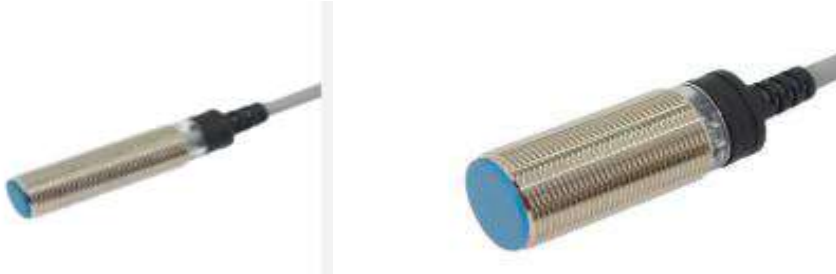




DENKI SEIGYO

Cylindrical Inductive Proximity Sensor – DC 3-Wire



Product Series

DPR Series – Round Inductive Proximity Sensors (DC)

Designed for reliable **non-contact detection of metallic objects** in industrial automation systems including packaging machines, conveyors, automation panels, robotics, and machine tools.

Model Nomenclature

Example: DPR18-8DP

Code	Meaning
D	Denki Seigyo
PR	Round Proximity Sensor
08 / 12 / 18 / 30	Sensor Diameter (mm)
2 / 4 / 8 / 15	Sensing Distance (mm)
D	DC Power Supply
P	PNP Output
N	NPN Output
Cable	Fixed cable connection



Available Models

Model	Diameter	Sensing Distance	Output Type	Connection
DPR08-2DP	M8	2 mm	PNP NO	Cable
DPR08-2DN	M8	2 mm	NPN NO	Cable
DPR12-4DP	M12	4 mm	PNP NO	Cable
DPR12-4DN	M12	4 mm	NPN NO	Cable
DPR18-8DP	M18	8 mm	PNP NO	Cable
DPR18-8DN	M18	8 mm	NPN NO	Cable
DPR30-15DP	M30	15 mm	PNP NO	Cable
DPR30-15DN	M30	15 mm	NPN NO	Cable

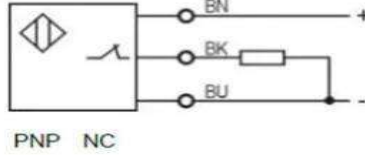
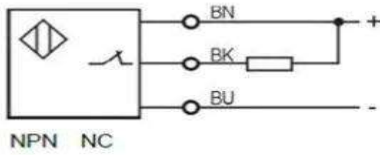
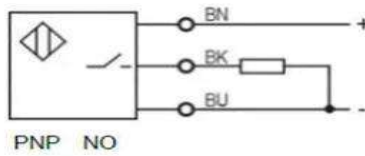
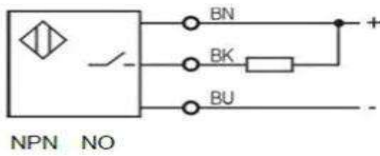
Specifications

Parameter	Specification
Sensor Type	Inductive Proximity Sensor
Operating Voltage	10 – 30 VDC
Output Type	PNP / NPN (Normally Open)
Wiring	3-Wire
Sensing Object	Ferrous Metal
Standard Target	Mild Steel (Fe)
Response Frequency	500 Hz
Output Current	Max 200 mA
Residual Voltage	< 2.5 V
Current Consumption	< 10 mA
Protection Circuit	Reverse polarity / Short circuit
Indicator	Red LED status indicator
Ambient Temperature	-25°C to +70°C
Protection Degree	IP67
Housing Material	Nickel Plated Brass
Sensing Surface	PBT / ABS
Cable Type	2 m PVC cable
Mounting	Flush

Sensing Distance

Sensor Size	Model	Sensing Distance
M8	DPR08	2 mm
M12	DPR12	4 mm
M18	DPR18	8 mm
M30	DPR30	15 mm

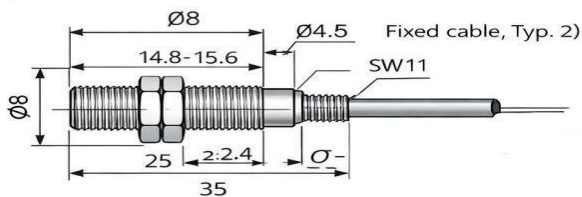
Wiring Diagram



Mechanical Dimensions (Overview)

Mechanical Dimension Drawing

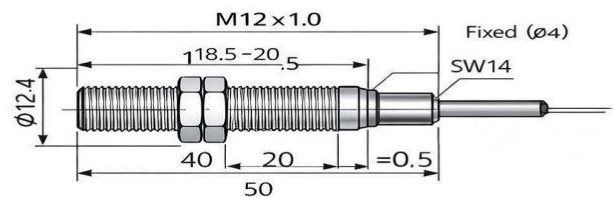
M8



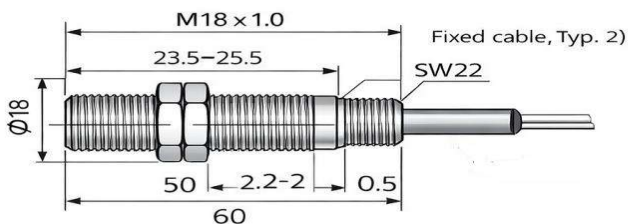
M12

(Unit: mm)

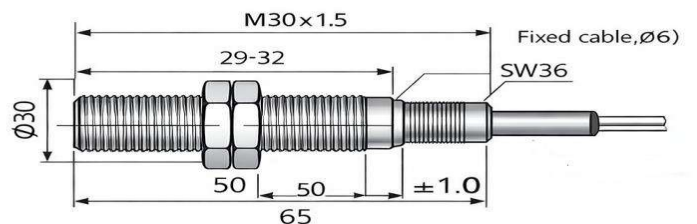
M12



M18



M30





Key Advantages

- Long sensing distance
- High reliability and stability
- Built-in surge protection
- LED operation indicator
- Short circuit protection
- Robust metal housing
- IP67 protection for harsh environments

Typical Applications

- Industrial automation systems
- Packaging machines
- Conveyor systems
- Robotics
- Machine tools
- Position detection
- Metal part detection