

## Capacity Proximity Sensor/Switch Datasheet

### **CCT2-12GM Series Electrostatic Capacity Type**

## **Proximity Switch**

### Introduction

- Capacitive sensors measure the proximity of conductive as well as non-conductive objects with high resolution.
- Analogous to the function of an inductive proximity sensor, a capacitive proximity sensor generates an electrostatic field at the face of the sensor.
- Capacitive proximity sensors can be tuned to detect a wide range of powder, liquid or solid materials.
- It is also possible to detect the presence or absence of materials within a barrier or package when the dielectric of the material is greater than the barrier or packaging.
- Capacitive sensors can also be used as a limit switch, for level detection, object detection and for counting purposes.
- It is divided into two categories according to the working state:
  - NO Normal Open type,
  - NC Normal Close type

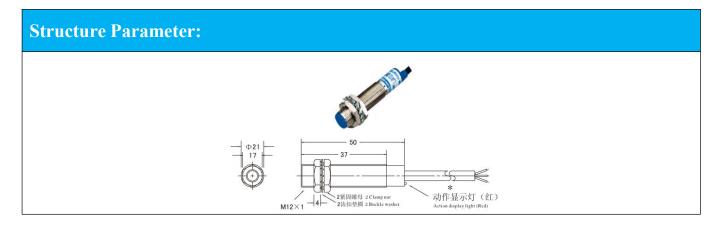
#### **Features:**

- ◆ Capacitive type, can detect any dielectric
- Power supply reversal connection protection; short-circuit protection, can directly connect with PLC
- Newly added current over-load protection; the elements are made of imported chip
- ◆ Long service life, high reliability and strong resistance property to environment
- Red LED status indicator provides easy-to-view output status.
- Simple operation with adjustable distance.
- The device can be powered by either an AC or DC power source.
- ◆ IP67 protection structure(IEC specification)

Ordering Part Number:				
Model	Detection distance	Switch point function	Working voltage	Connection form
CCT2-12GM-N1	2mm±10%	NPN NO	DC6-36V	NPN NO  I BN L+  BK BL  L-
CCT2-12GM-N2	2mm±10%	NPN NC	DC6-36V	NPN NC  I BN BK L+
CCT2-12GM-P2	2mm±10%	PNP NO	DC6-36V	PNP NO  I BN L+  BK BL
CCT2-12GM-P2	2mm±10%	PNP NC	DC6-36V	PNP NC  I BN L+  BU BL-  L-



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Technical Parameter:				
Rated action distance (Sn)	2mm			
Installation	Flush-mounting			
Reliable movement distance (Sa)	0~1.7mm			
Switching frequency (f)	50Hz			
Hysteresis (H)	Typical values%			
Reverse polarity protection	Yes			
Short circuit protection	Pulse			
Voltage drop (Ud)	DC≤1V			
Voltage drop (Ud)	AC≤7V			
Working current (I <sub>L</sub> )	0~300 mA			
Leakage current (Ir)	0~0.5mA typical values 0.1uA, 25°C			
No-load current (I <sub>D</sub> )	≤15mA			
Indicator light	Red LED			
environment temperature	-20°C~70°C (248-343K)			
Connection form	2m, PVC			
Conductor cross-sectional area	$0.14 \text{mm}^2$			
Shell material	Brass, Nickel plating			
Induction surface	PBT			
Protection grade	IP67			
Standard	EN 60947-1:2004			

### Remarks:

- Inductive proximity sensors detect the metallic objects.
- The detection distance may fluctuate with the different materials of the detected target. Custom design in the different rated input current and the output voltage are available.
- Both the configuration parameters and the cable length can be customized. Standard cable length 2M.





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> If no explicit requirement for the output polarity, the proximity sensor will be supplied based on NPN mode.

WARNING: Incorrect wiring may cause damage to the sensor.