

# 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**

Capacitive proximity switch  
 Housing diameter (mm) \_\_\_\_\_  
 Housing material \_\_\_\_\_  
 Housing length \_\_\_\_\_  
 Detection principle \_\_\_\_\_  
 Rated operating dist. (mm) \_\_\_\_\_  
 Output type \_\_\_\_\_  
 Output configuration \_\_\_\_\_  
 Connection type \_\_\_\_\_

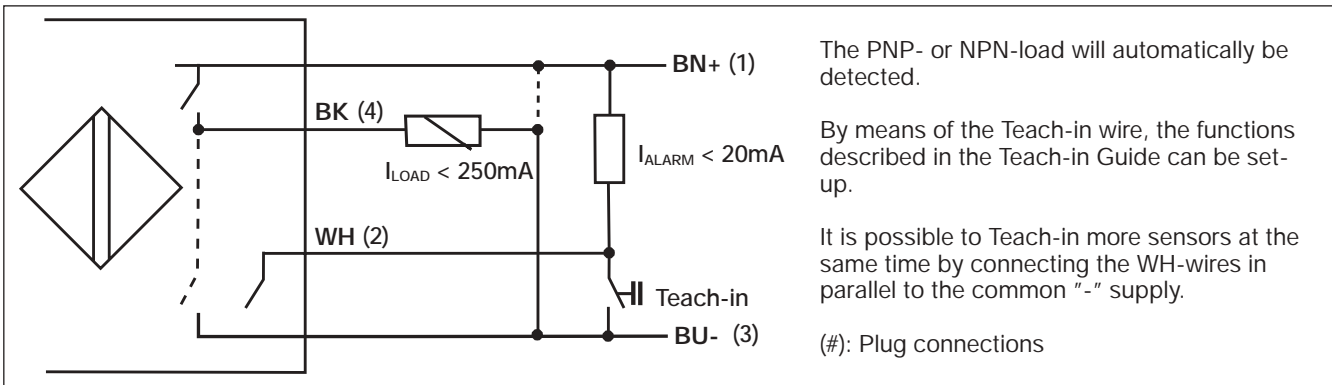
## Type Selection

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

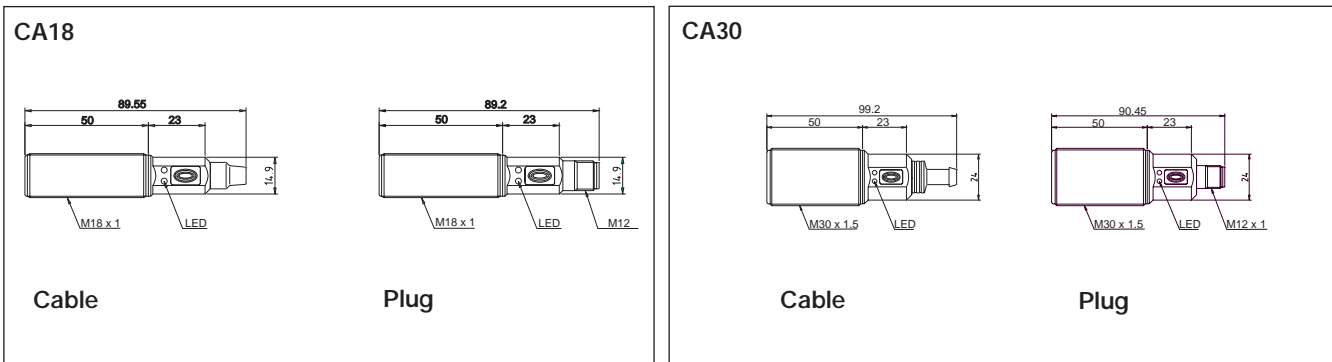
## Specifications

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

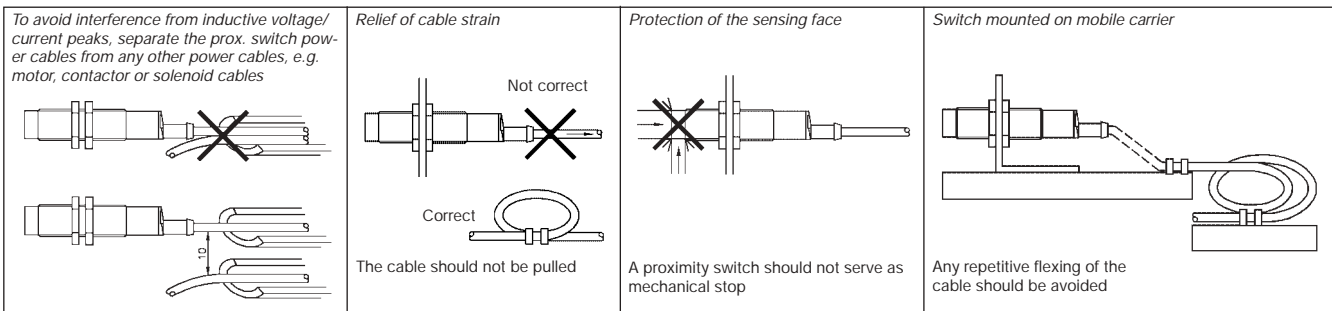
## Wiring Diagram



## 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."