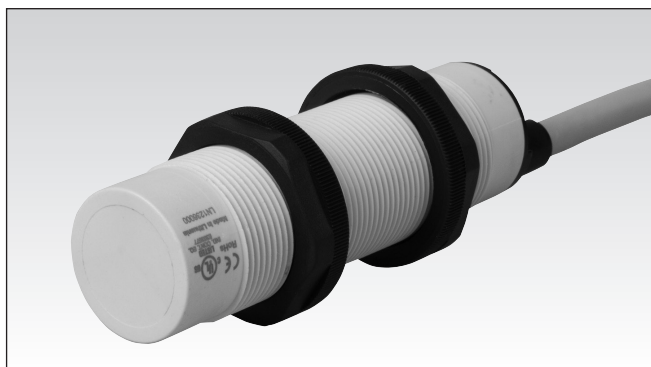


Proximity Sensors Capacitive Thermoplastic Polyester Types CA30CLN12Mxxxx

CARLO GAVAZZI



- Level sensor for solid, fluid or granulated substances
- Adjustable sensing distance: 4-12 mm
- Multi voltage supply: 20.4 to 255 VAC/DC
- SPDT relay output
- Time delay on operate or release
- Time delay options up to 10 minutes
- CA30..MU/CA30..MV: With adjustable time delay
- CA30CLN12MT: Without time delay
- Cable versions

Product Description

Capacitive sensor in M30 thermoplastic polyester housing for mounting with 2 nuts. 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 agricultural sector (detection of grains, fluids etc.).

Ordering Key

CA30CLN12MU10M

Type _____
Time delay options _____
Voltage _____
Time delay _____

Type Selection

Supply voltage	Ordering no. With ON delay	Ordering no. With OFF delay	Ordering no. Without time delay
24- 230 V AC/DC	CA30CLN12MU10M	CA30CLN12MV10M	CA30CLN12MT

Specifications

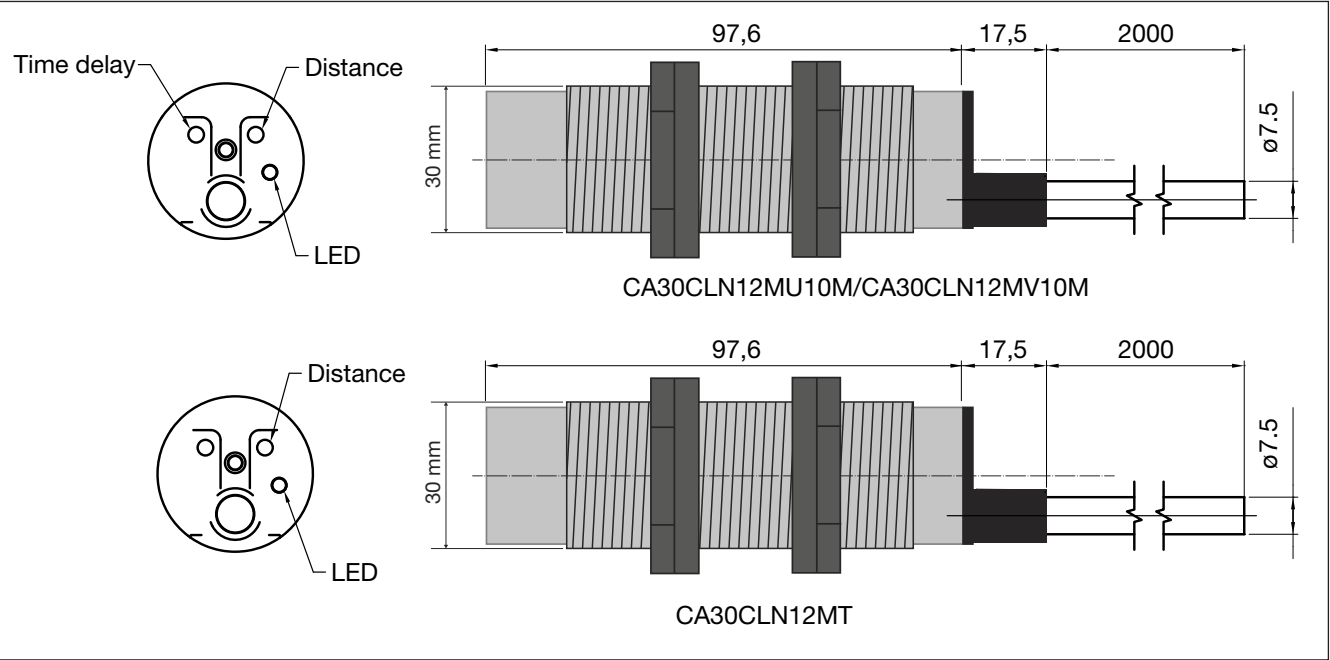
Rated operating distance (S_n)	Up to 12 mm, reference target 30 x 30 mm ST37.1 mm thick, grounded	Response time OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 500 ms ≤ 500 ms
Sensing distance	4-12 mm, adjustable Factory set at 7 mm	Power ON delay (t_v)	≤ 200 ms
Sensing distance adjustment	Multiturn, 15 turns adjustment steps	Output function	SPDT relay
Temperature drift	0.8 x S _r ≤ S _u ≤ 1.2 x S _r	Output switching function	N.O. and N.C.
Hysteresis (H)	3 to 20%	Indication Output ON Time Delay	Yellow LED LED flashing depend on time delay
Rated operational volt. (U_B)	20.4 to 255 VAC/DC (ripple included)	Output Time delay Delay on operate, adjustment CA30CLN12MU10M Delay on release, adjustment CA30CLN12MV10M No time delay CA30CLN12MT	Factory settings 0 sec. 1 sec. - 10 min. 1 sec. - 10 min. no delay
Rated supply frequency	47 to 63 Hz	Time delay adjustment	Multiturn, 15 turns
Rated operational power	0.5 to 2.5 VA	Environment Installation category	III (IEC 60664/60664A; 60947-1)
Output	2 A Relay SPDT@240 VAC AC12 2 A AC140 2 A DC12 2 A DC13 2 A	Pollution degree	3 (IEC 60664/60664A; 60947-1)
Mechanical life typically	15x10 ⁶ operations	Degree of protection	IP 67, (IEC 60529; 60947-1)
Electrical lifetime	1x10 ⁵ operations @ 2A/240VAC		NEMA 1, 2, 4, 4X, 5, 6, 6P, 12
Minimum operational current (I_m)	10 mA@12 VDC (i.e. Minimum relay current)		
Protection	Reverse polarity and transients		
Operating frequency (f)	≤ 1 Hz		



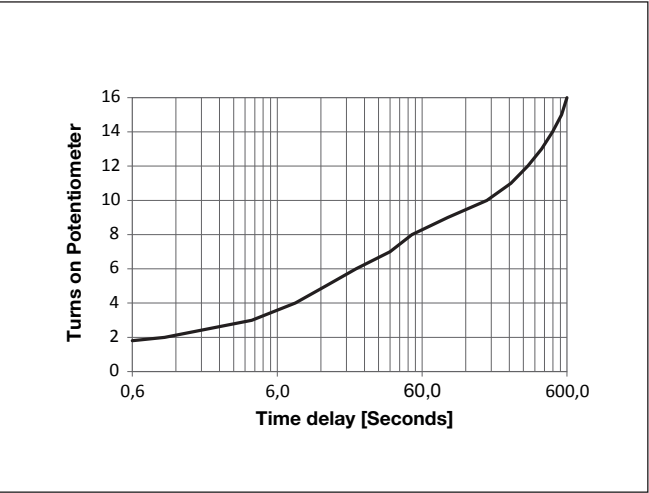
Specifications (cont.)

Ambient temperature Operating temperature		Housing material Body Backpart Trimmer	
Storage temperature		PBTP Arnite LCP Vectra	
-20° to +70°C (-4° to +158°F)		Connection Cable	
-40° to +85°C (-40° to +185°F)		PVC, grey, 2 m 5 x 0.75 mm², Ø = 7.5 mm	
Vibration	10 to 150 Hz, 1.0 mm/15 G (IEC 60068-2-6)	Weight	≤ 320 g
Shock	30 g / 11ms, 3 pos, 3 neg per axis (IEC 60068-2-6, 60068-2-32)	Approvals UL (overvoltage category II)	cULus (UL508+CSA)
Rated insulation voltage	≥ 250 VAC (rms)	CE-marking	Yes

Dimensions



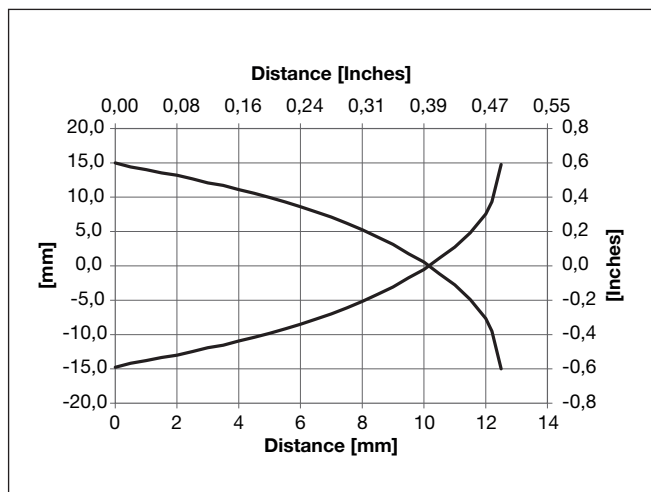
Trimmer VS Delaytime



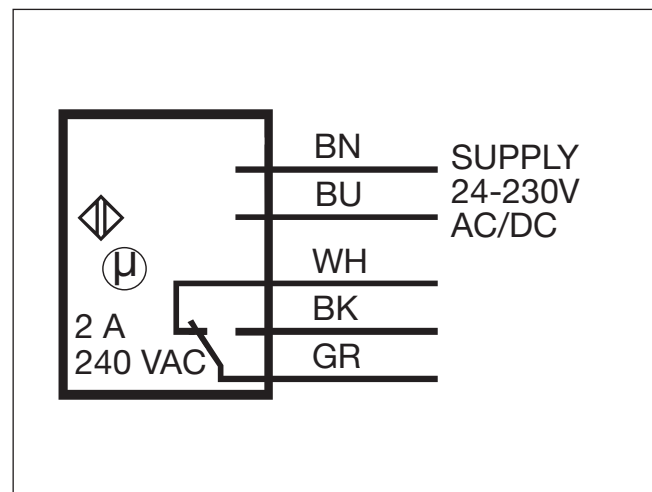
Trimmer VS Distance



Detection Diagram



Wiring Diagram



Mode of Operation

CA30CLN12MU10M (See operation diagram). Power supply is applied to the sensor (BN and BU wires). When the target is not present, the relay operates (connection between GR and BK wires) and LED lights. When the target is detected,

the time measurement starts and LED flashes. After expiration of the set time (0-10 min.), the relay releases (connection between GR and WH wires) and LED turns off. The relay remains released as long as the target is detected.

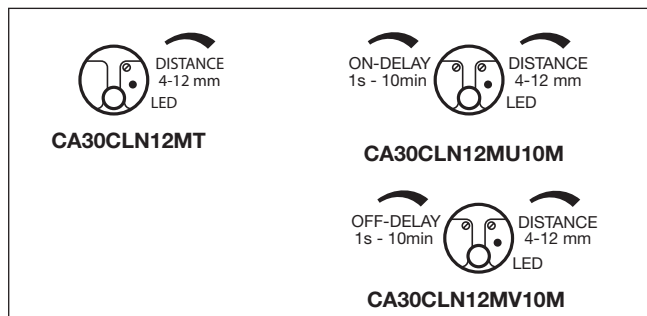
CA30CLN12MV10M (See operation diagram). Power supply is applied to the sensor BN and BU wires) and time measurement starts. When the set time has expired (0-10 min.) the relay operates (connection between GR and BK wires)

and remains connected until the target is detected. After activation of the sensor the relay releases (connection between GR and WH wires). As soon as the target is not present again the time measurements of the set time starts.

CA30CLN12MT (See operation diagram). Power supply is applied to the sensor (BN and BU wires). The relay operates (connection between GR and BK wires)

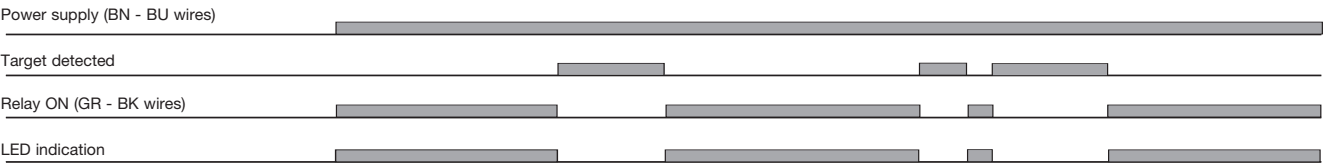
and remains ON until the target is detected. After activation of the sensor the relay releases (connection between GR and WH wires.)

Adjustment

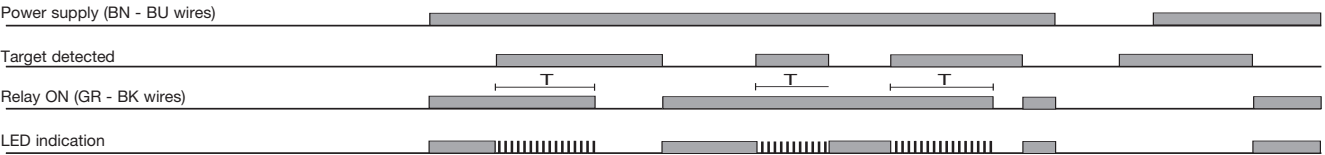




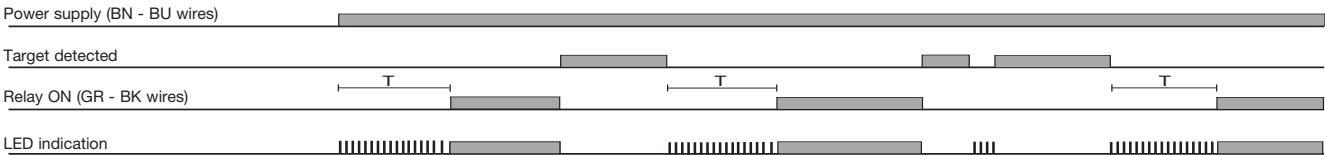
Operation Diagrams



CA30CLN12MT

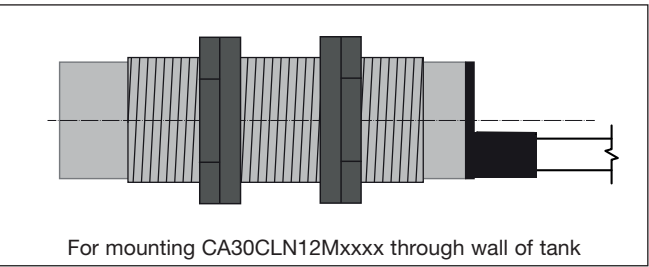


CA30CLN12MU10M



CA30CLN12MV10M

Installation Hint



Delivery Contents

- Capacitive switch: CA30CLN12Mxxxx
- Installation instruction
- 2 x M30 Nuts
- Screwdriver
- Packaging: Plastic bag