

Model CCS-L2 Small Electrostatic-capacity Proximity Sensor



□Model List

Power Supply Voltage

12V to 24 V DC	CCS-L2
5V DC	CCS-L2-5

Application

- (Detect a human finger) push button switch on the door and elevator, etc.,
- ON / OFF of the switch through the various panel
- Tanks, pipes, and liquid presence detection of paper pack

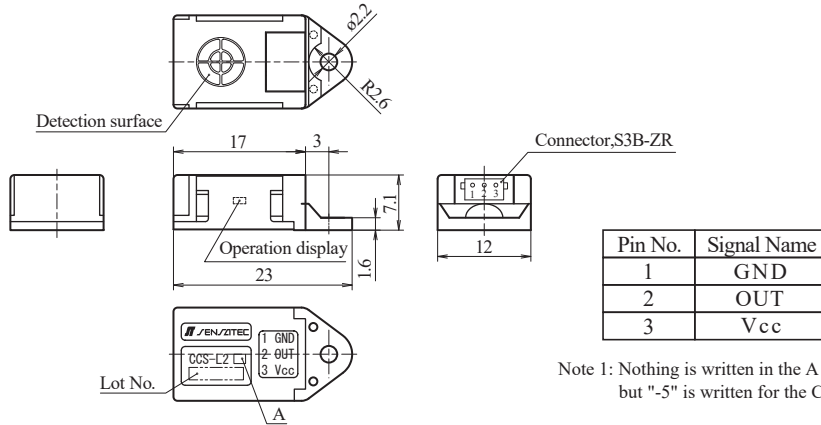
Characteristics

- High-sensitivity electrostatic-capacity proximity sensor that can detect almost any target regardless of the material.
- Can detect a target indirectly when an object with low inductance is on the detection surface.
- Ultra-small flat type for an easy installation even in shallow and narrow places.
- Equipped with a connector for easy wiring.

Rating / Performance

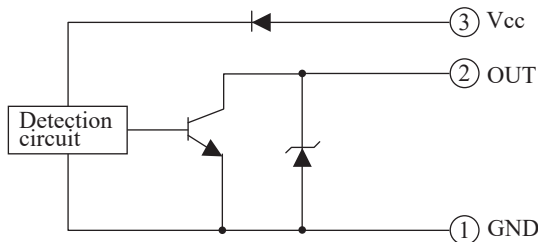
Model	CCS-L2	CCS-L2-5
Detection Surface	Upper side detection	
Detection Distance	2 mm ^{+20 %} _{-10 %}	
Hysteresis	15% or less of the detection distance	
Set Distance	0 to 1.5 mm	
Standard Detection Target	Grounded metal of 18 × 25 mm and 1 mm in thickness	
Power Supply Voltage	12 V to 24 V DC (Operating voltage range : 10.8 V to 26.4 V DC)	5 V DC (Operating voltage range : 4.75 V to 5.5 V DC)
Power Consumption	15 mA DC or less	10 mA DC or less
Output	30 V DC 50 mA DC or less NPN transistor open collector	
Output Residual Voltage	1 V DC or less (Load current 50 mA DC)	
Operation Configuration	Normally open (On output with detection target)	
Operation Display	Red LED (Lit when On output)	
Response Frequency	100 Hz or more	
Operating Temperature Range	-10 to 55 °C (-15 to 60 °C during storage)(Without dew condensation or freezing)	
Operating Humidity Range	35 to 90% RH (35 to 90% RH during storage)(Without dew condensation)	
Withstand Voltage	1 min at 500 V AC 50/60 Hz (Between the live part and case)	
Insulation Resistance	50 MΩ or more measured with an ohmmeter at 500 V DC (Between the live part and case)	
Vibration Resistance	Durability : 2 hours in each X, Y, Z direction at 10 to 55 Hz and with peak-to-peak amplitude of 1.5 mm (At power off)	
Shock Resistance	Durability : 3 times at 500 m/s ² (approx. 50 G) in each X, Y, Z direction (At power off)	
Protection Rating	IP40	
Case Material	Polyarylate	
Connector	Connector : S3B-ZR-SM4A-TF (3-pin)(from J.S.T. Mfg. Co., Ltd.) [Connections] Housing : ZHR-3, Contact : SZH-002T-P0.5 (from J.S.T. Mfg. Co., Ltd.)	
Weight	Approx. 2 g	
Options (Sold Separately)	Connector harness : SZH-3-300	

External Dimensions Diagram

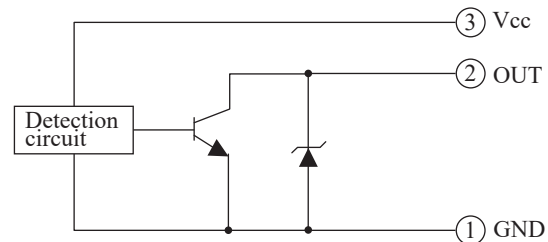


Output Circuit

CCS-L2



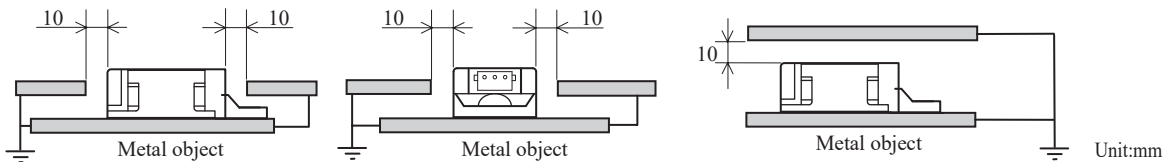
CCS-L2-5



Usage Precautions

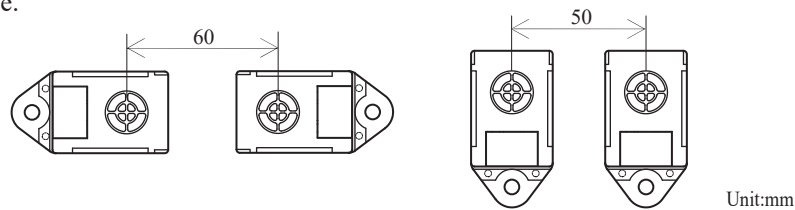
- Influence of surrounding metal

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.

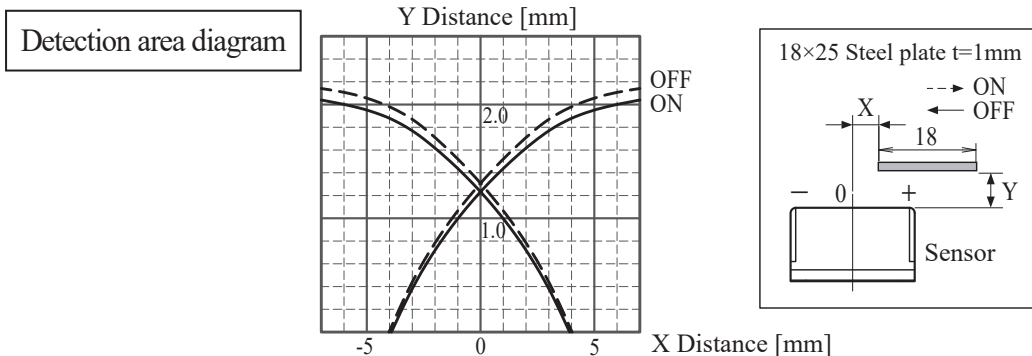


- Installation

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

- See proximity sensor general usage precautions for other precautions.

Characteristics Graph (Typical Example)



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