



# Amplified Capacitive Sensors Ø 30

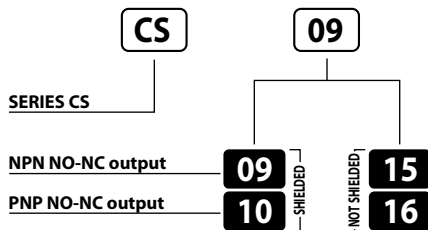
## AMPLIFIED CAPACITIVE SENSORS IN METAL HOUSING 12÷30 VDC NPN OR PNP OUTPUT

- Four wires, 12-30 VDC
- NPN - NO and NC
- PNP - NO and NC
- Adjustable range, 9-turn trimmer
- Nickel-plated brass
- High noise immunity
- High temperature stability

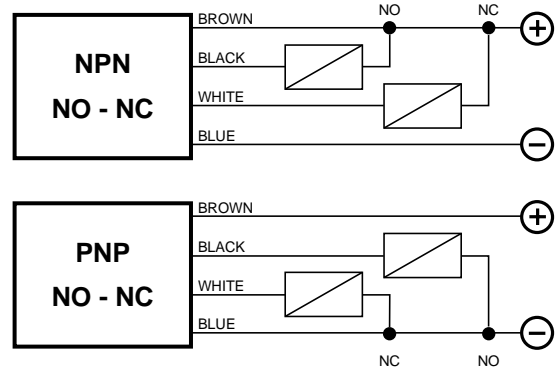
**CS Series**



### Identification code



### Wiring diagrams



	SHIELDED	NOT SHIELDED
NOMINAL SWITCHING DISTANCE (S <sub>n</sub> )	1±20 mm	1±25 mm
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	Depending on the sensing distance	
MAX. CURRENT OUTPUT	200 mA	
ABSORPTION AT 24 VDC	≤ 20 mA	
VOLTAGE DROP (Sensor ON)	≤ 1.8 V (I = 100 mA)	
OPERATION LED	Yellow	
SENSITIVITY ADJUSTMENT	Trimmer 9 turns	
SWITCHING FREQUENCY	10 Hz	
START UP DELAY	≤ 100 mS	
REPEATABILITY (at even temperature)	≤ 5%	
SHORT CIRCUIT PROTECTION	Present	
ELECTRIC PROTECTIONS	Against polarity reversal - inductive loads	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	4 x 0.25 mm <sup>2</sup>	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT (Approximately)	250 g	

### Sensitivity adjustment

The sensitivity adjustment must be done when the sensor is installed in a definite and steady position.

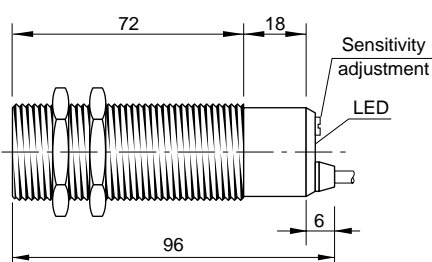
The regulation must be done in a position half way between minimum and maximum, because, being air dielectric, a strong humidity variation could cause, if the regulation is very light, nuisance tripping.

The sensing distance of the sensor depends on the kind of material to detect and on its dimensions (see table about reduction factors).

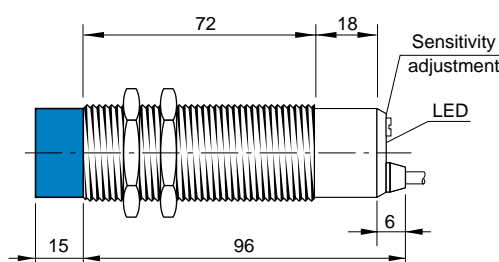
The distance could change according to temperature variations. To increase the sensitivity twist the trimmer clock-wise, to decrease do it anti clock-wise.

### Models with cable output dimensions (mm)

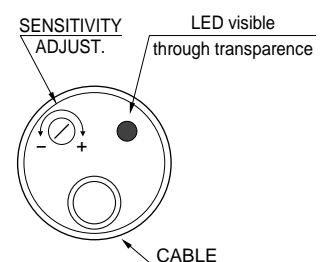
SHIELDED MODELS



NOT SHIELDED MODELS



Ø 30 BACK VIEW





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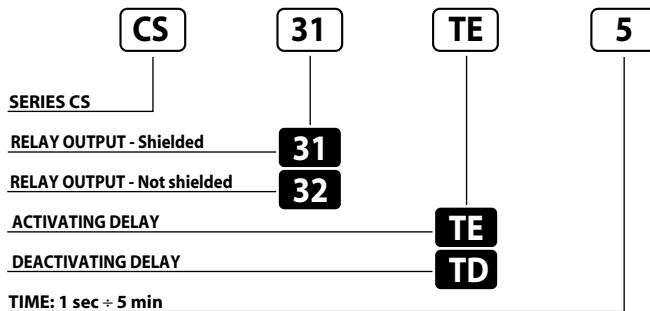
## AMPLIFIED CAPACITIVE SENSORS IN METAL HOUSING 18÷230 VAC-DC WITH TIMER RELAY OUTPUT

- **Wide input voltage, 18-230 VA/DC**
- **Relay SPDT output: 3A@30VAC, 1A@220VAC**
- **Timer, adjustable 1sec - 5 min**
- **Adjustable range**
- **High noise immunity**
- **High temperature stability**

## CS Series

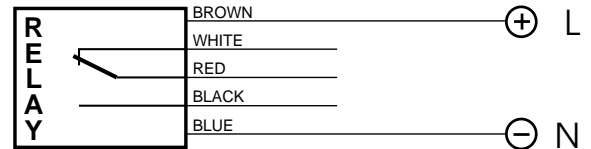


### Identification code



	SHIELDED	NOT SHIELDED
NOMINAL SWITCHING DISTANCE (Sn)	1 ÷ 20 mm	2 ÷ 30 mm
NOMINAL VOLTAGE	18 ÷ 230 VAC-DC (-15/+10%)	
NET FREQUENCY	50 ÷ 60 Hz	
HYSTERESIS	Depending on the sensing distance	
OUTPUT	Relay (10 x106 ops. min.)	
MAX. CURRENT OUTPUT	3A 30VAC - 1A 220VAC (90 W, 360 VA)	
ABSORPTION	2.5 VA	
OPERATION LED	Yellow	
SENSITIVITY ADJUSTMENT	Trimmer 9 turns	
START UP DELAY	≤ 300 mS	
SWITCHING FREQUENCY	10 Hz	
REPEATABILITY (at even temperature)	≤ 5%	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 65	
CABLE LENGTH	2 m	
CABLE SECTION	6 x 0.30 mm <sup>2</sup>	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT (Approximately)	250 g	

### Wiring diagrams



### Sensitivity adjustment

The sensitivity adjustment must be done when the sensor is installed in a definite and steady position. The regulation must be done in a position half way between minimum and maximum, because, being air dielectric, a strong humidity variation could cause, if the regulation is very light, nuisance tripping.

The sensing distance of the sensor depends on the kind of material to detect and on its dimensions (see table about reduction factors).

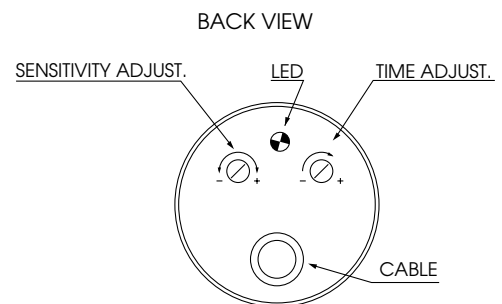
The distance could change according to temperature variations. To increase the sensitivity twist the trimmer clock-wise, to decrease do it anti clock-wise.

### Time delay

To regulate the sensitivity of these models, reset the time delay trimmer before.

The available range of delay is :

1 SEC. ÷ 5 MIN.



### Models with cable output dimensions (mm)

