIELDED	≤ 300mA	AC 90-250V	90 DEGREE PLUG IN CONNECTOR

TECHNICAL SPECIFICATIONS

Property Project	Specific Parameter
Mounting Distance	2mm shielded / 4mm unshielded
Sensing Distance	0...1.8mm shielded / 0...3.6mm unshielded
Power Supply	DC 10-30V / AC 90-250V
Frequency	800Hz/400Hz (DC 3/2 wires) / 25Hz (AC 2 wires)
Current Output (DC/AC)	200mA/300mA
Ambient Temperature	-20°C-70°C
Against Polarity Reversal	YES
Short Circuit Protected	3 wires: YES / 2 wires: NO
IP Rating	IP67

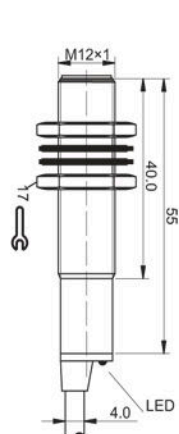
ELECTRICAL CONNECTION



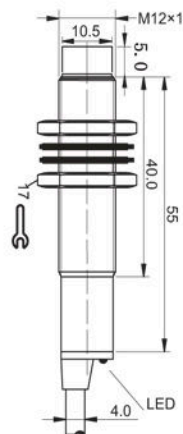
PICTURE OF PRODUCT

Flush (shielded)

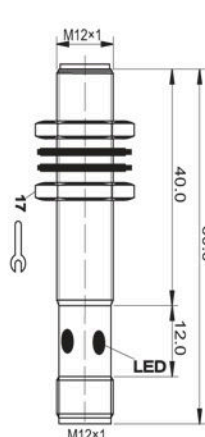
Unit: mm


Non-Flush (unshielded)

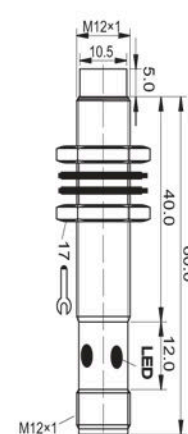
Unit: mm


Flush (shielded)

Unit: mm

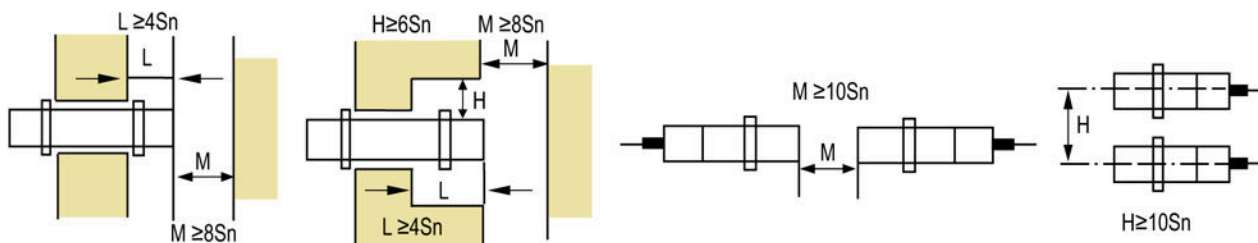

Non-Flush (unshielded)

Unit: mm



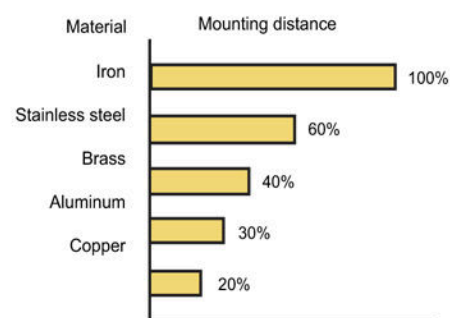
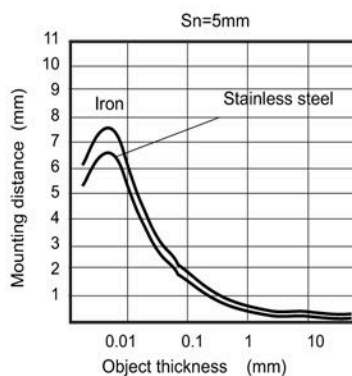
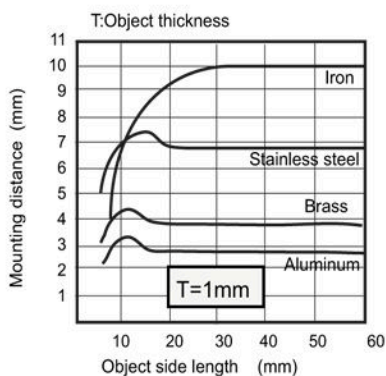
INSTALLATION

If used in an area surrounded by metal, Install the proximity Sensor as follows . (Sn = Sensing distance)

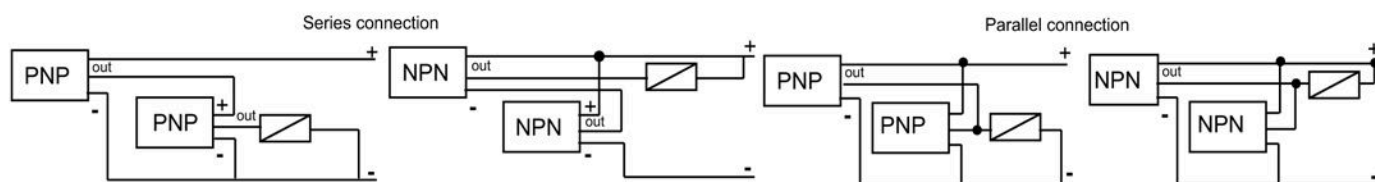


INDUCTIVE PROXIMITY APPLICATION DIRECTION

- Set mounting distance equal to 80% of Sn.
- Set mounting distance roughly equal to 50% of Sn when sensor is used measuring mounting frequency or operating in high speed circumstances.
- Mounting distance will change depending on material (iron, stainless steel, brass, copper and aluminum).



d. Inductive Proximity series connection and parallel connection



REV. NO.

B

REVISION NOTE

Datasheet Update

DATE

Jan 2009

SIGNATURE

LG

As part of the company policy of continued product improvement, specifications may change without notice. Our sales office will be pleased to help you with the latest information on this product range and the details of our full design and manufacturing service. All products are supplied to our standard conditions of sale unless otherwise agreed in writing.

FITRE'S QUALITY SYSTEM IS ISO 9001:2000 CERTIFIED

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