

# Proximity Sensors Capacitive Level Detector, Flat Pack Polycarbonate Housing Type VC 5510

CARLO GAVAZZI



- Adjustable sensing distance 2-10 mm
- Rated operational voltage: 5 to 30 VDC
- Output: DC 100 mA, NPN or PNP
- Output: ON/OFF delay or no delay
- Make or break switching function
- LED indication when activated
- 1.5 m PVC cable
- IP65

## Product Description

Capacitive level detector in flat pack housing, size 35 x 55 x 15 mm. Easy mounting with two M4 screws. Typical applications are in whirlpools (jacuzzis) for switching ON/

OFF the heating element, starting and stopping the air pump, controlling the level of the water, the level of the disinfection fluid etc.

## Ordering Key

**VC 55 10 NNOPT**

Type \_\_\_\_\_  
Housing \_\_\_\_\_  
Range \_\_\_\_\_  
Output type \_\_\_\_\_  
Housing material \_\_\_\_\_  
Output ON/OFF delay \_\_\_\_\_

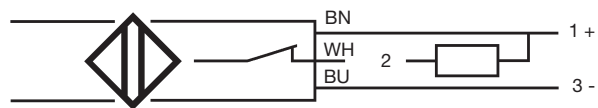
## Type Selection

| Housing dimensions<br>W x H x D | Rated operating dist. (S <sub>n</sub> ) | Output       | Ordering no.<br>NPN<br>Make switching | Ordering no.<br>NPN<br>Break switching | Ordering no.<br>PNP<br>Make switching | Ordering no.<br>PNP<br>Break switching |
|---------------------------------|-----------------------------------------|--------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|
| 35 x 55 x 15                    | 10 mm                                   | No delay     | VC 5510 NNOP                          | VC 5510 NNCP                           | VC 5510 PNOP                          | VC 5510 PNCP                           |
| 35 x 55 x 15                    | 10 mm                                   | ON/OFF delay | VC 5510 NNOPT                         | VC 5510 NNCPT                          | VC 5510 PNOPT                         | VC 5510 PNCPT                          |

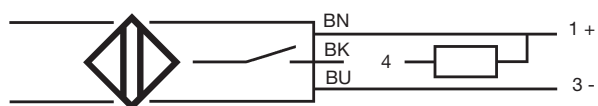
## Specifications

|                                                                |                                                              |                                             |                                                       |
|----------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------|
| <b>Rated operation dist. (S<sub>n</sub>)</b>                   | 2-10 mm<br>factory set at 10 mm                              | <b>Delay</b><br>xNxP                        | <b>ON</b><br>t <sub>ON</sub> < 40 ms                  |
| <b>Sensitivity</b>                                             | Adj. single turn pot. meter                                  | <b>OFF</b><br>xNxPT                         | t <sub>OFF</sub> < 40 ms                              |
| <b>Effective operating dist. (S<sub>r</sub>)</b>               | 0.9 x S <sub>n</sub> ≤ S <sub>r</sub> ≤ 1.1 x S <sub>n</sub> | <b>ON</b>                                   | 1s < t <sub>ON</sub> < 5 s (typ. 3 s)                 |
| <b>Usable operating dist. (S<sub>u</sub>)</b>                  | 0.8 x S <sub>r</sub> ≤ S <sub>u</sub> ≤ 1.2 x S <sub>r</sub> | <b>OFF</b>                                  | 1s < t <sub>OFF</sub> < 5 s (typ. 3 s)                |
| <b>Assured operating dist. (S<sub>a</sub>)</b>                 | 0 ≤ S <sub>a</sub> ≤ 0.81 S <sub>n</sub>                     | <b>Indication when activated</b>            | LED, red                                              |
| <b>Hysteresis (H)</b>                                          | 3-20% of sensing dist.                                       | <b>Environment</b><br>Degree of protection  | IP 65                                                 |
| <b>Rated operational volt. (U<sub>e</sub>)</b>                 | 5 to 30 VDC<br>(ripple included)                             | <b>Temperature</b><br>Operating temperature | -0° to +50°C (+32° to +122°F)                         |
| <b>Ripple</b>                                                  | ≤ 10%                                                        | Storage temperature                         | -30° to +80°C (-22° to +176°F)                        |
| <b>Rated operational current (I<sub>e</sub>)</b><br>Continuous | ≤ 100 mA                                                     | <b>Housing material</b>                     | PC/ABS, grey                                          |
| <b>No-load supply current (I<sub>0</sub>)</b>                  | ≤ 10 mA                                                      | <b>Connection</b><br>Cable                  | 1.5 m, 3 x 0.3 mm <sup>2</sup><br>grey PVC, oil proof |
| <b>Voltage drop (U<sub>d</sub>)</b>                            | ≤ 1.5 VDC at max. load                                       | <b>Weight</b>                               | 40 g                                                  |
| <b>Power ON delay</b><br>xNxP<br>xNxPT                         | Max. 40 ms<br>Max. 5 s                                       | <b>Approvals</b>                            | UL                                                    |
| <b>Frequency of operating cycles</b><br>xNxP<br>xNxPT          | ≥ 15 Hz<br>> 0.1 Hz (depending upon delay time)              | <b>CE-marking</b>                           | Yes                                                   |

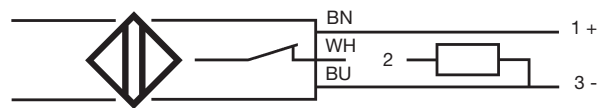
## Wiring Diagrams



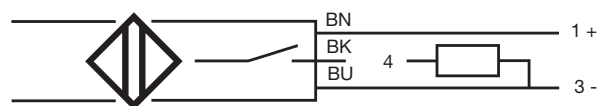
VC 5510 NNCP (T)



VC 5510 NNOP (T)

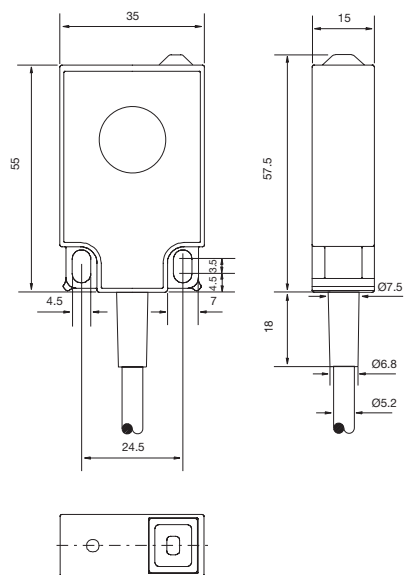


VC 5510 PNCP (T)



VC 5510 PNOP (T)

## Dimensions



## Delivery Contents

- Capacitive switch: VC 5510 ....
- **Packaging:** plastic bag