Model CCS-C5

Thin electrostatic-capacity proximity sensor

SENSATEC CO.,LTD.
http://www.sensatec.co.jp

□Model list

Power supply voltage

12V to 24 V DC	CCS-C5
5V DC	CCS-C5-5

Application

- Detection of grain
- Detection of the liquid in the paper pack
- Detection of insulating materials

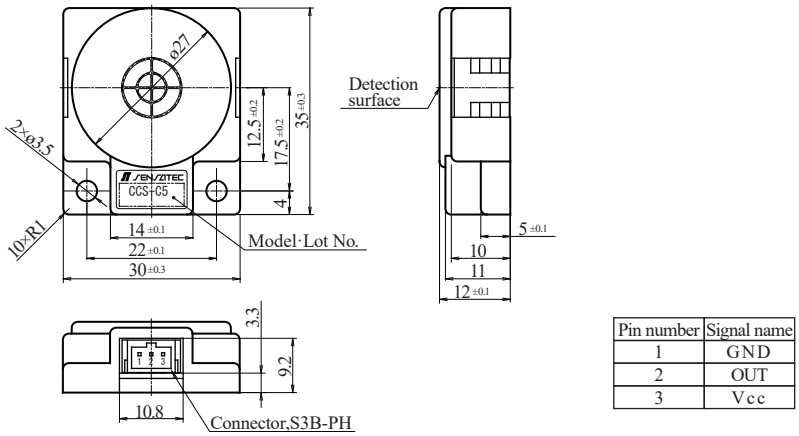
Characteristics

- 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.
- Small flat type for an easy installation even in shallow and narrow places.
- Equipped with a connector for easy wiring.

Rating and performance

Model name	**CCS-C5**	**CCS-C5-5**
Detection surface	Upper side detection	
Detection distance	5 mm ±10 %	
Hysteresis	10% or less of the detection distance	
Set distance	0 to 4.0 mm	
Standard detection target	Grounded metal of 50 × 50 mm and 1 mm in thickness	
Power supply voltage	12 V to 24 V DC (Operating voltage range: 10 V to 26.4 V DC)	5 V DC (Operating voltage range: 4.5 V to 5.5 V DC)
Power consumption	DC 10 mA or less	
Output	DC 30 V DC 50 mA or less NPN transistor open collector	
Output residual voltage	DC 1 V or less (load current DC50 mA)	
Operation configuration	Normally open (On output with detection target)	
Response frequency	100 Hz or more	
Operating temperature range	-10 to 60 °C (-15 to 70 °C during storage)(Without dew condensation or freezing)	
Operating humidity range	85% RH or less (90% RH or less during storage)(Without dew condensation)	
Withstand voltage	1 min at AC 500 V 50/60 Hz (between the live part and case)	
Insulation resistance	50 MΩ or more measured with an ohmmeter at DC 500 V (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	IP50	
Case material	PBT	
Connector	Connector : S3B-PH-SM4-TB (3-pin) (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. 15 g	
Options (sold separately)	Connector harness : CNH-PHR03S24-300	

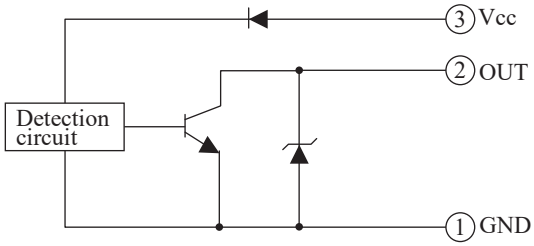
External dimensions diagram



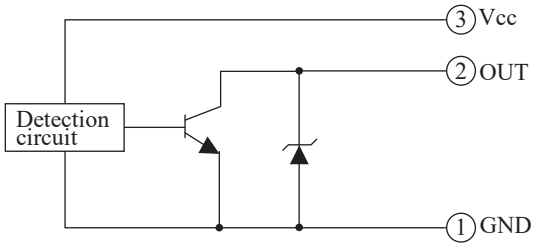
Pin number	Signal name
1	GND
2	OUT
3	Vcc

Output circuit

CCS-C5



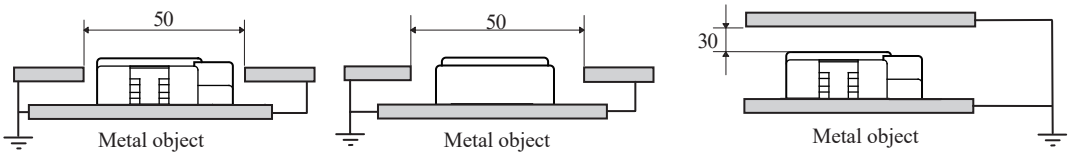
CCS-C5-5



Usage precautions

- Influence of surrounding metal

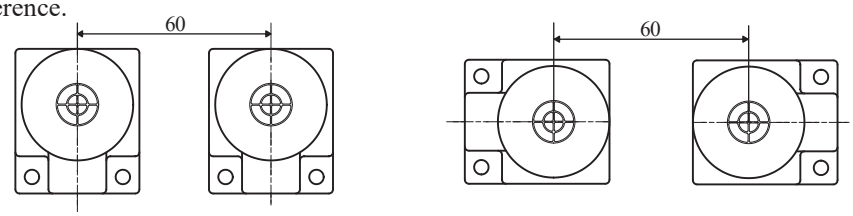
If there are metal objects around the proximity sensor, leave at least the space indicated in the figure below between them and the sensor.



Unit:mm

- 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.



Unit:mm

- Installation

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

- See proximity sensor general usage precautions for other precautions.

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