



# Inductive Proximity Sensor/Switch Datasheet

## CJU4-12M Series Cylinder-shaped Proximity Sensor

### Introduction

- Inductive proximity switch is a device for realizing the non-electrical measurement by inductive winding or the change of coefficient of mutual induction.
- It has high resolution and accuracy for the monitoring and measurement of presence, movement and position of metallic objects.
- The operating distance of the sensor depends on the coil's size as well as the target's shape, size and material.
- It is divided into two categories according to the working state :  
NO - Normal Open type,  
NC - Normal Close type

### Features:

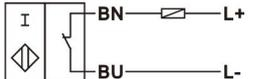
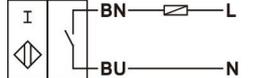
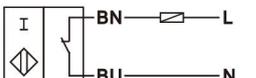
- ◆ Equivalent to the same type of the other brands (P+F and TURCK).
- ◆ Power supply reversal connection protection; short-circuit protection, can directly connect with PLC
- ◆ Newly added current over-load protection; the elements are made of imported chip
- ◆ Long service life, high reliability and strong resistance property to environment
- ◆ Red LED indicates that it's available to detect the sensor operating state
- ◆ Full thread shape to enlarge the installation space; can use wrench and clamp directly
- ◆ Countermeasure to improve the housing intensity and to solve disconnection
- ◆ IP67 protection structure(IEC specification)

### Ordering Part Number:

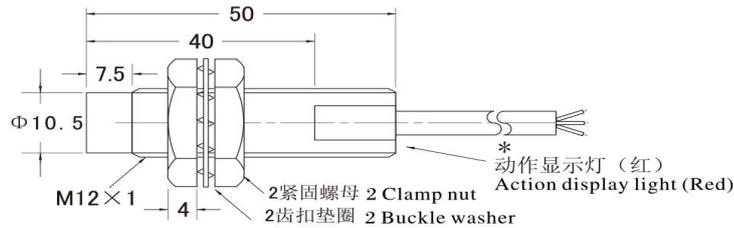
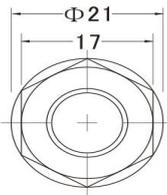
| Model       | Detection distance | Switch point function | Working voltage | Connection form |
|-------------|--------------------|-----------------------|-----------------|-----------------|
| CJU4-12M-N1 | 4mm±10%            | NPN NO                | DC6-36V         | NPN NO          |
| CJU4-12M-N2 | 4mm±10%            | NPN NC                | DC6-36V         | NPN NC          |
| CJU4-12M-N4 | 4mm±10%            | NPN NO+NC             | DC6-36V         | NPN NO+NC       |
| CJU4-12M-P1 | 4mm±10%            | PNP NO                | DC6-36V         | PNP NO          |
| CJU4-12M-P2 | 4mm±10%            | PNP NC                | DC6-36V         | PNP NC          |
| CJU4-12M-P4 | 4mm±10%            | PNP NO+NC             | DC6-36V         | PNP NO+NC       |
| CJU4-12M-D1 | 4mm±10%            | DC NO                 | DC10-30V        | DC NO           |



# Inductive Proximity Sensor/Switch Datasheet

|              |         |       |           |   |
|--------------|---------|-------|-----------|---|
| CJU4-12M-D2  | 4mm±10% | DC NC | DC10-30V  |  |
| CJU4-12M-A1  | 4mm±10% | AC NO | AC90-250V |  |
| CJU4-12M -A2 | 4mm±10% | AC NC | AC90-250V |  |

## Structure Parameter:



## Technical Parameter:

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Rated action distance (Sn)        | 4mm                                |
| Installation                      | Non-flush mounting                 |
| Reliable movement distance (Sa)   | 0~3.2mm                            |
| Switching frequency (f)           | DC 0~500 HZ                        |
| Switching frequency (f)           | AC 50/60HZ                         |
| Hysteresis (H)                    | Typical values%                    |
| Reverse polarity protection       | Yes                                |
| Short circuit protection          | Pulse                              |
| Voltage drop (Ud)                 | DC ≤ 1V                            |
| Voltage drop (Ud)                 | AC ≤ 7V                            |
| Working current (I <sub>L</sub> ) | 0~300 mA                           |
| Leakage current (I <sub>r</sub> ) | 0~0.5mA typical values 0.1uA, 25°C |
| No-load current (I <sub>D</sub> ) | ≤ 15mA                             |
| Indicator light                   | Red LED                            |



# Inductive Proximity Sensor/Switch Datasheet

|                                |                       |
|--------------------------------|-----------------------|
| environment temperature        | -20℃~70℃(248-343K)    |
| Connection form                | 2m, PVC               |
| Conductor cross-sectional area | 0.14mm                |
| Shell material                 | Brass, Nickel plating |
| Induction surface              | PBT                   |
| Protection grade               | IP65                  |
| Standard                       | EN 60947-1:2004       |

## Remarks:

- Inductive proximity sensors detect the metallic objects.
- The detection distance may fluctuate with the different materials of the detected target. Custom design in the different rated input current and the output voltage are available.
- Both the configuration parameters and the cable length can be customized. Standard cable length 2M.
- If no explicit requirement for the output polarity, the proximity sensor will be supplied based on NPN mode.

**WARNING : Incorrect wiring may cause damage to the sensor.**

