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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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Proximity Sensors Capacitive Thermoplastic Polyester Housing Types CA, M18, M30, DC, Teach-in

TRIPLESHIELD™

CARLO GAVAZZI



- Featuring **TRIPLESHIELD™** Sensor Protection
- Sensing distance: 0.5 - 12 mm (M18) and 1.0 - 30 mm (M30)
- 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
- 5 years of warranty

Product Description

Capacitive proximity switches with a sensing distance of either 8 mm flush mounted in metal or 12 mm non-flush mounted for the M18 version, and either 16 mm flush mounted in metal or 30 mm non-flush mounted for the M30 version. The

switching points can be altered by means of the Teach-in function. 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

CA18CLC12BPM1

Capacitive proximity switch	CA
Housing diameter (mm)	18
Housing material	C
Housing length	12
Detection principle	L
Rated operating dist. (mm)	B
Output type	M
Output configuration	P
Connection type	1

Type Selection

Housing diameter	Rated operating distance (S _r)	Ordering no. Cable	Ordering no. Plug
M18	12 mm	CA18CLC12BP	CA18CLC12BPM1
M30	30 mm	CA30CLC30BP	CA30CLC30BPM1

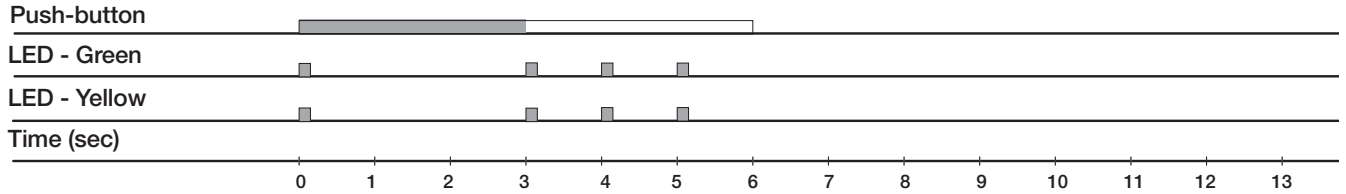
Specifications

Sensing range (S_d) CA18CLC12	0.5 - 12 mm factory set at 8 mm	Frequency of operating cycles (f)	15 Hz
CA30CLC30	1.0 - 30 mm factory set at 15 mm	Indication For output ON For safe/unsafe	LED, yellow LED, green
Sensitivity	Adjustable (Teach-in)	Environment Degree of protection Operating temperature Storage temperature	IP 68 -20° to +85°C (-4° to +185°F) -40° to +85°C (-40° to +176°F)
Effective operating dist. (S_r)	$0.9 \times S_n \leq S_r \leq 1.1 \times S_n$	Housing material Body Cable end Nuts	Grey, thermoplastic polyester Polyester, softened Black, PA12 Grilamid
Usable operating dist. (S_u)	$0.8 \times S_r \leq S_u \leq 1.2 \times S_r$	Connection Cable	Grey, 2 m, 4 x 0.25 mm ² Oil proof, PVC
Repeat accuracy (R)	≤ 5%	Plug (M1) Cable for plug (M1)	M12 x 1 CON.1A-series
Hysteresis (H)	Depending on Teach-in	Weight Cable version - M18 / M30 Plug version - M18 / M30	110 g/160 g 30 g/70 g
Rated operational volt. (U_B)	10 to 40 VDC (ripple incl.)	Approvals	UL, CSA
Ripple	≤ 10%	CE-marking	Yes
Rated operational current (I_e)	≤ 250 mA (continuous)		
No-load supply current (I_o)	≤ 12 mA		
Voltage drop (U_d)	≤ 2.5 VDC @ max. load		
Protection	Short-circuit, reverse polarity, transients		
TRIPLESHIELD™ protection-EMC IEC 1000-4-2/EN 61000-4-2 IEC 1000-4-3/EN 61000-4-3 IEC 1000-4-4/EN 61000-4-4 IEC 1000-4-6/EN 61000-4-6	30 kV > 15 V/m 3 kV > 10 V _{rms}		

Teach-in Guide

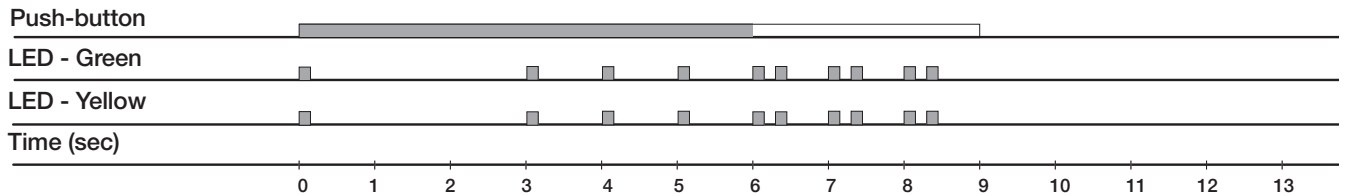
Adjustment - Background No target present

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



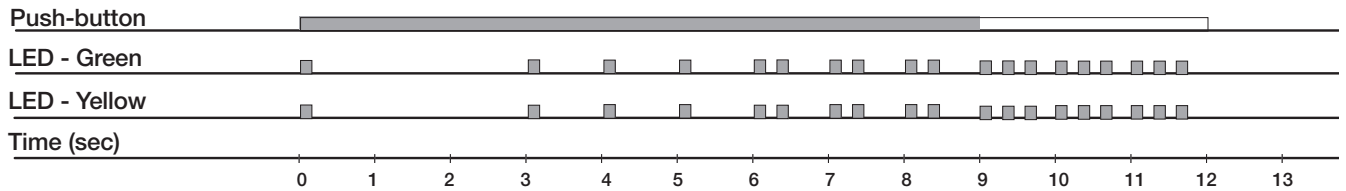
Adjustment - Object Target present

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.

Wiring Diagrams

