

# Model MDS-X25C Ultra-high Sensitive Inductive Sensor



## □Model List

	Standard Frequency	Different Frequency
Normally open	MDS-X25C	MDS-X25CB
Normally closed	MDS-X251C	MDS-X251CB

## Application

- Iron sheet detection
- Slot medal detection
- Detection of pachinko balls
- Detection of coins
- Detection of medals level
- Detection of pachinko balls level

## Features

- Economical and easy to use open collector output inductive sensor.
- External light, dirt and dust do not affect operation.
- Perfect for metal and other detections such as pachinko balls, medals and level detection with its long detection distance.
- The different frequency type MDS-X25CB is also available to prevent interference when two sensors are installed together.

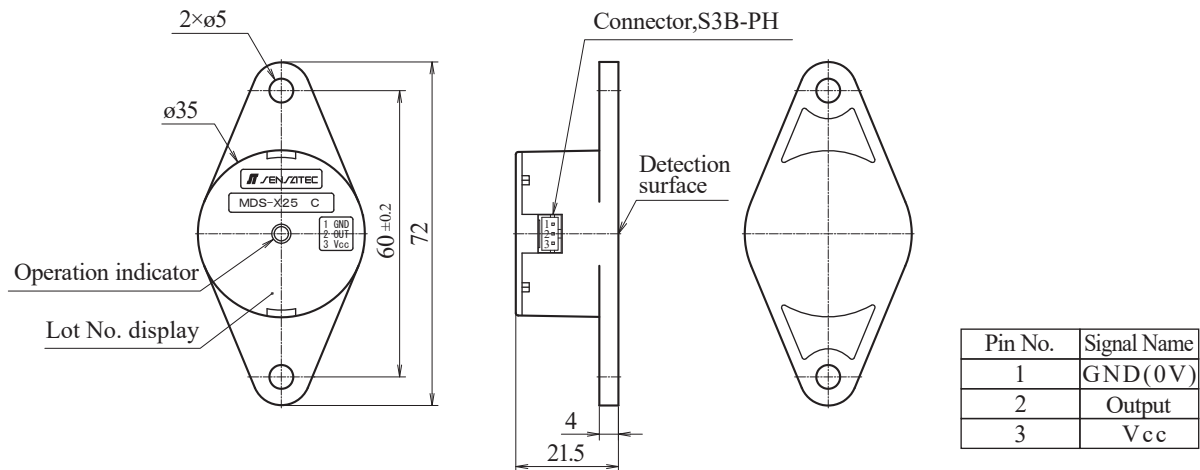
## Rating / Performance

Model	MDS-X25C	MDS-X251C
Detection Surface	Upper side detection	
Detection Distance	25 mm	
Hysteresis	0.1 mm or more	
Standard Detection Target	Iron sheet of 100 × 100 mm and 1 mm in thickness	
Power Supply Voltage	5 V to 24 V DC (Operating voltage range: 4.5 V to 26.4 V DC)	
Current Consumption	2 mA DC or less	
Output	30 V DC 70 mA DC or less Nch MOSFET open drain	
Operation Status	Normally open (ON output when detecting)	Normally closed (OFF output when detecting)
Operation Indicator	Red LED (Lit when the output is ON)	
Response Frequency	100 Hz or more	
Temperature Range	-10 to 50 °C (Without dew condensation or icing)	
Humidity Range	35 to 85% RH (Without dew condensation)	
Protection	IP50	
Case Material	ABS	
Connector	Connector : S3B-PH-K-S (from J.S.T. Mfg. Co., Ltd.) [Connections] Housing : PHR-3, Contact: SPH-002T-P0.5 (from J.S.T. Mfg. Co., Ltd.)	
Weight	Approx. 35 g	
Options (Sold Separately)	Connector harness : CNH-PHR03S24-300	

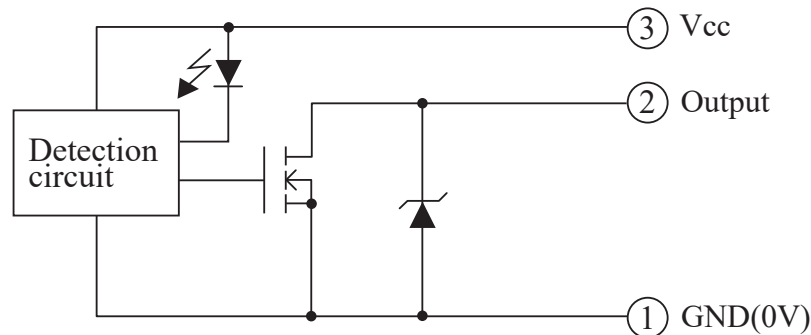
## Typical Values

Detection target	Operation distance	Detection target	Operation distance
100×100×t1 Iron sheet	25.0 mm	Nickel medal	9.4 mm
Stainless iron medal	15.1 mm	Golden nickel silver medal	9.4 mm
Daika medal	14.9 mm	Brass Kirinsu medal	9.8 mm
Bimetallic medal	15.0 mm	Gold plated medal	9.4 mm
Nickel silver medal	12.0 mm	Pachinko ball(Front side)	8.5 mm

## Outline Dimensions



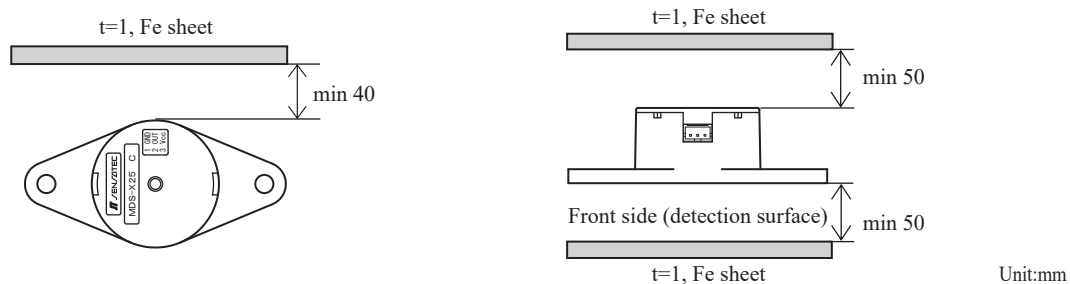
## Output Circuit



## Precautions During Use

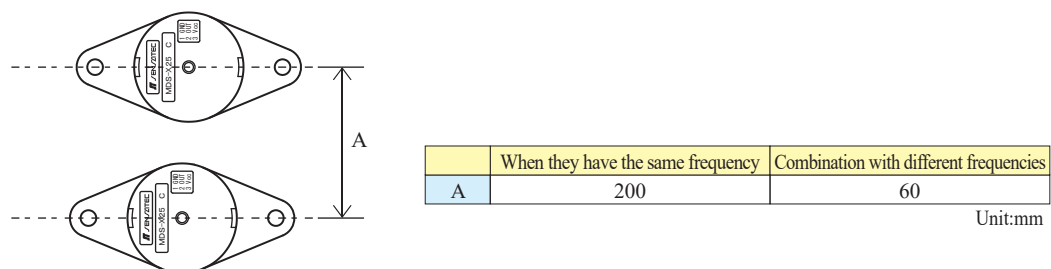
### - Influence of surrounding metal

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



### - Mutual interference

If you use a number of the same product, separate them at least by the distances shown in the figure below to prevent reciprocal interference. (Sensors with a different frequency are indicated with a B after the model name.)



### -Mounting

Always use plain washers to tighten the case and use a torque of 0.5 N·m or less.

- See inductive sensor general usage precautions for other precautions.

\*For a detailed specification of the other, please refer to specifications.