



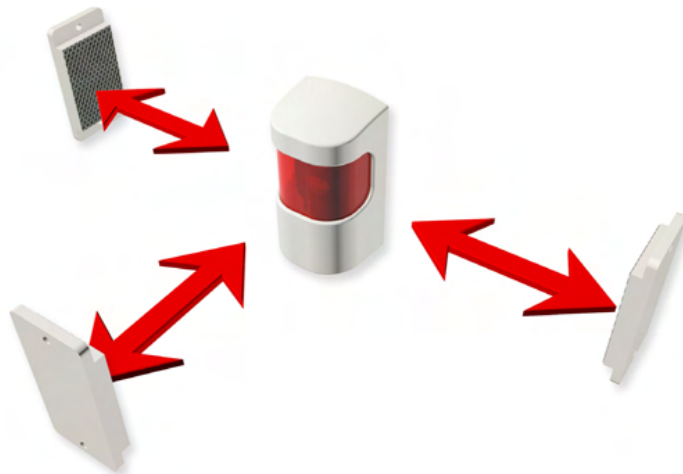
FOTOBUNKA S ODRAZKOU PD86

PD86 je reflexná závora s polarizovaným svetlom pre automatické dverné a bránové systémy do 15m s použitím odrazky, teda bez nutnosti oddeleného vysielača na druhej strane priechodu (úspora káblov, rezania drážky, trubky pod cestou a montáže)

Závora môže detekovať prítomnosť objektu v jednom z troch možných smerov a je veľmi dobre chránená proti pôsobeniu nepriaznivých poveternostných vplyvov. Napájanie je univerzálne (jednosmerné alebo striedavé) v rozsahu 12-24 V.

Výstup tvorí kontakt elektromechanického relé s možnosťou nastavenia spínacieho alebo rozpínacieho módu (NO/NC), čo zjednodušuje možnosť použitia fotoelektrickej závory.

Vstup MUTE preruší detekciu počas prítomnosti signálu na vstupe.



Photoelectrics

Retro-reflective, Industrial Door Market

Type PD86, Polarized, Relay Output, Mute Input

CARLO GAVAZZI



- Range: 12 m @ ER 4 (15 m @ ER100)
- Modulated, visible light, polarized
- Make or break switching function, selectable by DIP-switch
- Active high or active low mute function (switch selectable)
- LED-indication for target detected and power
- Multi supply voltage: 12-24 VDC/VAC, 50/60 Hz
- 86 x 44 x 39 mm reinforced PC/ABS-housing, IP 66
- SPST relay output
- High EMC and ambient light immunity
- CE, UL325 and UL508 approved



Product Description

The PD86 is a powerful polarized retro reflective sensor. The sensor is designed to meet the harsh requirements in industrial door and gate environments. With a sensing distance of 12 m, the sensor is useful in applications where dust and weather conditions

will influence on the sensing distance. The sensor is made of a strong glass reinforced PC housing. With the mute input, the sensor fulfils European and North American regulations for industrial doors.

Ordering Key

PD86CNP12QPMU

Type	_____
Housing style	_____
Housing size	_____
Housing material	_____
Not used	_____
Detection principle	_____
Sensing distance	_____
Supply voltage	_____
Output Function	_____
Mute function	_____

Type Selection

Housing W x H x D	Range (S _n)	Ordering no.
86 x 44 x 39 mm	12 m	PD86CNP12QPMU

Specifications

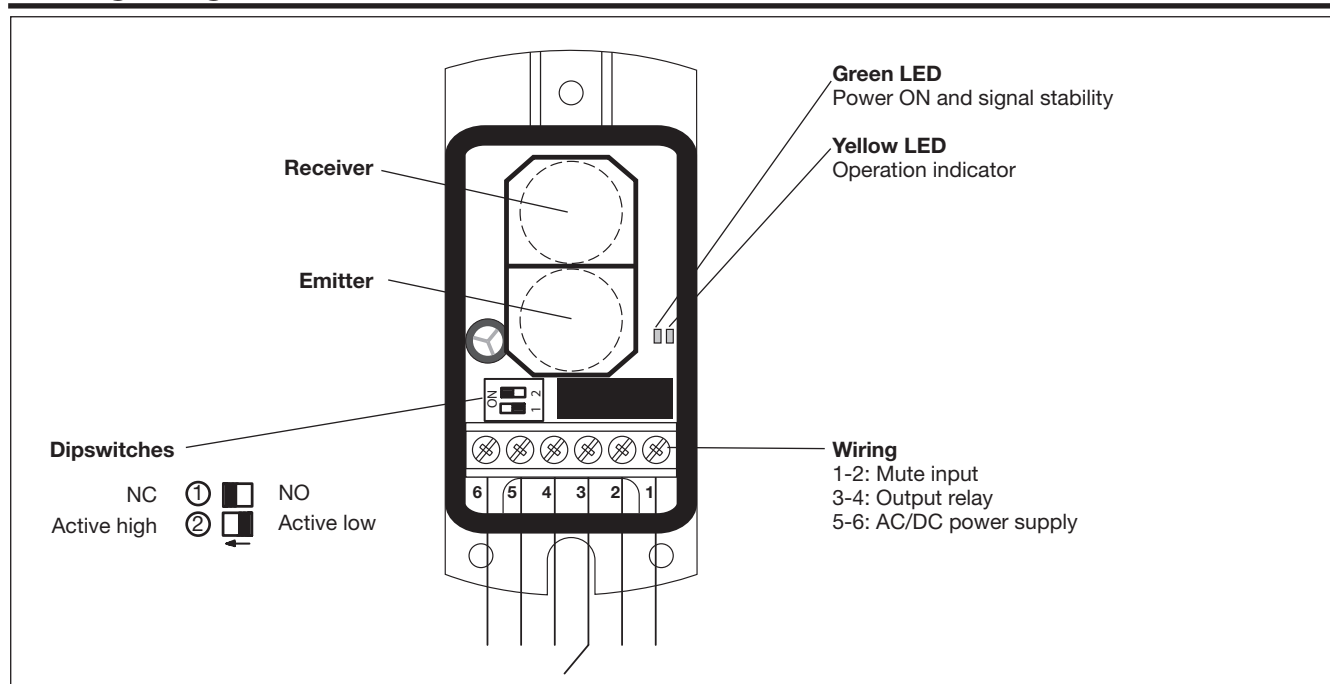
Rated operating dist. (S_n)	12 m @ ER4 ref. target (0 to 5,000 lux)	Dielectric voltage	1,000 VAC (rms) (cont./supply)
Blind zone	≤ 0.15 m	Light source	GaAlAs, LED, 660 nm
Sensitivity	Fixed	Light type	Visible, modulated
Temperature drift	≤ 0.6 %/°C	Optical angle	± 1.5°
Differential travel (H) Hysteresis	3 to 20%	Light spot size	280 mm at 4 m
Rated operational volt. (U_B) AC: 45 to 65 Hz	12-24 VDC, - 15% +20% 12-24 VAC, - 15% +20%	Ambient light	Max. 5,000 lux
Rated operational power (Relay ON)	12 VAC 648 mW 24 VAC 1680 mW 12 VDC 324 mW 24 VDC 840 mW	Operating frequency	20 Hz
Output	μ (micro gap)	Response time (object related) OFF-ON (t _{ON}) ON-OFF (t _{OFF})	≤ 20 ms ≤ 30 ms
Contact ratings (AgCdO)	AC 1 0.5 A/30 VAC DC 1 1 A/30 VDC	Power ON delay (t_v)	≤ 300 ms (typ. 100 ms)
Resistive loads	AC 15 0.5 A/50 VAC DC 13 1 A/30 VDC	DIP-switch Selectable functions Mute input Relay output	active high or active low NO (make) or NC (break)
Small inductive loads	≥ 1,000 000 cycles	Mute function Active high Response time Hold time Active low Response time Hold time	≥ 12 VDC/VAC < 45 ms < 70 ms < 6 VDC/VAC < 70 ms < 45 ms
Mechanical life (typical)	> 100,000 AC11 or DC11	Max current	35 mA @ 24 VDC 70 mA @ 24 VAC
Electrical life (typical)	1,800 operations per hour		
Minimum load power	1 mW		



Specifications (cont.)

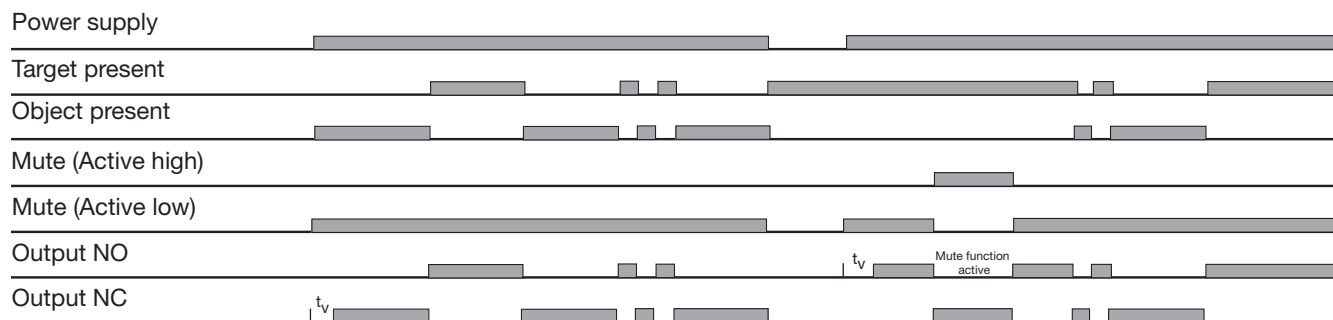
Indication		Rated insulation voltage	250 VAC (rms)
Target detected	LED, yellow	Housing material	Outer cover PC, grey Inner cover PMMA, red Backpart ABS, black Cable outlet Kraiburg TC5MLZ or TP5VCZ
Power	LED, green		
Signal	LED, green		
Environment		Connection	6 x 1.5 mm ² terminal block for cable 3 to 6.5 mm
Overvoltage category	III (IEC 60664/60664A; 60947-1)	Screw terminal	
Pollution degree	3 (IEC 60664/60664A; 60947-1)	Weight	110 g
Degree of protection	IP 66 (IEC 60529; 60947-1)	UL-Approval	UL325, UL508
Temperature		CE-marking	Yes EN12453, EN12445, EN12978
Operating	-25° to +60°C (-76° to +140°F)		
Storage	-35° to +80°C (-31° to +176°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)		

Wiring Diagram

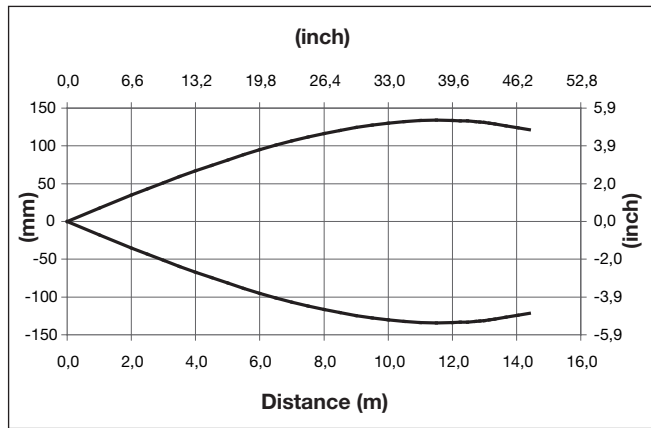


Operation Diagram

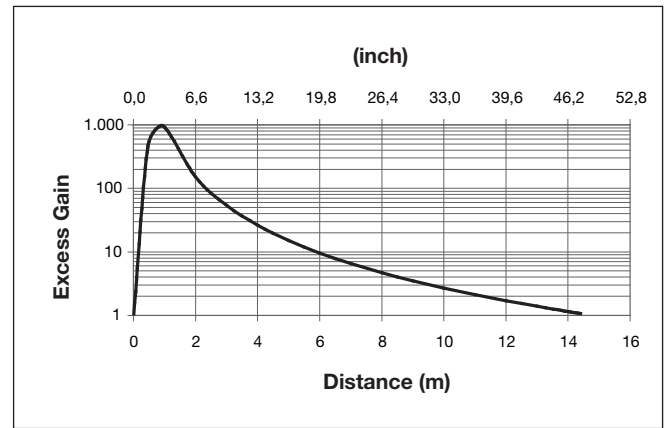
t_v = Power ON delay



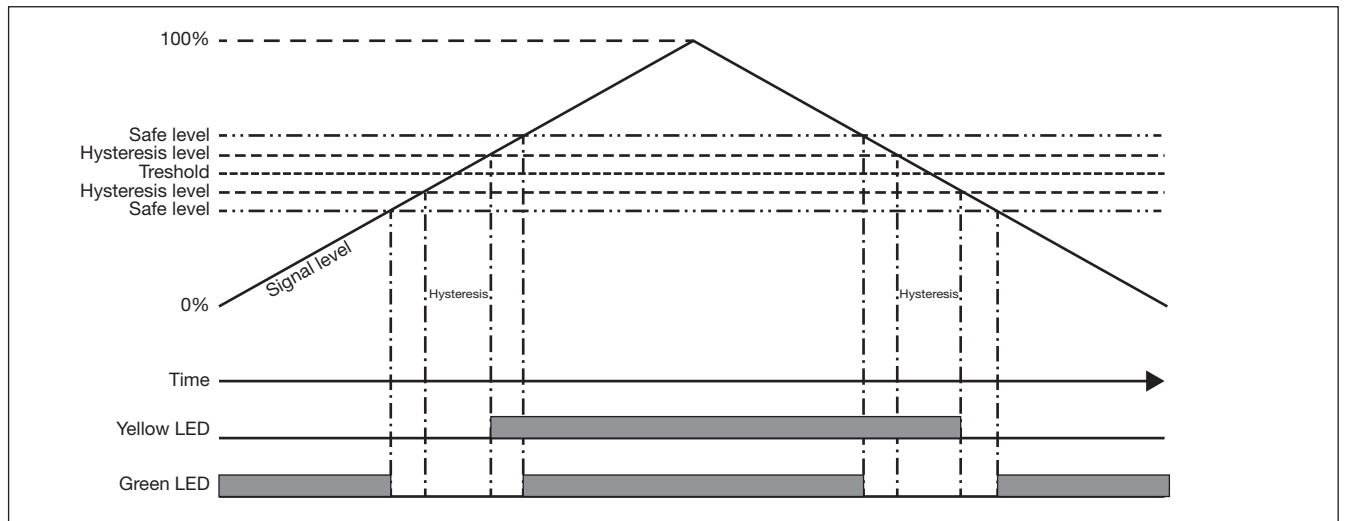
Detection Diagram



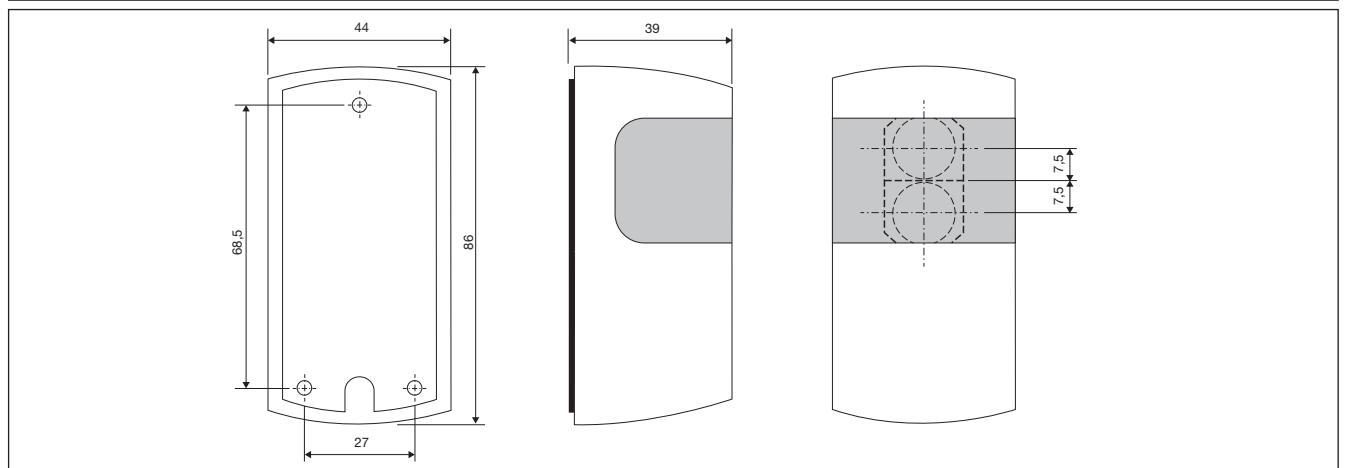
Excess Gain



LED



Dimensions



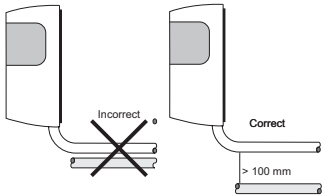
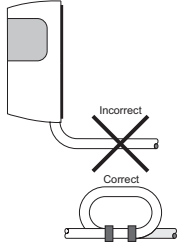
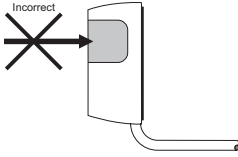
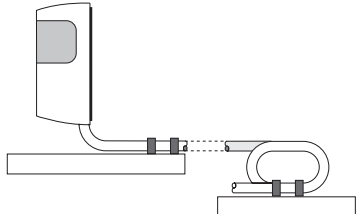
Delivery Contents

- Photoelectric switch: PD86CNP12QPMU
- Screws and rawlplugs
- Installation instruction
- **Packaging:** Cardboard box

Accessories

- Reflectors: ER series

Installation Hints

<p><i>To avoid interference from inductive voltage / current peaks, separate the proximity switch cables from any other power cables. E.g. Engine, contactor or solenoid cables</i></p>  <p>Incorrect</p> <p>Correct</p> <p>> 100 mm</p>	<p><i>Relief of the cable strain</i></p>  <p>Incorrect</p> <p>Correct</p> <p><i>The cable should not be pulled</i></p>	<p><i>Protection of the sensing face</i></p>  <p>Incorrect</p> <p><i>A proximity switch should not serve as mechanical stop</i></p>	<p><i>Sensor mounted on a mobile carrier</i></p>  <p><i>Any repetitive flexing of the cable should be avoided</i></p>
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