

# Proximity Sensors Capacitive Thermoplastic Polyester Types VC11RT, VC12RT, VC12RN

CARLO GAVAZZI



- Capacitive level sensor for solid, fluid or granulated substances
- Adjustable sensing distance: 4-12 mm
- VC11/12RT: With adjustable time delay
- VC12RN: Without time delay

## Product Description

Capacitive sensor in thermoplastic polyester for mounting in PG 36 screw gland. Available with adjustable sensing distance and with/without built-in time delay

(ON or OFF delay). The relay output ensures that the load can be driven directly. Excellent for use in the agriculture area (detection of grains, fluids etc.).

## Ordering Key

**VC11RT12010M**

Type \_\_\_\_\_  
Time delay \_\_\_\_\_  
Voltage \_\_\_\_\_  
Time \_\_\_\_\_

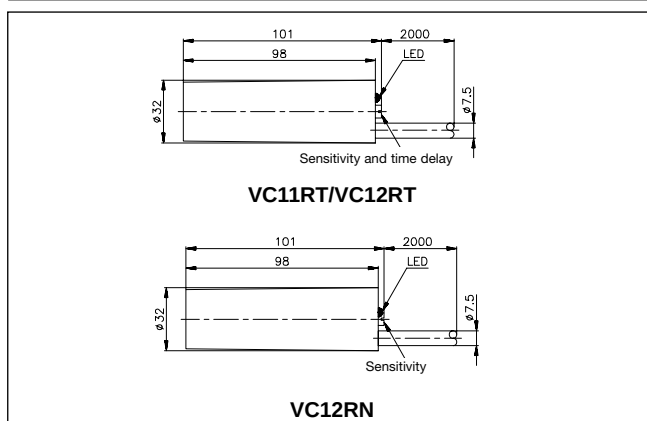
## Type Selection

| Supply voltage | Ordering no.<br>With ON delay | Ordering no.<br>With OFF delay | Ordering no.<br>Without time delay |
|----------------|-------------------------------|--------------------------------|------------------------------------|
| 120 VAC        | VC 11RT12010M                 | VC 12RT12010M                  | VC 12RN120                         |
| 230 VAC        | VC 11RT23010M                 | VC 12RT23010M                  | VC 12RN230                         |
| 24 VAC/DC      | VC 11RT92410M                 | VC 12RT92410M                  | VC 12RN924                         |

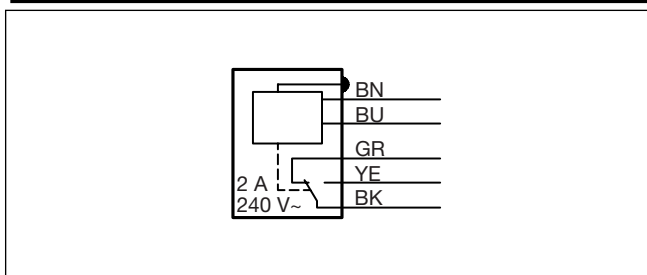
## Specifications

|                                  |                                                                     |
|----------------------------------|---------------------------------------------------------------------|
| <b>Rated operational voltage</b> | 120 VAC, 47-63 Hz<br>230 VAC, 47-63 Hz<br>24 VAC/DC, 47-63 Hz (VAC) |
| <b>Consumption</b>               | Max. 1,5 W                                                          |
| <b>Sensing distance</b>          | 4-12 mm, adjustable                                                 |
| <b>Hysteresis</b>                | 1,5 mm at 7 mm sensing dist.                                        |
| <b>Operating frequency</b>       | 1 Hz                                                                |
| <b>Output</b>                    | Relay SPDT, 2 A/240 VAC                                             |
| <b>Indication for output ON</b>  | LED, yellow                                                         |
| <b>Time delay</b><br>VC11/12RT   | 1 s - 10 m                                                          |
| <b>Environment</b>               |                                                                     |
| Degree of protection             | IP 67                                                               |
| Operating temperature            | -20° to +70°C (-4° to +158°F)                                       |
| Storage temperature              | -40° to +85°C (-40° to +185°F)                                      |
| <b>Housing material</b>          | Thermoplastic polyester                                             |
| <b>Cable</b>                     | PVC, 2 m                                                            |
| <b>Approvals</b>                 | CSA (only with OFF delay)                                           |
| <b>CE-marking</b>                | Yes                                                                 |

## Dimensions



## Wiring Diagram





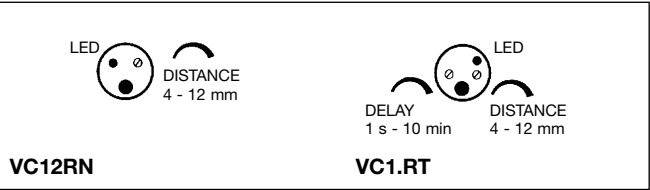
Mode of Operation

**VC12RN** (See operation diagram). Power supply is applied to the sensor (brown and blue cables). The relay operates (connection between black and yellow cables) and remains ON until the sensor is activated. After activation of the sensor the relay releases (connection between black and grey cables.)

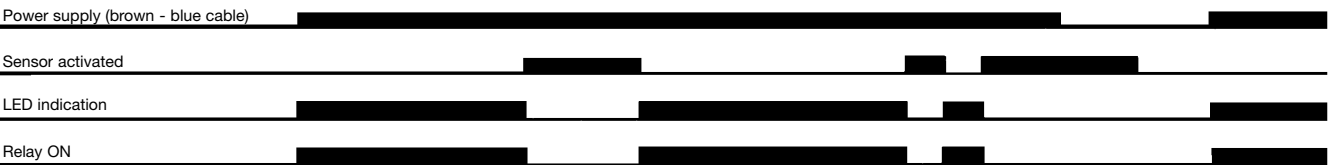
**VC12RT** (See operation diagram). Power supply is applied to the sensor (brown and blue cables) and time measurement starts. When the set time has expired (0-10 min.) the relay operates (connection between black and yellow cable) and remains connected until the sensor is activated. After activation of the sensor the relay releases (connection between black and grey cable). As soon as the sensor is unactivated again the time measurements of the set time starts.

**VC11RT** (See operation diagram). Power supply is applied to the sensor (brown and blue cables). When sensor is not activated, the relay operates (connection between black and yellow cables) and LED lights. When sensor is activated the time measurement starts and LED flashes. After expiration of the set time (0-10 min.), the relay releases (connection between black and grey cables) and LED turns off. The relay remains released until sensor is activated again.

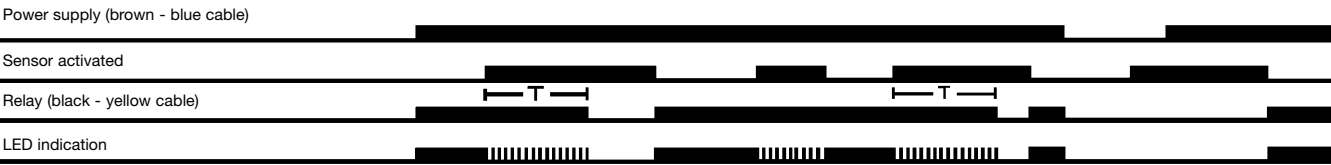
Adjustment



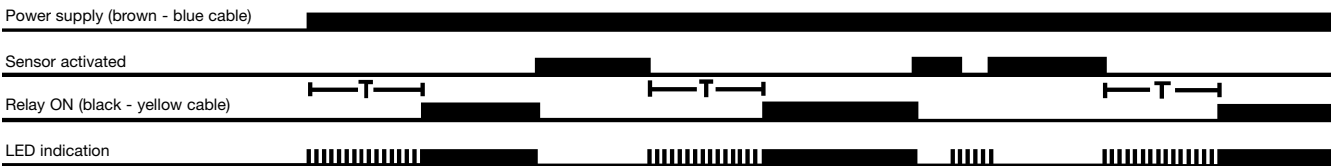
Operation Diagrams



VC12RN

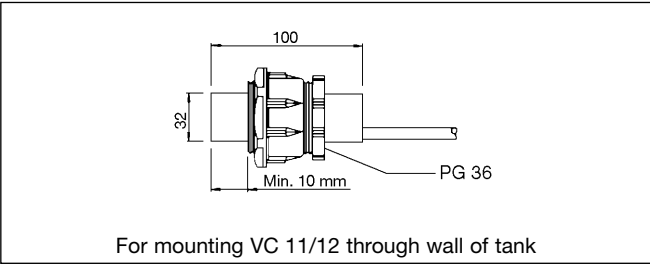


VC11RT



VC12RT

Installation Hint



Delivery Contents

- Capacitive switch: VC11/12
- Screwdriver
- **Packaging:** Plastic bag
- User manual