



| Model List | Detection Distance | Operation Configuration |
|---------------|--------------------|-------------------------|
| CDH-SR10V-5V | 10 mm | Normally open |
| CDH-SR10V1-5V | | Normally closed |
| CDH-SR15V-5V | 15 mm | Normally open |
| CDH-SR15V1-5V | | Normally closed |

Application

- Detection of rice grains, cereales, bran, wood, powders, liquids, etc.
- Chemicals and water level detection inside tanks
- Presence detection of food within the package
- Detection of the liquid in the PET bottle or in paper pack

Features

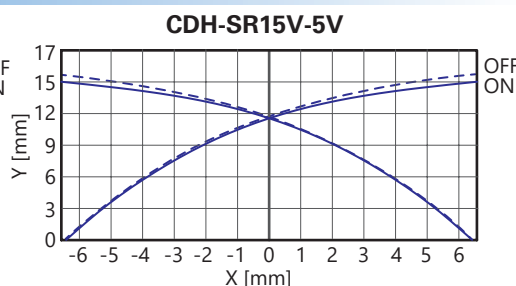
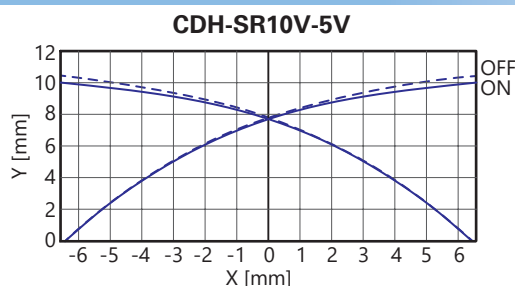
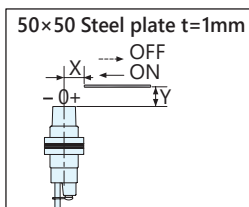
- High-sensitivity capacitive sensor that can detect almost any target regardless of the material.
- Shaped as an M 22 × P 1.5 plastic screw for easy installation and position adjustment.
- Equipped with a 18-turn trimmer potentiometer to adjust the sensitivity.
- The interior is filled with solid plastic to increase robustness.

Rating/Performance

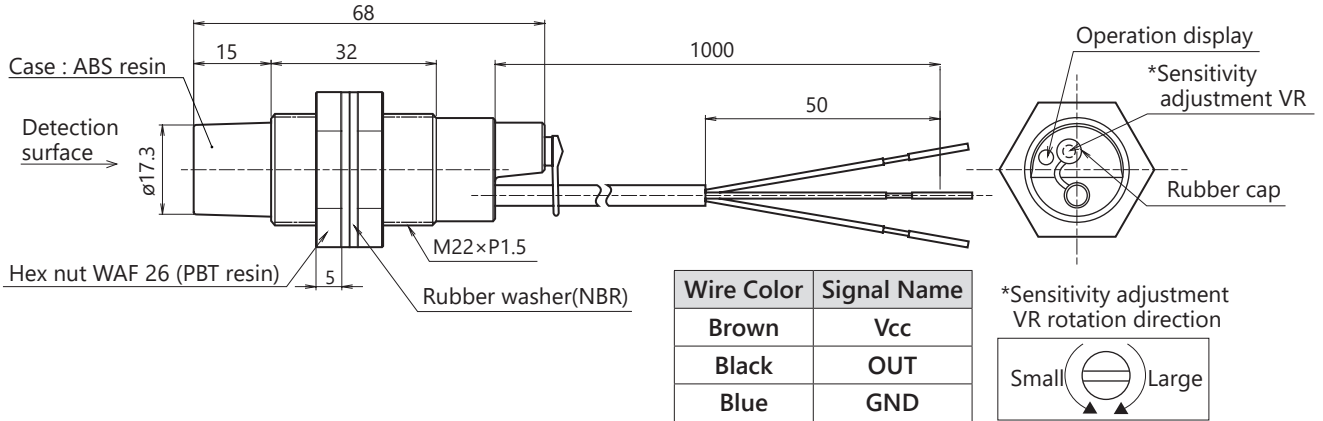
| Model | CDH-SR10V-5V | CDH-SR10V1-5V | CDH-SR15V-5V | CDH-SR15V1-5V |
|---------------------------------------|---|--|--|--|
| Detection Surface | Front side detection | | | |
| Detection Distance | 10 mm | | 15 mm | |
| Hysteresis | 10 % or less of the detection distance | | | |
| Detection Distance Variable Use Range | 4 to 10 mm | | 7 to 15 mm | |
| Detection Target | Grounded metal of 50 × 50 mm and 1 mm in thickness | | | |
| Power Voltage | 5 V DC (Operating voltage range : 4.5 V to 5.5 V DC) | | | |
| Power Consumption | 30 mA DC or less | | | |
| Output | NPN transistor open collector 30 V DC, 100 mA DC or less | | | |
| Output Residual Voltage | 1 V DC or less (Load current 100 mA DC) | | | |
| Operation Status | Normally open (On output with detection target) | Normally closed (Off output with detection target) | Normally open (On output with detection target) | Normally closed (Off output with detection target) |
| Operation Indication | Red LED (Lit when On output) | | | |
| Response Frequency | 50 Hz or more | | | |
| Temperature Range | -10 to 55 °C (-15 to 60 °C during storage) (Without dew condensation or freezing) | | -10 to 60 °C (-15 to 60 °C during storage) (Without dew condensation or freezing) | |
| Humidity Range | 35 to 95 % RH (35 to 95 % RH during storage) (Without dew condensation) | | | |
| Breakdown Voltage | 500 V AC, 50/60 Hz for 1 min (Between live parts and the case) | | | |
| Insulation Resistance | 50 MΩ or more, at 500 V DC megger (Between live parts and the case) | | | |
| Vibration Resistance | Durability : 10 to 55 Hz, Double amplitude: 1.5 mm in X-, Y-, and Z-direction, each 2 hours (Device not powered) | | | |
| Shock Resistance | Durability : 500 m/s ² (Approx. 50 G) in X-, Y-, and Z-direction, each 3 times (Device not powered) | | | |
| Ingress Protection | IP65 | | | |
| Case Material | ABS (Hex nut: PBT, Rubber washer: NBR) | | | |
| Cable | ø4, 3-core round cord of 0.2 mm ² and insulation 1.1 mm and 1 m in length (Oil and heat resistant) | | | |
| Weight | Approx. 52 g (Without accessories) | | | |
| Accessories | 2 hex nuts (plastic), 2 rubber washers, 1 slotted screwdriver for adjustment | | | |

Characteristics Graph (Typical Example)

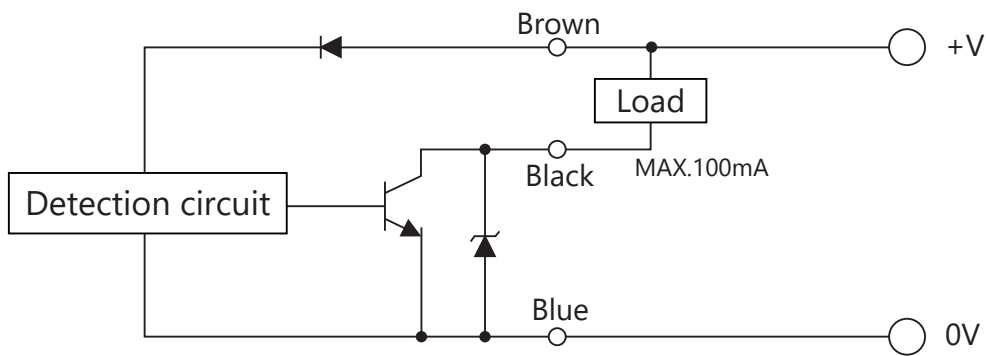
Detection range



Dimensions



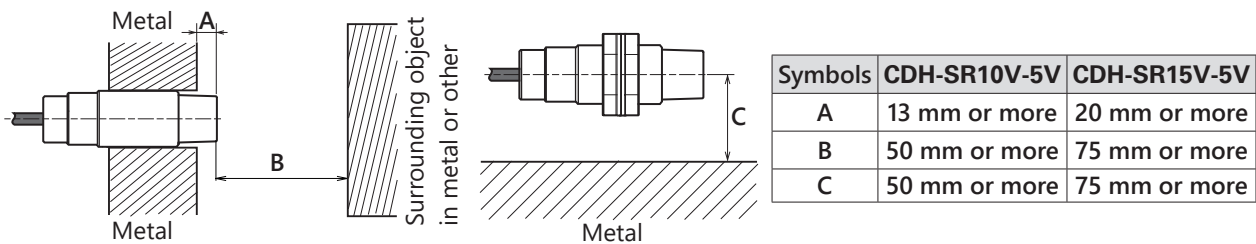
Output Circuit



Precautions During Use

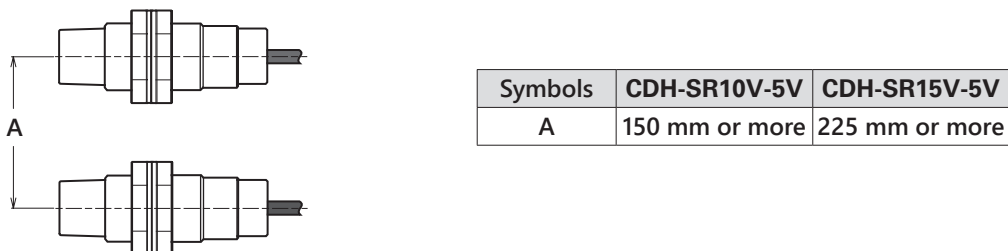
Influence of surrounding metal

- If there are metal objects around the proximity sensor, leave at least the space indicated in the figure below between them and the sensor.



Mutual interference

- If you use two or more of the same product, separate them at least by the distances shown in the figure below to prevent reciprocal interference.



Installation

- Tighten the case with a torque of 0.5 N·m or less.

* For other precautions, refer to "General Precautions" for proximity sensors.