

# Inductive sensor SP-05P, NO/PNP 10-30VDC

## Product codes:

Reference: AM4062

EAN13: -

UPC: 85365080

## Product features:

Voltage: 10-30 V DC

Output current: 150 mA

Cable length: 200 cm

Frequency: 800 Hz

Waterproof grade: IP67

Operating temperature: -25 °C - +80 °C

Output type: PNP

Output function: NO



## Product attributes:

## Product description:

The FOTEK SP-05P inductive proximity sensor is a non-contact sensor designed for detecting metal objects in automation and control applications. The design in a board housing allows for installation in limited space and frontal sensing in the vertical direction. The SP-05P model, according to the above marking, operates as a DC sensor with a PNP output and a NO switching function.

## Technical specifications

- Model: SP-05P
  - Series: PS Series Inductive Proximity Sensor
  - Manufacturer: FOTEK
  - Design type: plate type, plate design
  - Sensing principle: inductive proximity sensor
  - Output method: PNP
  - Output state: NO
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- Sensing distance: 5.0 mm
- Mounting method: flush
- Scanning direction: vertical
- Supply voltage: 10–30 VDC
- Maximum output current: 150 mA
- Maximum current consumption: 10 mA
- Residual voltage: 0.1 V
- Arrester current: 0.8 mA
- Power supply ripple: 20% Vp-p
- Hysteresis: 10% of sensing distance
- Temperature drift: 10  $\mu\text{m}/^\circ\text{C}$
- Voltage drift: 1  $\mu\text{m}/\text{V}$
- Protection circuit: short circuit and reverse polarity protection
- Working temperature: -25  $^\circ\text{C}$  to +80  $^\circ\text{C}$
- Operating humidity: 35% to 95% RH
- Protection: IP67
- Color of the sensing surface for the PNP variant: green
- Wire connections: brown +10 to 30 VDC, blue 0 V, black output
- Sensor body dimensions: 30.5 × 18.0 × 10.0 mm
- Cable length: 200cm
- Switching frequency: 800 Hz

#### **Functions and features**

- Non-contact inductive detection of metal objects.
- Board housing for fixed mounting using mounting holes.
- Recessed sensing design.
- PNP output with NO switching function.
- Three-wire DC connection according to the attached diagram.
- Short circuit and reverse polarity protection on the DC side of the variant.
- IP67 protection for use in industrial environments.

#### **Ideal for**

- Detection of metal parts in machine and automation assemblies.
- Position signaling of moving mechanisms.
- Use in fixtures, conveyors and assembly workplaces.
- Integration into control circuits with 10–30 VDC power supply.

#### **Package contents**

- Inductive proximity sensor FOTEK SP-05P with connection cable

#### **Why choose this product?**

- Clearly identified model with stated output type, sensing distance and power supply range.
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- Compact board design with dimensional drawing for assembly design.
- PNP NO output suitable for common DC control applications.
- Protective features and IP67 protection support use in technical installations.

#### **Installation and operating instructions**

- Follow the wiring diagram for the PNP variant: brown for positive supply, blue for 0 V, black as output.
- Mount the sensor in accordance with the flush mounting method specified.
- When designing the mounting, use the dimensional drawing of the specific SP-05P model.
- Do not exceed the specified supply voltage range or maximum output current.

#### **Safety notice**

- Make electrical connections with the power supply disconnected.
- Incorrect wiring may result in damage to the sensor or connected equipment.
- Observe the polarity of the power supply and output load according to the wiring diagram.
- Install the sensor in an industrial device in such a way as to avoid mechanical damage to the cable and sensor body.
- Installation into control systems and machinery should be carried out by a person with appropriate electrical qualifications.

#### **Product gallery:**

