



DENKI SEIGYO

Inductive Proximity Sensor



Round Full-Metal Inductive Proximity Sensor – M8 Diameter

1. PRODUCT OVERVIEW

The **Denki Seigyo DPRF08-2DP-PC** is a compact inductive proximity sensor designed for reliable detection of metallic objects in industrial automation systems. The sensor features a **full-metal stainless-steel housing**, high noise immunity, and stable switching performance.

It is ideal for machine automation, packaging systems, robotics, and conveyor monitoring applications.

Key advantages include:

- Full metal body for durability
- High switching reliability
- Compact **M8 cylindrical design**
- LED switching indication
- Protection against reverse polarity and short circuit

2. MODEL CODE STRUCTURE

Code	Description
D	Denki Seigyo
PR	Round Proximity Sensor
F	Full Metal Body
08	M8 Diameter
2	2 mm sensing distance
D	DC type
P	PNP output
PC	Pig tail cable
C	Connector type
Blank	Cable type



Ordering Information

Model	Output Type	Sensing Distance	Housing	Connection Type
DPRF08-2DP-PC	PNP NO	2 mm	Full Metal M8	Pig tail cable
DPRF08-2DP-C	PNP NO	2 mm	Full Metal M8	M12 Connector
DPRF08-2DP	PNP NO	2 mm	Full Metal M8	Cable Type

3. KEY FEATURES

- Compact **M8 cylindrical sensor**
- **Full metal stainless steel body**
- **2 mm sensing distance**
- **PNP normally open output**
- Reverse polarity protection
- Short-circuit protection
- High switching frequency
- LED switching indicator
- IP67 protection

4. TECHNICAL SPECIFICATIONS

General Specifications

Parameter	Specification
Switching Function	Normally Open (NO)
Output Type	PNP
Rated Sensing Distance (Sn)	2 mm
Installation	Quasi flush
Output Type	3-wire DC
Assured Operating Distance	0 – 2 mm

Reduction factors for different metals:

Material	Reduction Factor
Aluminum	0.25
Copper	0.22
Stainless Steel	0.65

These values correspond to the sensor's detection capability depending on the target material.



5. ELECTRICAL SPECIFICATIONS

Parameter	Specification
Operating Voltage	10 – 30 V DC
Switching Frequency	0 – 500 Hz
Voltage Drop	≤ 2 V
Load Current	0 – 200 mA
Off-State Current	≤ 0.1 mA
No-Load Current	≤ 10 mA

Protection features include:

- Reverse polarity protection
- Short-circuit protection (pulsing)

These electrical ratings ensure reliable operation in industrial environments.

6. INDICATOR

Indicator	Function
Yellow LED	Output switching indicator

7. MECHANICAL SPECIFICATIONS

Parameter	Specification
Housing Material	Stainless steel
Sensing Face	Stainless steel
Diameter	8 mm
Length	35 mm
Protection Class	IP67

The compact body allows easy installation in limited spaces.

8. ENVIRONMENTAL CONDITIONS

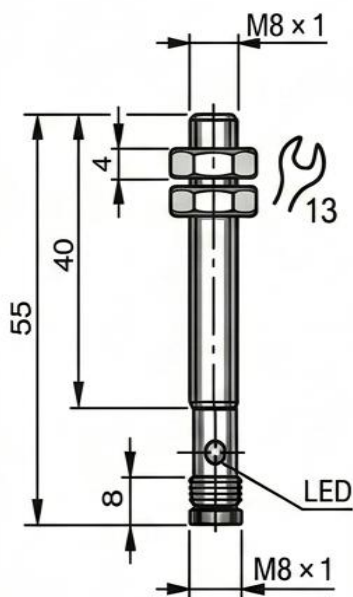
Parameter	Specification
Operating Temperature	−25 °C to +70 °C
Protection Degree	IP67

9. DIMENSIONS & ELECTRICAL CONNECTION

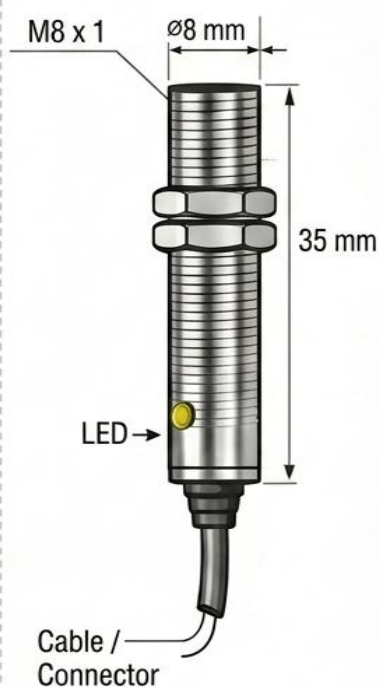
M8 Sensor Specifications

Dimension Drawing

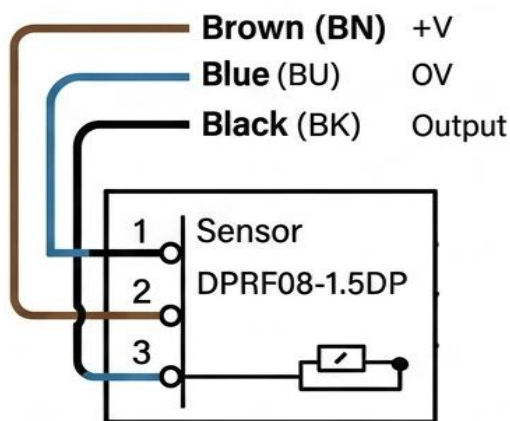
Line-Art Schematic



Technical Illustration



Wiring Diagram



Wiring Diagram:

- 1 Brown (BN) +V
- 2 Blue (BU) OV
- 3 Black (BK) Output

Wire colors follow EN 60947-5-2 standard.

10. APPLICATIONS

- Industrial automation
- Conveyor systems
- Packaging machines
- Robotics
- Position detection
- Assembly lines