

Rectangular Inductive Proximity Sensors



PSN Series (DC 3-wire) CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Major Features

- Excellent noise immunity with specialized sensor IC
- Built-in surge protection circuit, output short over current protection circuit, reverse polarity protection
- Simple operation, reliable performance, and high durability
- Alternate frequency models allow adjacent installation of multiple sensors without interference (PSN17-□-F model)
- Operation indicator (red LED)
- IP67 protection structure (IEC standard)

Ordering Information

This is only for reference.
For selecting the specific model, follow the Autonics web site.

PSN ① - ② **D** ③ ④ - ⑤

① Sensing side length

Number: Side length of head (unit: mm)

④ Sensing side

No-mark: Standard type
U: Upper side type

② Sensing distance

Number: Sensing distance (unit: mm)

⑤ Frequency

No-mark: Standard type
F: Differential frequency type

③ Control output

N: NPN Normally Open
N2: NPN Normally Closed
P: PNP Normally Open
P2: PNP Normally Closed

Product Components

	PSN17	PSN25	PSN30	PSN40
Bracket	1 ×	1 ×	1 ×	1 ×
Bolt	M3 × 2	M4 × 2	M4 × 2	M5 × 2

Specifications

Installation	Standard type / Upper side type		Standard type			
	PSN17-5D□□-□	PSN17-8D□□-□	PSN25-5D□	PSN30-10D□	PSN30-15D□	PSN40-20D□
Sensing side length	18 mm	18 mm	25 mm	30 mm	30 mm	40 mm
Sensing distance	5 mm	8 mm	5 mm	10 mm	15 mm	20 mm
Setting distance	0 to 3.5 mm	0 to 5 mm	0 to 3.5 mm	0 to 7 mm	0 to 10.5 mm	0 to 14 mm
Hysteresis	≤ 10 % of sensing distance					
Standard sensing target: iron	18 × 18 × 1 mm	25 × 25 × 1 mm	25 × 25 × 1 mm	30 × 30 × 1 mm	45 × 45 × 1 mm	60 × 60 × 1 mm
Response frequency ⁰¹⁾	700 Hz	200 Hz	300 Hz	250 Hz	200 Hz	100 Hz
Affection by temperature	± 10 % for sensing distance at ambient temperature 20 °C					
Indicator	Operation indicator (red)					
Approval	CE EAC	CE EAC	CE EAC	CE EAC	CE EAC	CE EAC
Unit weight (package)	≈ 62 g (≈ 83 g)	≈ 62 g (≈ 83 g)	≈ 71 g (≈ 103 g)	≈ 96 g (≈ 165 g)	≈ 96 g (≈ 165 g)	≈ 135 g (≈ 225 g)

01) The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Power supply	12-24 VDC≐ (ripple P-P: ≤ 10 %), operating voltage: 10-30 VDC≐
Current consumption	≤ 10 mA
Control output	≤ 200 mA
Residual voltage	≤ 1.5 V
Protection circuit	Surge protection circuit, output short over current protection circuit, reverse polarity protection
Insulation type	≥ 50 MΩ (500 VDC≐ megger)
Dielectric strength	1,500 VAC~ 50/60 Hz for 1 min (between all terminals and case)
Vibration	1 mm amplitude at frequency 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours
Shock	500 m/s ² (≈ 50 G) in each X, Y, Z direction for 3 times
Ambient temp.	-25 to 70 °C, storage: -30 to 80 °C (non-freezing or non-condensation)
Ambient humi.	35 to 95 %RH, storage: 35 to 95 %RH (non-freezing or non-condensation)
Protection structure	IP67 (IEC standards)
Connection	Cable type model
Wire spec.	Ø 4 mm, 3-wire, 2 m
Connector spec.	AWG 22 (0.08 mm, 60-wire), insulator diameter: Ø 1.25 mm
Material	Case: Heat-resistant ABS, standard type cable (black): polyvinyl chloride (PVC)

