



# Amplified Capacitive Sensors Ø 18

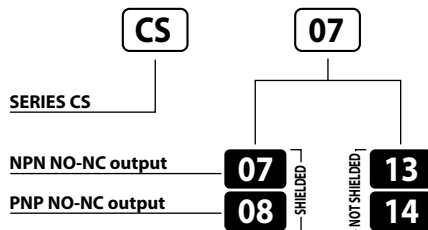
## AMPLIFIED CAPACITIVE SENSORS IN METAL HOUSING 12÷30 VDC NPN OR PNP OUTPUT

- 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

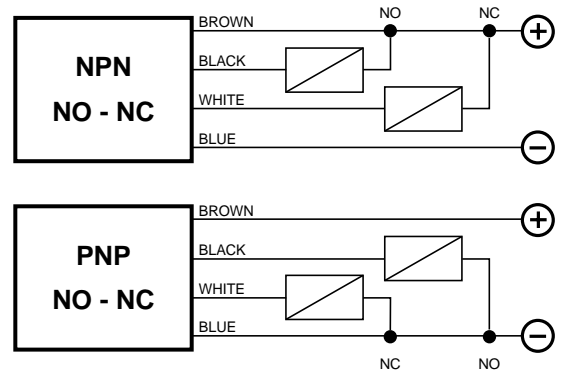
**CS Series**



### Identification code



### Wiring diagrams



	SHIELDED	NOT SHIELDED
NOMINAL SWITCHING DISTANCE (S <sub>n</sub> )	1÷5 mm	1÷10 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)	160 g	

### Sensitivity adjustment

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

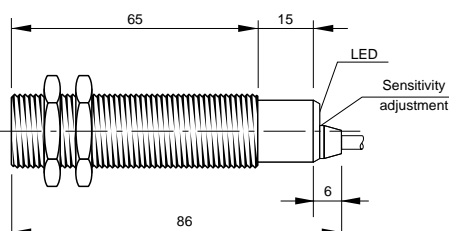
The regulation must be done in a position half way between minimum and maximum, because, being air dielectric, a strong humidity variation could cause, if the regulation is very light, nuisance tripping.

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

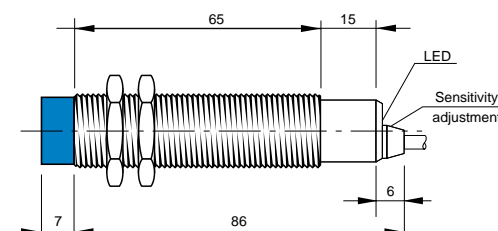
The distance could change according to temperature variations. To increase the sensitivity twist the trimmer clock-wise, to decrease do it anti clock-wise.

### Models with cable output dimensions (mm)

SHIELDED MODELS



NOT SHIELDED MODELS



Ø 18 BACK VIEW

