

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Capacitive Level Detector For Plastic & Rubber Thermoplastic Polyester Housing Types CA, M18, M30, DC, Teach-in

TRIPLESHIELD™

CARLO GAVAZZI



- Primary designed for plastic and rubber applications
- For liquid and dry bulk material detection
- Featuring **TRIPLESHIELD™** Sensor Protection
- Teach-in of sensing distance via push-button or COM-input
- Automatic detection of NPN or PNP load
- Selectable make or break switching by means of Teach-in function
- Protection: Short-circuit, transients and reverse polarity
- Humidity compensation
- Alarm output for unsafe operation or heavy dirt build-up on sensing surface
- 5 years of warranty

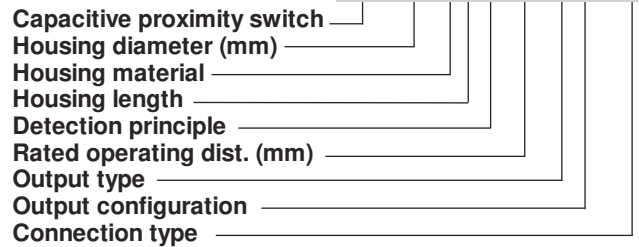
Product Description

Capacitive level detector with specialized and optimized features for level detection in plastic and rubber applications. The adjustment is easy to change by means of the single-step teach-in function. The sensing face (flush

mounted) can withstand temperatures up to 120°C. 3-wire DC output with selectable make (NO) or break (NC) switching and NPN Alarm. Grey polyester housing with 2 m PVC cable or M12 plug.

Ordering Key

CA18CLL12BPM1



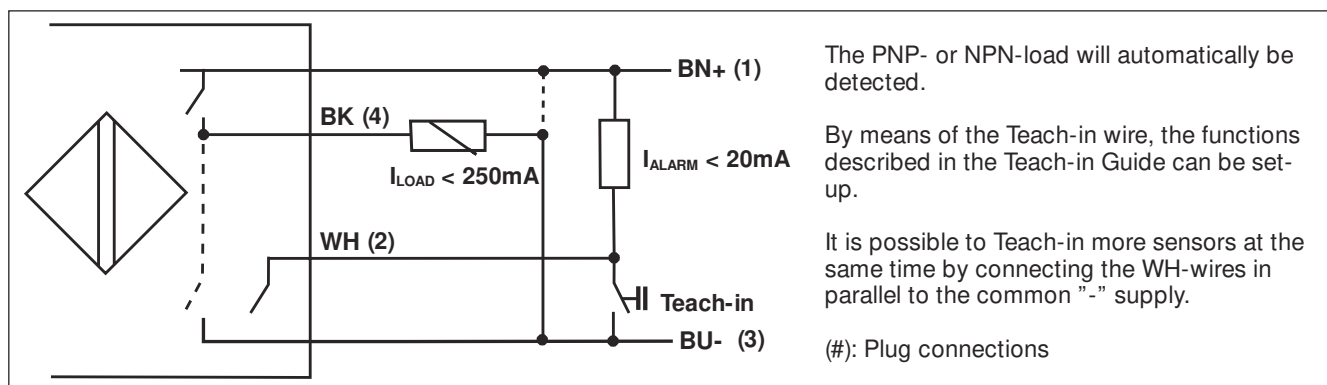
Type Selection

| Housing diameter | Ordering no. Cable | Ordering no. Plug |
|------------------|--------------------|-------------------|
| M18 | CA18CLL12BP | CA18CLL12BPM1 |
| M30 | CA30CLL30BP | CA30CLL30BPM1 |

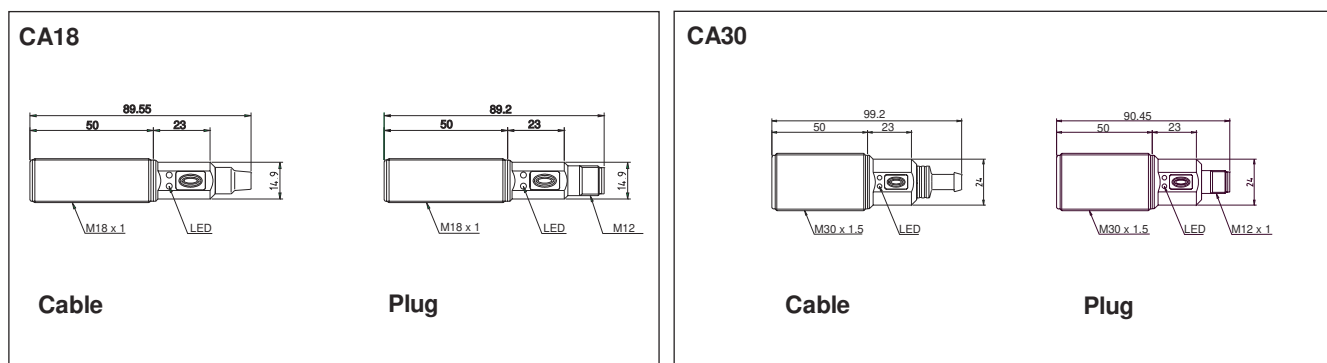
Specifications

| | | | | |
|--------------------------------------------------|---------------------------------------------|---------------------------|----------------------------------|-------------------------------------|
| Sensitivity | Adjustable (Teach-in) | Environment | Degree of protection | IP 68 |
| Repeat accuracy (R) | ≤ 5% | | Operating temperature | -20° to +85°C (-4° to +185°F) |
| Hysteresis (H) | 5 - 10% | | Max. temperature on sensing face | 120°C (248°F) |
| Rated operational volt. (U_B) | 10 to 40 VDC (ripple incl.) | | Storage temperature | -40° to +85°C (-40° to +185°F) |
| Ripple | ≤ 10% | Housing material | Body | Grey, thermoplastic polyester |
| Rated operational current (I_o) | ≤ 250 mA (continuous) | | Cable end | Polyester, softened |
| No-load supply current (I_o) | ≤ 12 mA | | Nuts | Black, PA12 Grilamid |
| Voltage drop (U_d) | ≤ 2.5 VDC @max. load | Connection | Cable | Grey, 2 m, 4 x 0.25 mm ² |
| Protection | Short-circuit, reverse polarity, transients | | Plug (M1) | Oil proof, PVC |
| TRIPLESHIELD™ protection-EMC | | | Cable for plug (M1) | M12 x 1 |
| IEC 1000-4-2/EN 61000-4-2 | 30 kV | | | CON.1A-series |
| IEC 1000-4-3/EN 61000-4-3 | > 15 V/m | Weight | | |
| IEC 1000-4-4/EN 61000-4-4 | 3 kV | Cable version - M18 / M30 | | 110 g/160 g |
| IEC 1000-4-6/EN 61000-4-6 | > 10 V _{rms} | Plug version - M18 / M30 | | 30 g/70 g |
| Frequency of operating cycles (f) | 5 Hz | Approvals | | UL, CSA |
| Indication | | CE-marking | | Yes |
| For output ON | LED, yellow | | | |
| For safe/unsafe | LED, green | | | |

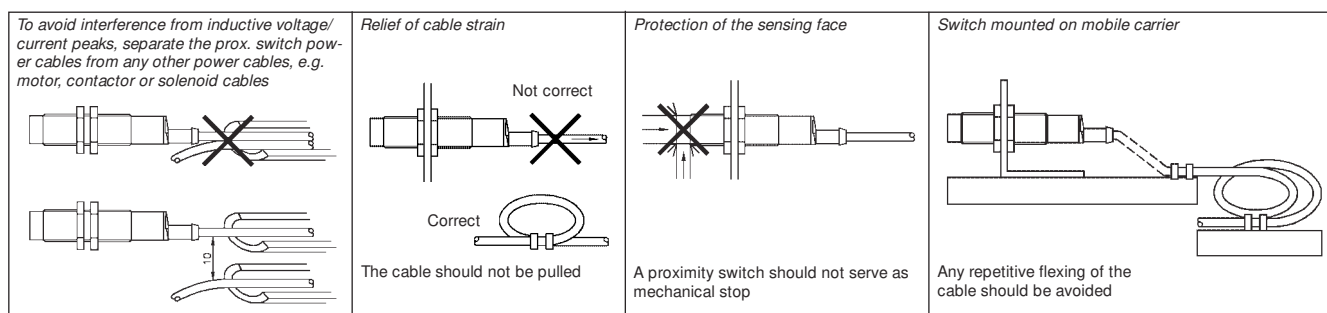
Wiring Diagram



Dimensions



Installation Hints



Delivery Contents

- Capacitive switch: CA..CLL..BP.
- **Packaging:** Cardboard box
- Installation & Adjustment Guide (MAN CAP ENG/GER)

Accessories

- Plugs CON.1A.. series.

For further information please refer to "Accessories."

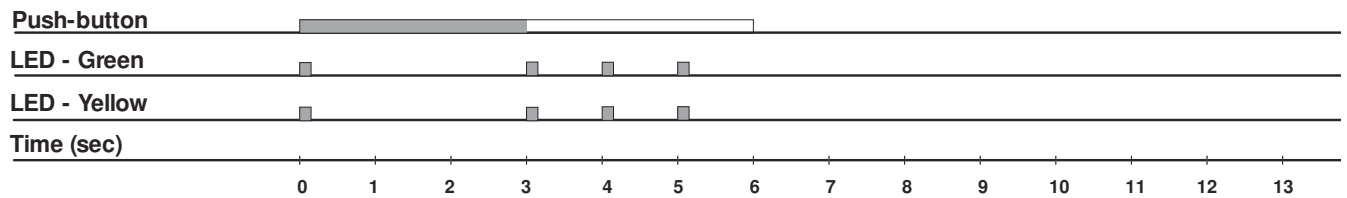


Teach-in Guide

Adjustment - wall

No target present - tank empty

Press push-button >3 seconds until LED's are flashing one time per second. The surroundings will be calibrated when the push-button is released during the following 3 seconds



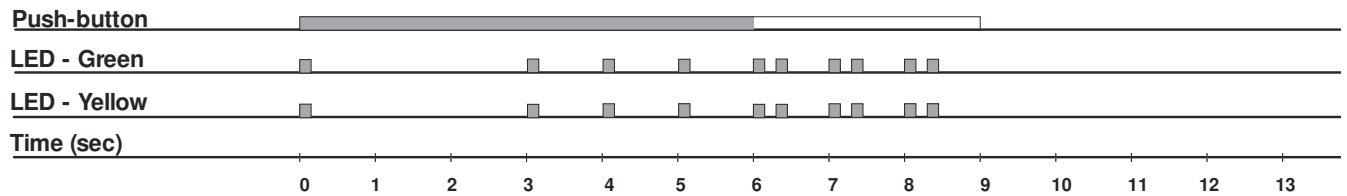
The sensor will calculate a switch-point by itself. No further calibration is needed.

Adjustment - object

Target present - tank full

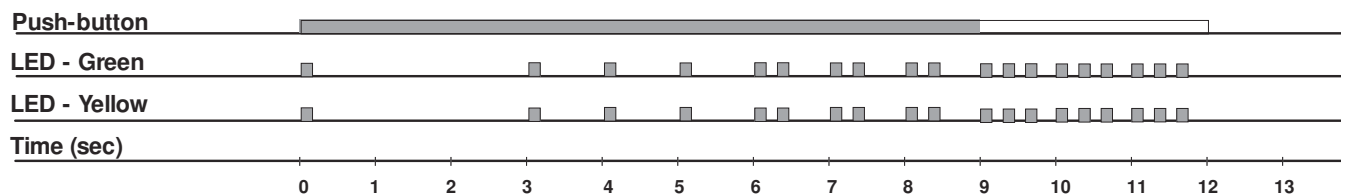
The self-calculated switch-point can be changed by means of the Teach-in function for "Target present".

Press push-button >6 seconds until LED's are flashing two times per second. The object will be calibrated when the push-button is released during the following 3 seconds



Adjustment - NO - NC

Press push-button >9 sec. until LED's are flashing three times per second. The status of NO-NC will toggle when the push-button is released during the following 3 seconds



Releasing the push-button after 12 sec. returns the sensor to factory settings.