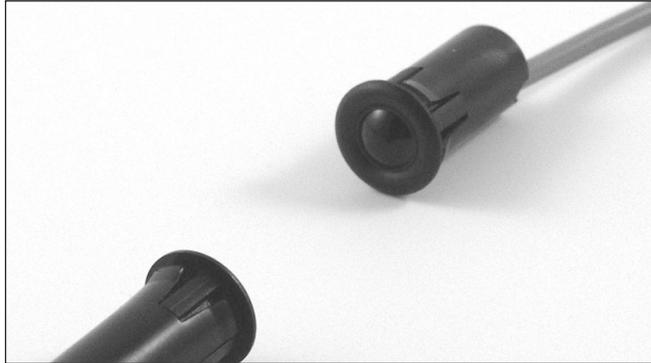


Photoelectrics Through-beam, Transistor Output Type PE12CNT15..

CARLO GAVAZZI



- Elevators, Escalators and Entrance control
- Range 15 m
- Modulated, infrared light
- Supply voltage: 10 to 30 VDC
- Output: 100 mA, NPN or PNP type
- Make or break switching
- LED for output indication or power supply
- Protection: reverse polarity, short circuit, transients
- Cable versions with or without connector
- Emitter mute and power adjustment



Product Description

The PE12CNT. is a family of general purpose Photoelectric sensors. They are specially designed for Elevators, Escalators, Entrance control to meet the requirements in the door market. The “snap-on”

housing can be mounted with a wall thickness from 0.6 mm to 2.25 mm. The emitter has a mute input to turn it off for evaluation of the sensor function. Available in 10-30 VDC version.

Ordering Key

PE12CNT15NO-C1

Type	_____
Housing style	_____
Housing size	_____
Housing material	_____
Sensor code	_____
Detection principle	_____
Sensing distance	_____
Output type	_____
Output configuration	_____
Connection type	_____
Cable connector	_____

Type Selection

Housing diameter	Range S _n	Con- nec- tor	Ordering no. Receiver NPN, NO	Ordering no. Receiver NPN, NC	Ordering no. Receiver PNP, NO	Ordering no. Receiver PNP, NC	Ordering no. Emitter
Ø 12 mm	15 m	NO	PE12CNT15NO	PE12CNT15NC	PE12CNT15PO	PE12CNT15PC	PE12CNT15
Ø 12 mm	15 m	YES	PE12CNT15NO-C1	PE12CNT15NC-C1	PE12CNT15PO-C1	PE12CNT15PC-C1	PE12CNT15-C1

Note: Please order emitter and receiver separately

Specifications Emitter

Rated operational volt. (U _B)	10 to 30 VDC	Light source	LED, 880 nm
Ripple (U _{rip})	≤ 10%	Light type	Infrared, modulated
Supply current	≤ 20 mA	Optical angle	± 5°
Protection	Reverse polarity, transients	Indication function	LED, green
Control input		Power supply ON	LED, green flashing
Normal oper.	> 1.5 VDC	Mute input ON	
Mute	< 1.2 VDC	Power adjustment	0 - 100%, in 20 step
		R _x ~ 3 kΩ -10 kΩ	

Specifications Receiver

Rated operating dist. (S_n)	15 m	Optical angle	± 5°
Blind zone	None	OFF-state current (I_r)	≤ 100 µA
Temperature drift	≤ 0.4%/°C	Voltage drop (U_d)	≤ 1.6 VDC @ 100 mA
Hysteresis (H)	3 - 20%	Protection	Short-circuit, reverse polarity, transients
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)	Operating frequency (f)	100 Hz
Ripple (U_{rip})	≤ 10%	Response time	OFF-ON (t _{ON}) ≈ 3.5 ms ON-OFF (t _{OFF}) ≈ 6.5 ms
Output current		Power ON delay (t_v)	≤ 300 ms
Continuous (I _e)	≤ 100 mA	Output function	NPN or PNP
Short-time (I)	≤ 100 mA, (max. load capacity 100 nF)	Indication function	Output ON
No load supply current (I_o)	≤ 16 mA		Make or break (NO or NC)
Minimum operational current (I_m)	0.5 mA		LED, yellow
Ambient light	>20.000 LUX		

General Specifications

Environment		Rated insulation voltage	50 VDC
Overvoltage category	II (IEC 60664/60664A, 60947-1)	Housing material	
Pollution degree	3 (IEC 60664/60664A, 60947-1)	Body PE12	PC black
Degree of protection	IP 67 (IEC 60529, 60947-1)	Front glass	PC black
Temperature		Connection	
Operating	-20° to +50°C (-4° to +122°F)	Cable	PVC, grey, 5 m, 3 x 0.12 mm ² , Ø 3.2 mm
Storage	-25° to +80°C (-13° to +176°F)	Weight	
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)	Emitter	80 g
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)	Receiver	80 g
		CE-marking	EN12445, EN12453, EN12978

Operation Diagram

t_v = Power ON delay

Power supply

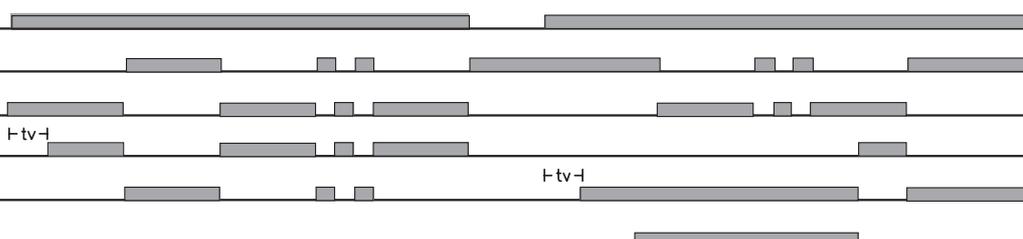
Target emitter present

Object present

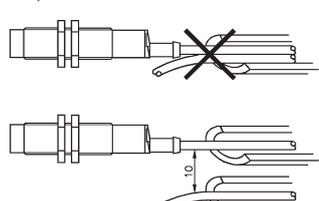
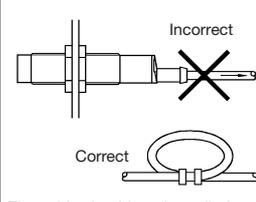
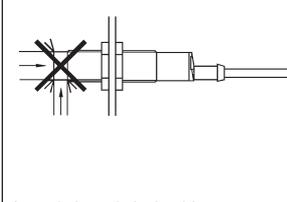
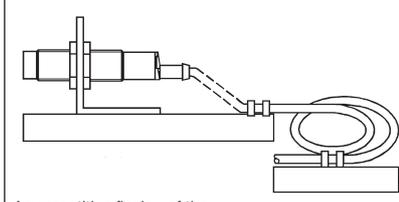
Break (NC) Output ON

Make (NO) Output ON

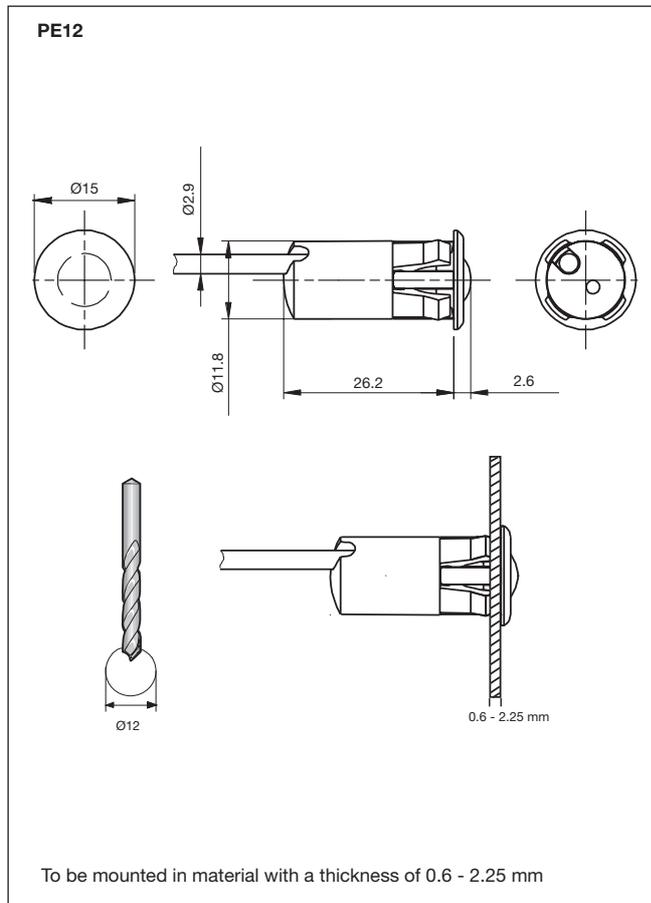
Mute active ≤ 1.2 VDC



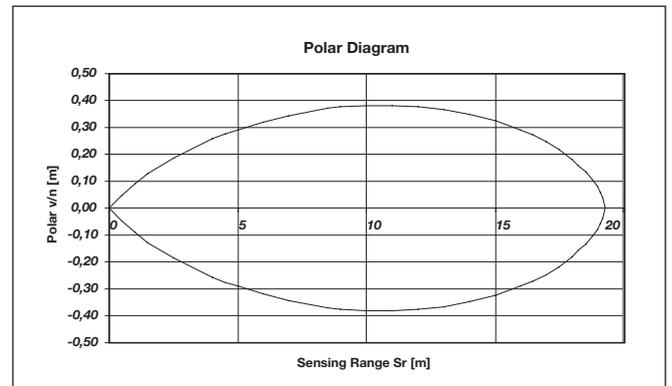
Installation Hints

<p>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</p> 	<p>Relief of cable strain</p>  <p>The cable should not be pulled</p>	<p>Protection of the sensing face</p>  <p>A proximity switch should not serve as mechanical stop</p>	<p>Switch mounted on mobile carrier</p>  <p>Any repetitive flexing of the cable should be avoided</p>
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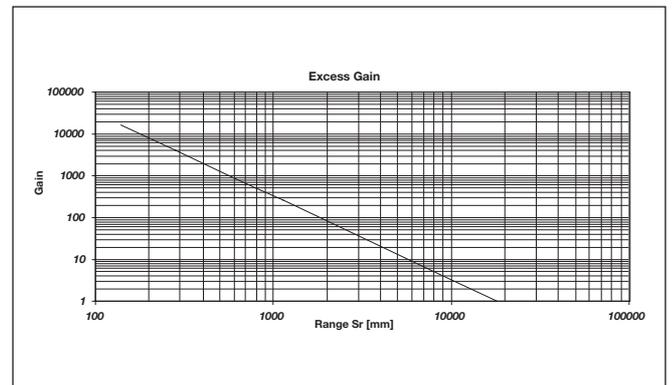
Dimensions



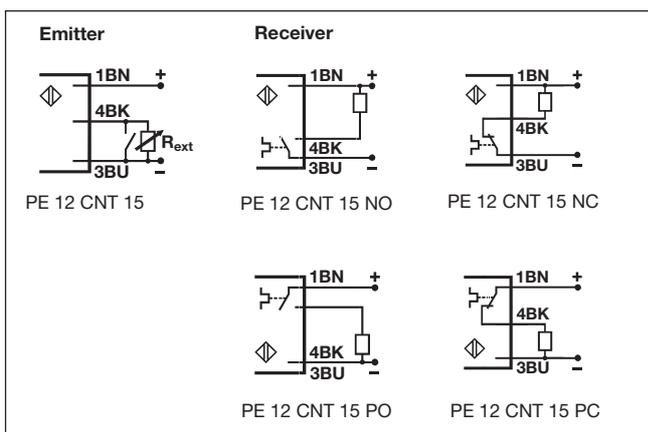
Detection Diagram



Excess Gain



Wiring Diagram



Delivery Contents

- PE12
- Installation instruction
- **Packaging:** plastic bag