

Model MDP-C10 Cylindrical Proximity Sensor



Model List	Operation Configuration
MDP-C10	Normally open
MDP-C101	Normally closed

Application

- Magnetic metal detection
- Positioning of the processing machines
- Position detection of the the metal pallets and moving table

Features

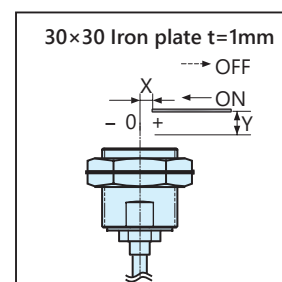
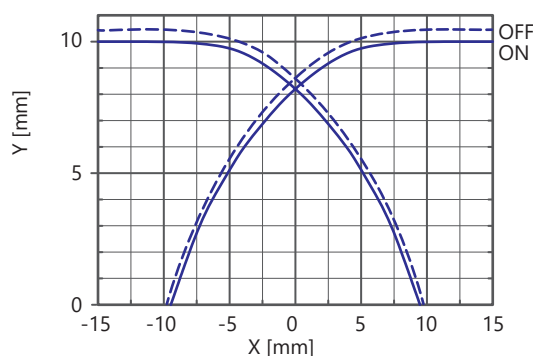
- Shaped as a screw for easy installation and position adjustment.
- Safely available even in the place where water may splash thanks to its molded type.
- Cylindrical proximity sensor of M30 screw.

Rating/Performance

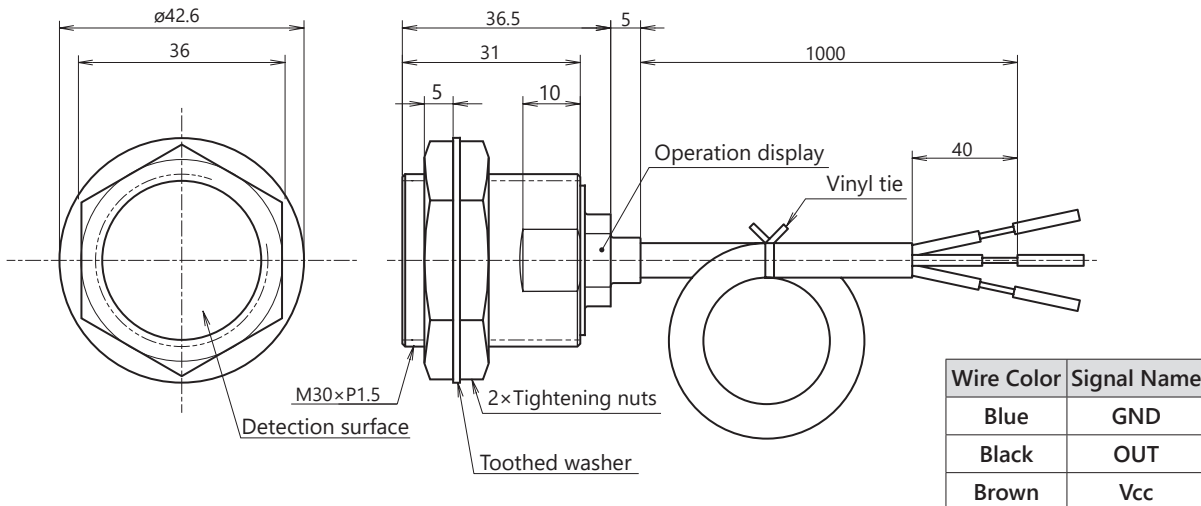
Model	MDP-C10	MDP-C101
Detection Surface	Front side detection	
Detection Distance	10 mm (With detection target of iron plate of 30 x 30 mm and 1 mm in thickness)	
Hysteresis	10 % or less of the detection distance	
Measurement Distance	0 to 8.0 mm	
Power Voltage	12 V to 24 V DC (Operating voltage range: 10 V to 30 V DC)	
Power Consumption	10 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 and a 1-meter cord)	
Operation Status	Normally open (On output with detection target)	Normally closed (Off output with detection target)
Operation Indication	Red LED (Lit when On output)	
Response Frequency	400 Hz or more	
Temperature Range	-25 to 70 °C (-25 to 80 °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	1000 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: 1000 m/s ² (Approx. 50 G) in X-, Y-, and Z-direction, each 10 times (Device not powered)	
Ingress Protection	IP67	
Case Material	Case : Brass nickel coating, Detection surface : PBT, Connected part : Polyarylate	
Cable	ø6, 3-core round cord of 0.5 mm ² and insulation 1.9 mm and 1 m in length (oil and heat resistant) * Can change to ø4, 3-core round cord of 0.3 mm ² .	
Weight	Approx. 165 g (Including accessories)	
Accessories	2 hex nuts (brass nickel coating), 1 toothed washer	

Characteristics Graph (Typical Example)

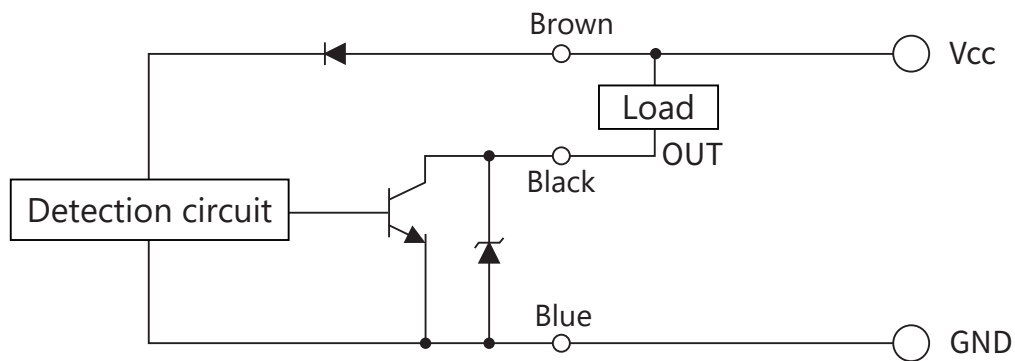
Detection range



Dimensions



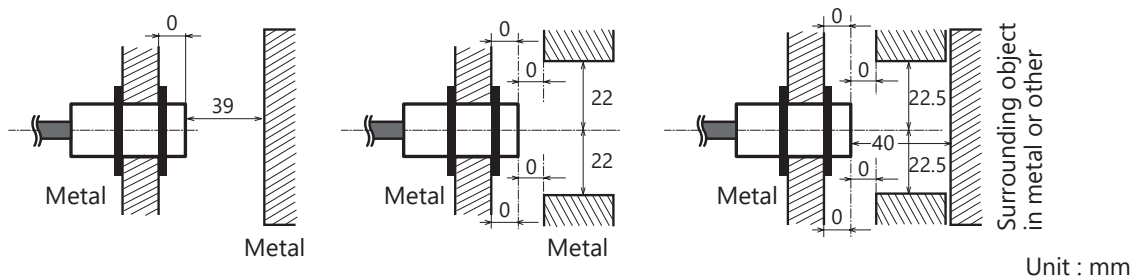
Output Circuit



Precautions During Use

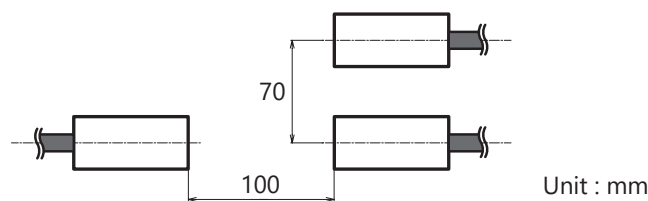
Influence of surrounding metal

- 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 180 N·m or less.

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