

# Amplified Capacitive Sensors Ø 30





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

- Wide imput voltage, 18-230 V AC/DC
- Relay SPDT output: 3A@30VAC, 1A@220VAC
- Models with 9-turn pot
- Adjustable range
- High noise immunity
- High temperature stability

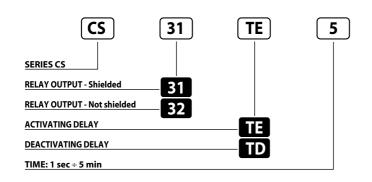
### **CS Series**







#### **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 mm2                        |              |  |
| HOUSING MATERIAL                    | Nickel-plated brass                 |              |  |
| WEIGHT (Approximately)              | 250 g                               |              |  |

#### **Wiring diagrams**

|            |          | BROWN | $\bigcirc$ |    |
|------------|----------|-------|------------|----|
| <u>P</u> _ |          | WHITE |            | L  |
| E ⊀        | <u> </u> | RED   |            |    |
| Iኢ .       |          | BLACK |            |    |
| \$ [       |          | BLUE  |            | ΝI |
|            |          |       | 9          | IΝ |

#### **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.

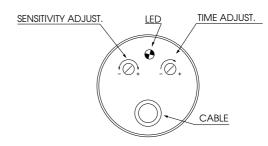
#### **Time delay**

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

The available range of delay is:

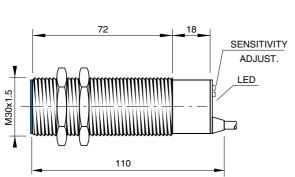
1 SEC. ÷ 5 MIN.

#### **BACK VIEW**



#### Models with cable output dimensions (mm)

## SHIELDED



#### NOT SHIELDED

