

Shield Cylindrical Proximity Sensor PEK251U_S



Specification

- Unshielded/shielded Models
- Variable sensing distance
- Long and short cylindrical body
- Output : NPN or PNP
- Normally open / normally closed function
- Rated operational voltage : 10 - 24 V DC
- Cable and Plug versions
- Reverse polarity protection
- Short circuit protection

Features and Benefits

- Detect an object without touching it, and they therefore do not cause abrasion or damage to the object.
- No contacts are used for output, so the Sensor has a longer service life
- Are suitable for use in locations where water or oil is used
- Provide high-speed response, compared with switches that require physical contact
- Can be used in a wide temperature range
- There are Two-wire Sensors

Specifications

PEK251 unshielded/Shield Proximity Sensors are available in models capacitive models to detect non-metal objects. Models are available with environment resistance, heat resistance, resistance to chemicals, and resistance to water. Application-specific integrated circuits, or ASICs for short, are used in the manufacturing technology of inductive sensor circuits (proximity switch) of Pars Electronics Kish Company. The use of ASICs technology has made it possible to program the characteristics of the sensor even after it has been installed on site.

In the previous technology, to adjust the distance between the sensor and the target, the existence of a potentiometer was necessary in the design of the sensor, but in the ASICs method, by removing the potentiometer, the process of adjusting the distance is more accurate, more stable and easier by the programming capability of the sensor. In addition, in the new method, the functions of the switch can be programmed as normally open and normally closed. Due to this capability, the variety of models in the sensors of Pars Electronics Kish Company has been reduced and this manufacturer produces only one model with programming capability, which can be used in various applications.

“Proximity Sensor” includes all sensors that perform non-contact detection in comparison to sensors, such as limit switches, that detect objects by physically contacting them. Proximity Sensors convert information on the movement or presence of an object into an electrical signal. There are detection systems that do this conversion with use magnets and reed switches.

Start Up

This sensor intelligently adapts to its temperature and environmental range, so after installing the sensor based on the blog diagram below, do not bring metal near it for the first 2 seconds to calibrate itself (WARM-UP).

After this step, the metals that are in the TARGET range of the sensor can be detected by the sensor.

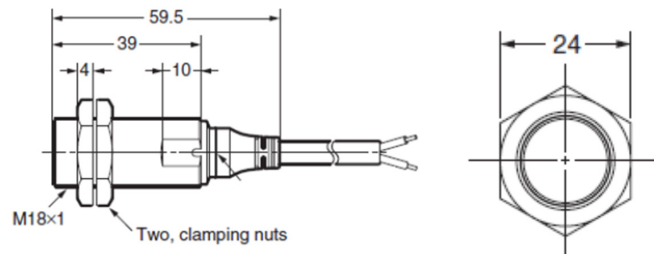
Specifications

Type	Non-shielded
size	M18
Sensing distance	8 mm±10%
Setting distance	0 to 6.4 mm
Target	Ferrous metal
Standard target	25×25×1 mm
Response frequency	600 Hz
Power supply voltage	12 to 24 VDC. Ripple (p-p): 10% max.
Output type	PNP or NPN (open collector)
Operation mode	Normally open (NO)
Connection	M12 Connector
Protection circuit	Short-circuit protection
Ambient air temperature	Operating: -40°C to 70°C, Storage: -40°C to 85°C
Weight	Approx.40g
Material. Case	Brass-nickel plated
Material. Sensing surface	PBT
Clamping nut material	Brass-nickel plated
Cable Material	PVC
Type of Case	Cylindrical

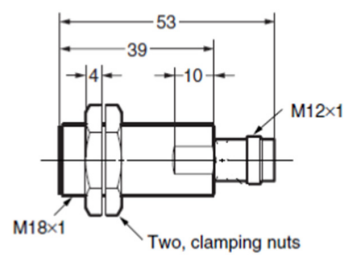
Dimension

Shielded

Pre-wired Models

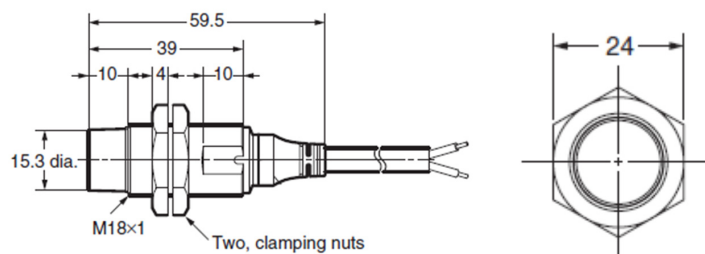


M12 Connector Models



Unshielded

Pre-wired Models



M12 Connector Models

