Photoelectrics
Through-beam, Transistor Output
Type PD70CNT12..



- Doors and Entrance control
- Range 12 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 or M8 connector
- Emitter mute
- CE and UL325 approved

Product Description

The PD70 sensor family of Photoelectric sensors is specially designed for Doors and Entrance control to meet the requirements in the door market. The slim housing design fits inside the aluminium frame of e.g. sliding doors.
The emitter has a test input to turn it off for evaluation of the sensor function.
Available in 10-30 VDC version.

Ordering Key

PD70CNT12NOM5MH

- **Type**
- **Housing style**
- **Housing size**
- **Housing material**
- **Sensor code**
- **Detection principle**
- **Sensing distance**
- **Output type**
- **Output configuration**
- **Connection type**
- **Mute input**

Type Selection

Test	Range S_n	Connector	Ordering no. Receiver NPN, NO	Ordering no. Receiver NPN, NC	Ordering no. Receiver PNP, NO	Ordering no. Receiver PNP, NC	Ordering no. Emitter
Mute Low	12 m	NO	**PD70CNT12NO**	**PD70CNT12NC**	**PD70CNT12PO**	**PD70CNT12PC**	**PD70CNT12ML**
Mute Low	12 m	YES	**PD70CNT12NOM5**	**PD70CNT12NCM5**	**PD70CNT12POM5**	**PD70CNT12PCM5**	**PD70CNT12M5ML**
Mute High	12 m	NO					**PD70CNT12MH**
Mute High	12 m	YES					**PD70CNT12M5MH**

Note: Please order emitter and receiver separately

Specifications Emitter

Rated operational volt. (U_B)	10 to 30 VDC
Ripple (U_{rrp})	≤ 10%
Supply current	≤ 20 mA
Protection	Reverse polarity, transients
Test input	
Test High	
Emitter off	5 to 30 VDC
Emitter on	< 2.5 VDC or not connected
Test Low	
Emitter off	< 2.5 VDC
Emitter on	5 to 30 VDC or not connected

Light source	LED, 850 nm
Light type	Infrared, modulated
Optical angle	< ± 5°
Indication function	
Power supply ON	LED, green

ООО «Сенсорен Электро» +7(495)150-48-00 info@sensoren.ru
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CARLO GAVAZZI

Specifications Receiver

Rated operating dist. (S_n)	12 m
Blind zone	None
Temperature drift	≤ 0.2%/°C
Hysteresis (H)	10 - 15%
Rated operational volt. (U_B)	10 to 30 VDC (ripple included)
Ripple (U_{rrp})	≤ 10%
Output current	
Continuous (I_e)	≤ 100 mA
Short-time (I)	≤ 100 mA, (max. load capacity 100 nF)
No load supply current (I_o)	≤ 16 mA
Minimum operational current (I_m)	0.5 mA
Ambient light	100.000 LUX

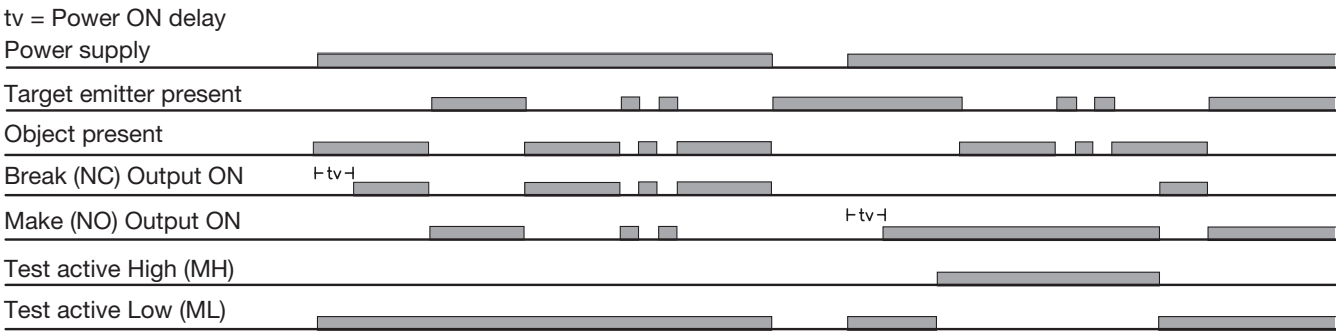
Optical angle	± 5°
OFF-state current (I_r)	≤100 µA
Voltage drop (U_d)	≤ 1.8 VDC @ 100 mA
Protection	Short-circuit, reverse polarity, transients
Operating frequency (f)	100 Hz
Response time OFF-ON (t_{ON})	< 5 ms
ON-OFF (t_{OFF})	< 5 ms
Power ON delay (t_v)	≤ 200 ms
Output function	
NPN or PNP	Make or break (NO or NC)
Indication function	
Output ON	LED, yellow

General Specifications

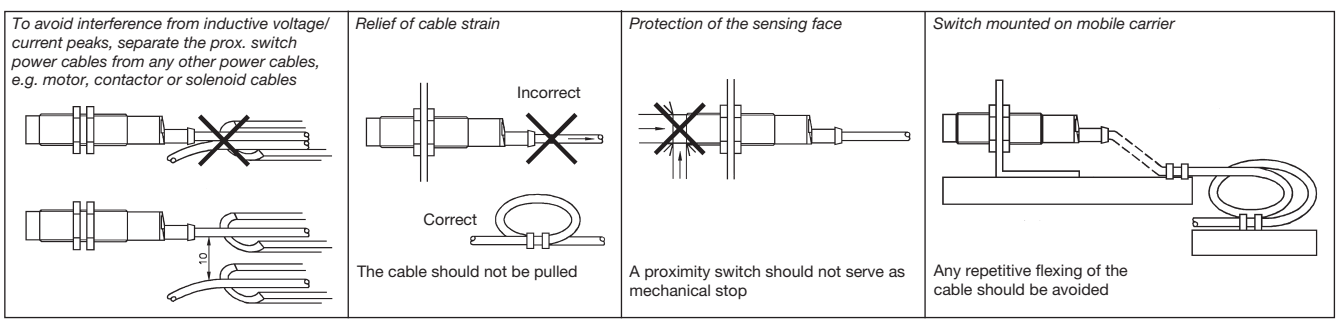
Environment	
Overvoltage category	II (IEC 60664/60664A, 60947-1)
Pollution degree	3 (IEC 60664/60664A, 60947-1)
Degree of protection	IP 67 (IEC 60529, 60947-1)
Temperature	
Operating	-25° to +55°C (-13° to +131°F)
Storage	-40° to +70°C (-40° to +158°F)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-32)
Rated insulation voltage	50 VDC

Housing material	
Housing	PC black
Backpart receiver	PC Green
Backpart emitter	PC Red
Connection	
Cable	PVC, TX: grey / RX: black, 5 m, 3 x 0.14 mm², Ø 2.9 mm
Plug	M8 - 3 pole
Weight (each sensor)	
With cable	90 g
With plug	20 g
CE-marking	EN12445, EN12453, EN12978
UL-Approval cULus	UL325, CSA-C22.2 No.247

Operation Diagram

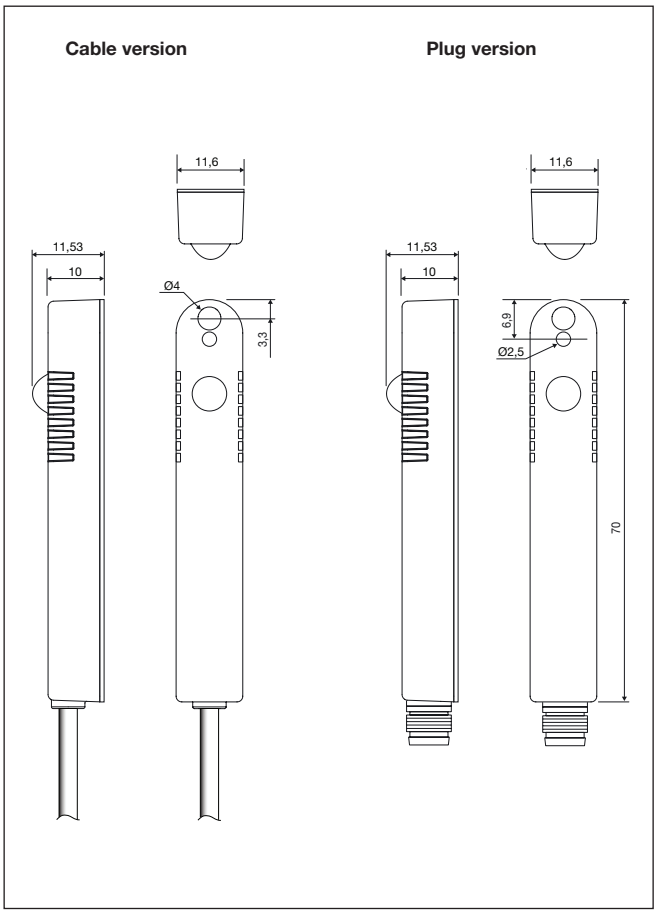


Installation Hints

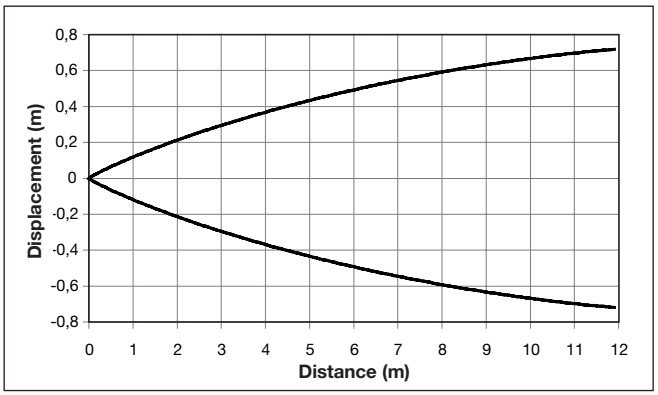


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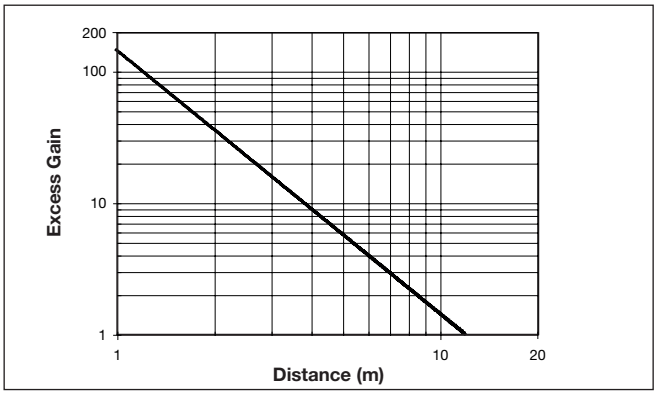
Dimensions



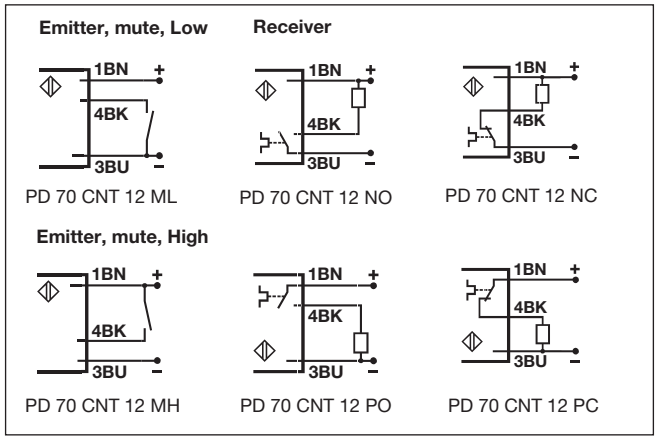
Detection Diagram



Excess Gain



Wiring Diagram



Delivery Contents

- PD70
- **Packaging:** plastic bag

Accessories

- Connector type: CON.53NF.. series to be purchased separately

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