









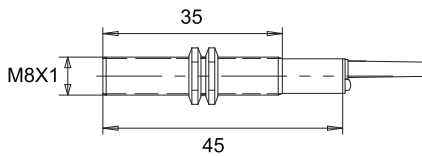


# Inductive Proximity Switches PB

## Dimensions (mm)

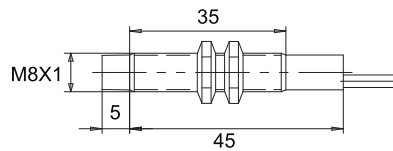
PB0801/\*S\*\*-A PB0802/\*S\*\*-A

Pre-wired, Shielded Style



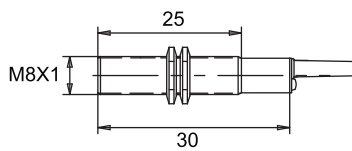
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Pre-wired, Unshielded Style



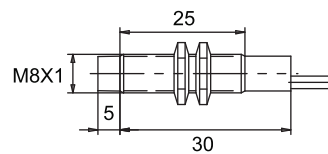
PB0801/\*S\*\*-A30 PB0802/\*S\*\*-A30

Pre-wired, Shielded, Short Style



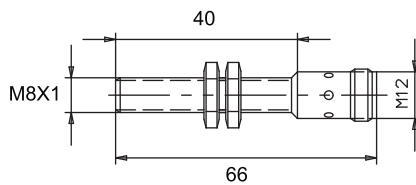
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Pre-wired, Unshielded, Short Style



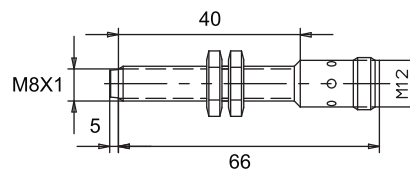
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Quick Connector (M12), Shielded, Short



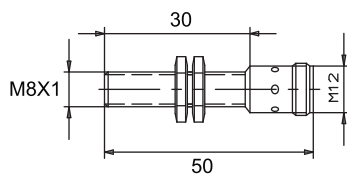
PB0803/\*U\*\*-H PB0804/\*U\*\*-H

Quick Connector (M12), Unshielded, Short



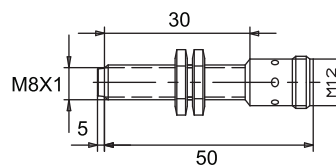
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Quick Connector (M12), Shielded, Short



PB0803/\*U\*\*-A30 PB0804/\*U\*\*-H30

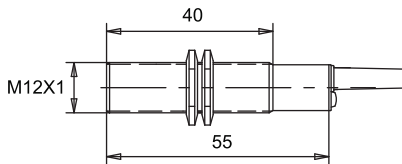
Quick Connector (M12), Unshielded, Short



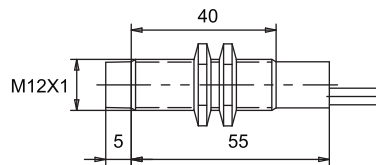
# Inductive Proximity Switches PB

## Dimensions (mm)

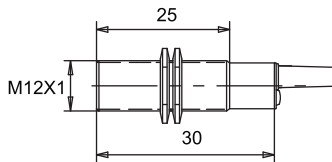
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Pre-wired, Shielded Style



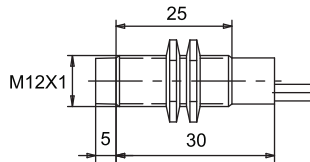
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Pre-wired, Unshielded Style



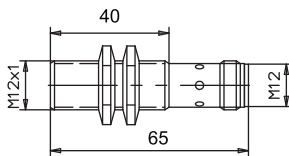
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Pre-wired, Shielded, Short Style



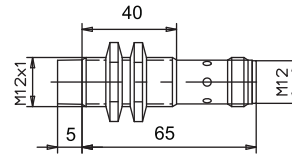
PB1204/\*U\*\*-A30 PB1207/\*U\*\*-A30  
Pre-wired, Unshielded, Short Style



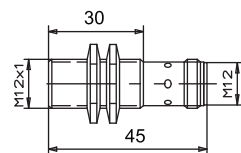
PB1202/\*S\*\*-H PB1205/\*S\*\*-H  
Quick Connector (M12), Shielded, Short



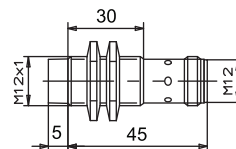
PB1204/\*U\*\*-H PB1207/\*U\*\*-H  
Quick Connector (M12), Unshielded, Short



PB1202/\*S\*\*-H30 PB1205/\*S\*\*-H30  
Quick Connector (M12), Shielded, Short



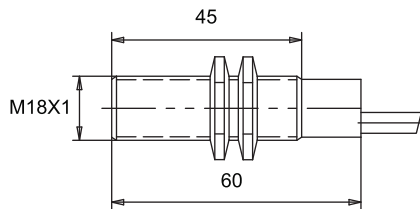
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Quick Connector (M12), Unshielded, Short



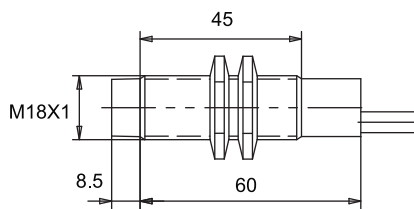
# Inductive Proximity Switches PB

## Dimensions (mm)

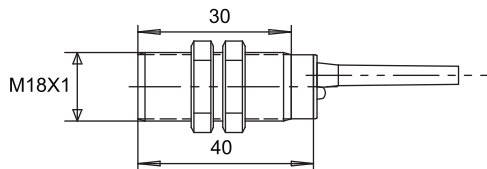
PB1805/\*S\*\*-A PB1808/\*S\*\*-A  
Pre-wired, Shielded Style



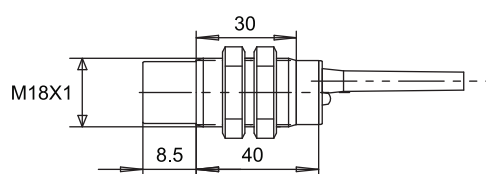
PB1810/\*U\*\*-A PB1812/\*U\*\*-A  
Pre-wired, Unshielded Style



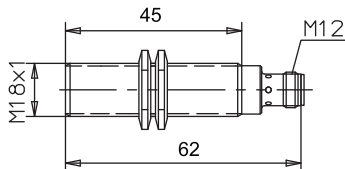
PB1805/\*S\*\*-A30 PB1808/\*S\*\*-A30  
Pre-wired, Shielded, Short Style



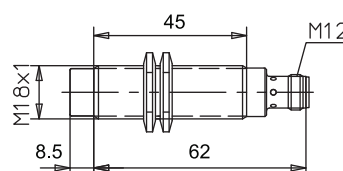
PB1810/\*U\*\*-A30 PB1812/\*U\*\*-A30  
Pre-wired, Unshielded, Short Style



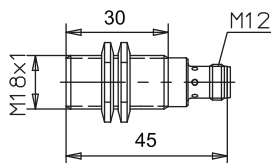
PB1805/\*S\*\*-H PB1808/\*S\*\*-H  
Quick Connector (M12), Shielded, Short



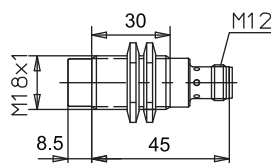
PB1810/\*U\*\*-H PB1812/\*U\*\*-H  
Quick Connector (M12), Unshielded, Short



PB1805/\*S\*\*-H30 PB1808/\*S\*\*-H30  
Quick Connector (M12), Shielded, Short



PB1810/\*U\*\*-H30 PB1812/\*U\*\*-H30  
Quick Connector (M12), Unshielded, Short

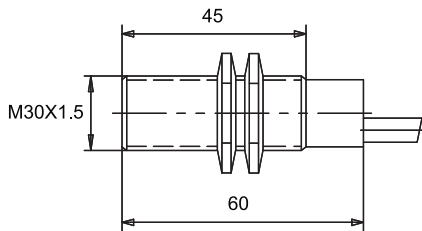




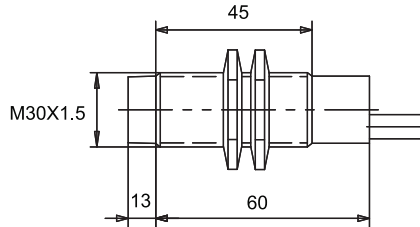
# Inductive Proximity Switches PB

## Dimensions (mm)

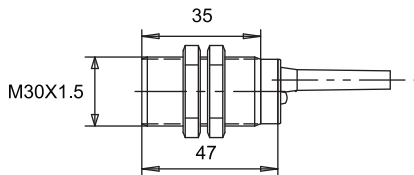
PB3010/\*S\*\*-A PB3015/\*S\*\*-A  
Pre-wired, Shielded Style



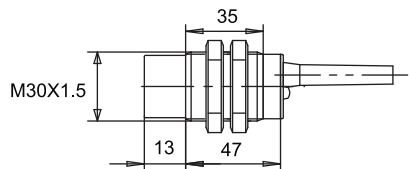
PB3015/\*U\*\*-A PB3022/\*U\*\*-A  
Pre-wired, Unshielded Style



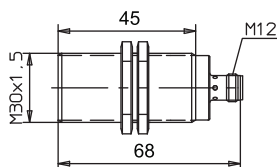
PB3010/\*S\*\*-A30 PB3015/\*S\*\*-A30  
Pre-wired, Shielded, Short Style



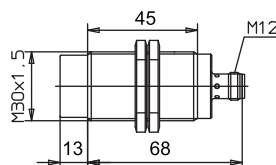
PB3015/\*U\*\*-A30 PB3022/\*U\*\*-A30  
Pre-wired, Unshielded, Short Style



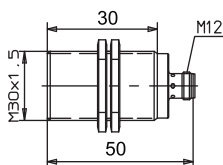
PB3010/\*S\*\*-H PB3015/\*S\*\*-H  
Quick Connector (M12), Shielded, Short



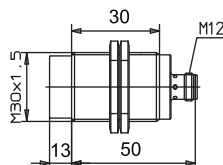
PB3015/\*U\*\*-H PB3022/\*U\*\*-H  
Quick Connector (M12), Unshielded, Short



PB3010/\*S\*\*-H30 PB3015/\*S\*\*-H30  
Quick Connector (M12), Shielded, Short



PB3015/\*U\*\*-H30 PB3022/\*U\*\*-H30  
Quick Connector (M12), Unshielded, Short



# Inductive Proximity Switches PB

## Sensing Distance (Sn)

The sensing distance of the inductive proximity sensor varies with different target materials. The sensing distance of the inductive sensors in the catalogue use a steel target. The sensing distance for other material can be calculated by multiply a correction factor shown in the table below:

Material	Attenuation coefficient
Steel	1
Stainless steel	0.85
Aluminum	0.4
Brass	0.4
Copper	0.3

The sensing distance will also vary with different size and shape of the target. A square target block will result in a longer sensing distance than a round one. A bigger target will have a longer sensing distance.

Note: Operating frequency of the inductive proximity switch is measured at 1/2 Sn.

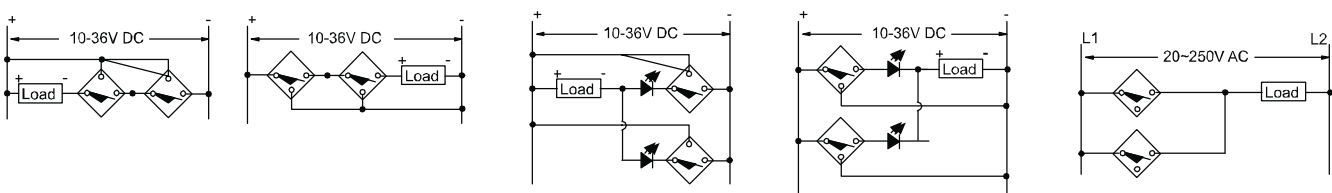
Repeat Accuracy (R) Ratio of the difference value between any of the two measurements and distance of checking (Sn).  
 Return Difference (H) Distance between operating point when target metal moves close to proximity switch and rest point when target metal moves away from proximity.

## Wiring Diagram

	Leadwire N.O.	Leadwire N.C.	Quick Connect N.O.	Quick Connect N.C.
NPN three-wire DC				
PNP three-wire DC				
two-wire AC				

Note: Load with two-wire AC can be connected to either of the brown or blue leadwire

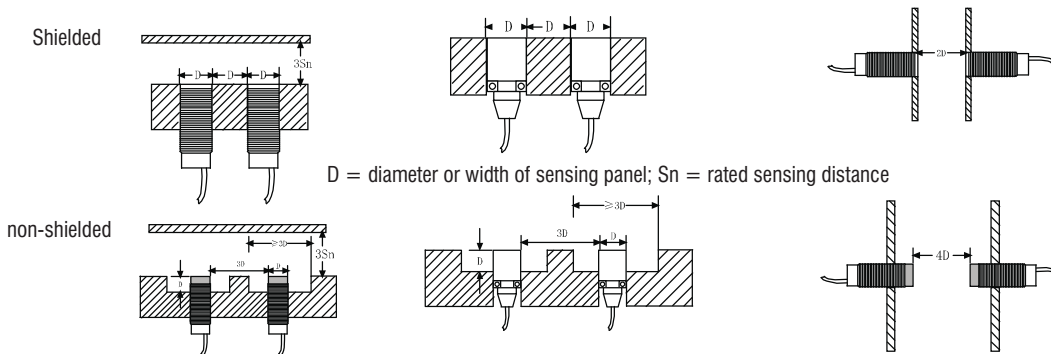
## Series and Parallel



Note:

- 1) For series connection, if sensor do not operate stably, provide each with 500 k to 10 M resistor in parallel. This will stabilise the voltage and allow the sensor to operate stably.
- 2) Use parallel connect only when 2 or more sensors are not activated simultaneously. The leakage current, however, will be n times the value for each sensor and reset failures will frequently occur.

## Mounting Requirements



D = diameter or width of sensing panel; Sn = rated sensing distance