

ps series - rectangular photoelectric sensors

Fotocellule rettangolari miniaturizzate - DC serie PS

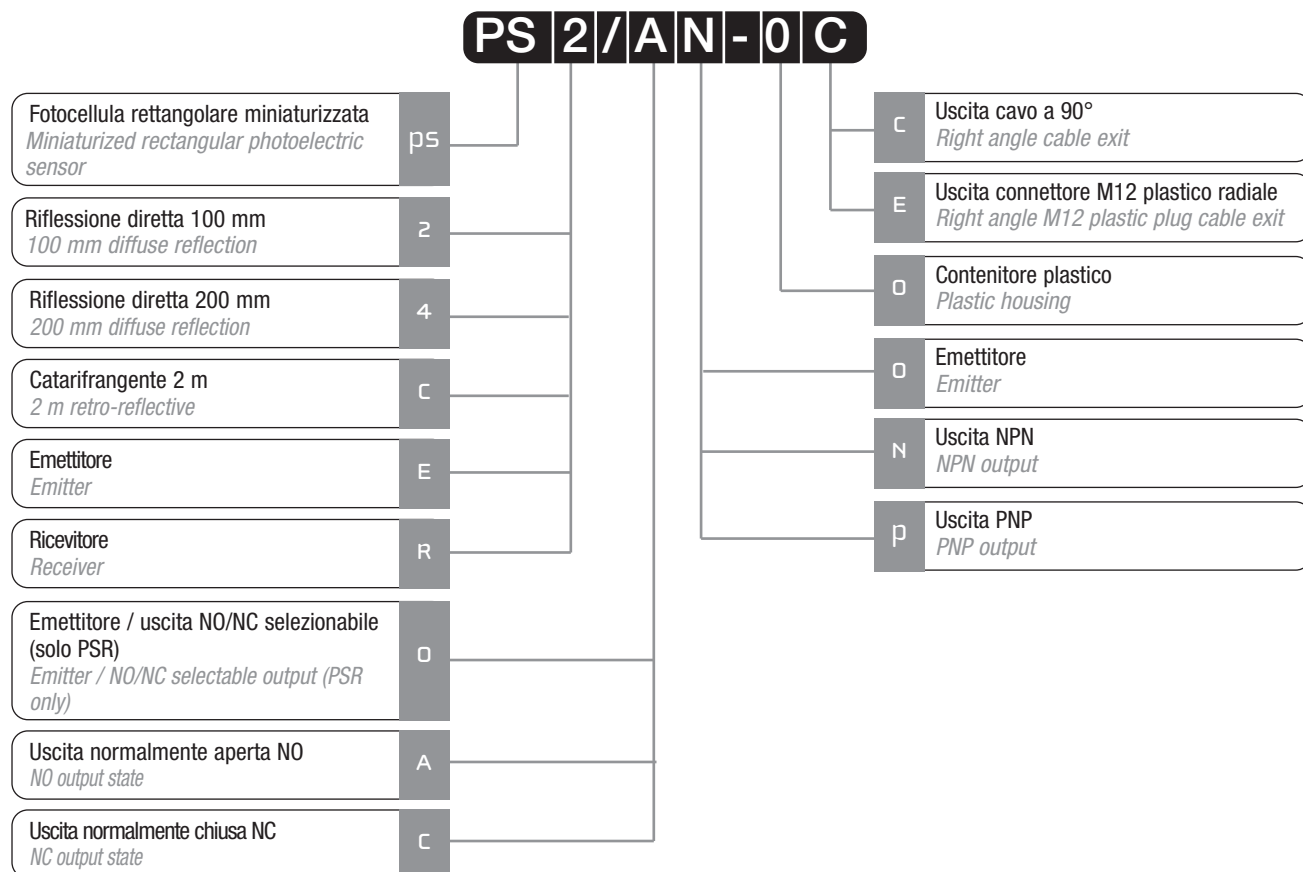
*Miniaturized rectangular
photoelectric sensors - DC PS series*



Caratteristiche principali

- | | |
|---|---|
| <ul style="list-style-type: none"> > Vasta gamma di modelli: riflessione diretta, catarifrangente, barriera > <i>Wide range of models: diffuse, retro-reflective, through-beam</i> > Dimensioni estremamente ridotte > <i>Extremely reduced dimensions</i> > Elevate distanze di rilevazione > <i>High sensing distance</i> > Regolazione della sensibilità > <i>Sensitivity adjustment</i> | <ul style="list-style-type: none"> > Uscita cavo standard o connettore M12 > <i>Standard cable exit or M12 plug exit</i> > LED indicatore di stato > <i>LED status indicator</i> > Grado di protezione IP65 > <i>IP65 protection degree</i> > Totalmente protetto contro danneggiamenti di tipo elettrico > <i>Complete protection againsts electrical damage</i> > Approvazioni: CE > <i>Approvals: CE</i> |
|---|---|

Descrizione del codice - Code structure



Modelli disponibili - Available models

Funzione / Model	Portata / Distance	Uscita / Output	3 fili / wires LO NPN	3 fili / wires DO NPN	3 fili / wires LO PNP	3 fili / wires DO PNP
Tasteggio diretto Diffuse reflection	100 mm	Cavo Cable 90°	PS2/AN-0C	PS2/CN-0C	PS2/AP-0C	PS2/CP-0C
		Connettore Plug 90°	PS2/AN-0E	PS2/CN-0E	PS2/AP-0E	PS2/CP-0E
	200 mm	Cavo Cable 90°	PS4/AN-0C	PS4/CN-0C	PS4/AP-0C	PS4/CP-0C
		Connettore Plug 90°	PS4/AN-0E	PS4/CN-0E	PS4/AP-0E	PS4/CP-0E
Catarifrangente Retro-reflexive	2 m	Cavo Cable 90°	PSC/AN-0C	PSC/CN-0C	PSC/AP-0C	PSC/CP-0C
		Connettore Plug 90°	PSC/AN-0E	PSC/CN-0E	PSC/AP-0E	PSC/CP-0E

Funzione / <i>Model</i>		Portata / <i>Distance</i>	Uscita / <i>Output</i>	4 fili / <i>wires</i> LO/DO NPN	4 fili / <i>wires</i> LO/DO PNP
Barriera <i>Through-beam</i>	Emettitore <i>Emitter</i>	4 m	Cavo <i>Cable</i> 90°	PSE/00-0C	
			Connettore <i>Plug</i> 90°	PSE/00-0E	
	Ricevitore <i>Receiver</i>		Cavo <i>Cable</i> 90°	PSR/0N-0C	PSR/0P-0C
			Connettore <i>Plug</i> 90°	PSR/0N-0E	PSR/0P-0E

Specifiche (In accordo con IEC EN 60947-5-2) - Specifications (According to IEC EN 60947-5-2)

Modello / Model	PS2/**- 0*	PS4/**- 0*	PSC/**- 0*	PSE/00 - 0* PSR/**- 0*
Tipo / Type	Riflessione diretta / Diffuse reflection		Con catarifrangente / Retro-reflective	Barriera / Through-beam
Distanza di rilevamento nominale (Sn) Nominal sensing distance (Sn)	100 mm ⁽¹⁾	200 mm ⁽¹⁾	2 m ⁽²⁾	4 m
Emissione / Emission	Infrarosso / Infrared (880nm)			
Tolleranza / Tolerance	+15/-5% Sn			Vedi Sr (glossario) See Sr (glossary)
Corsa differenziale / Differential travel	≤ 5%		≤10%	
Ripetibilità / Repeat accuracy	5%			
Tensione di alimentazione / Operating voltage	10-30 Vdc			
Ondulazione residua / Ripple	≤ 10%			
Corrente assorbita No load supply current	30 mA			25 mA (emettitore / emitter) 30 mA (ricevitore / receiver)
Corrente di uscita / Load current	≤ 100 mA			
Corrente di perdita / Leakage current	≤ 10 µA @ Vmax			
Caduta di tensione in uscita / Output voltage drop	1,2 Vmax.			
Tipo di uscita / Output type	NPN o PNP, NO o NC (NO/NC selezionabile nei modelli PSR / NO/NC selectable for PSR models)			
Frequenza di commutazione / Switching frequency	100 Hz			25 Hz
Ritardo alla disponibilità / Time delay before availability	200 ms			
Protezioni elettriche alimentazione Supply electrical protections	Inversione di polarità, sovratensioni impulsive Polarity reversal, transient			
Protezioni elettriche uscita / Supply electrical output	Corto circuito (autoripristinante) / Short circuit (autoreset)			
Regolazione di sensibilità / Sensitivity adjustment	Trimmer ad 1 giro / 1 turn trimmer			
Limiti di temperatura operativa / Temperature range	-25°C....+70°C (senza condensa / without freeze)			
Deriva termica / Temperature drift	≤ 10% Sr			
Interferenza alla luce esterna Interference external light	3000 lux (Lampada incandescente / Incandescent lamp) 10000 lux (luce solare / sunlight)			
Grado di protezione / Protection degree	IP65 (EN60529) ⁽³⁾			
Indicatori LED / LED indicators	Rosso (uscita attivata) / Red (output energized)			
Materiali contenitori / Housing material	ABS			
Material ottica / Optic material	Plexiglass			
Peso (appross.) / Weight (approx)	90 g (20 g staffa / mounting bracket ST07)			

(1) Con carta bianca opaca 100x100 mm / With 100x100 mm white matt paper

(2) Con catarifrangente standard Ø80 mm (RL110 fornito separatamente) / With standard reflector Ø80 mm (RL110 supplied seperately)

(3) Protezione garantita solo con il cavo a connettore correttamente montato / Protection guaranteed only with plug cable well mounted

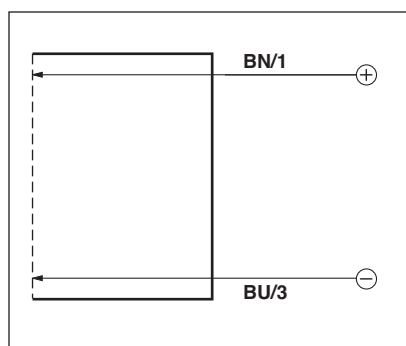
Schemi elettrici delle connessioni - Electrical diagrams of the connections

> PSE/00-0*

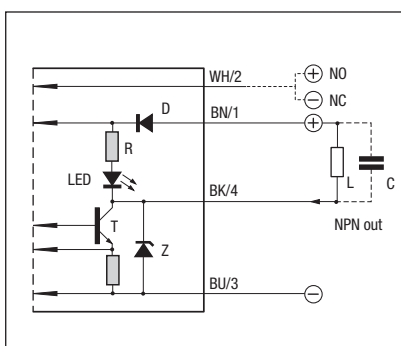
PSR/*N-0*

PSR/*P-0*

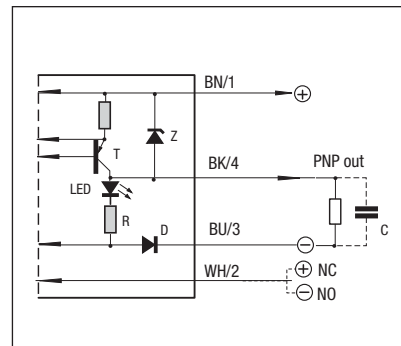
Emettitore / Emitter



Uscita NPN / NPN output



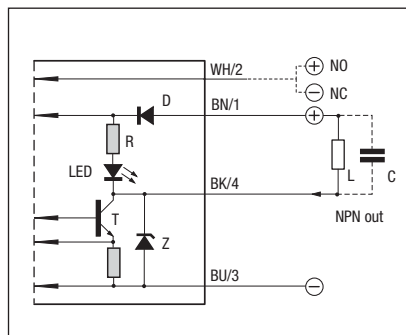
Uscita PNP / PNP output



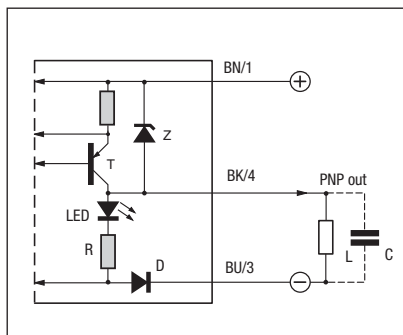
> PS*/N-0*

PS*/P-0*

Uscita NPN / NPN output



Uscita PNP / PNP output



Legenda Key

BN → marrone/brown
BK → nero/black
BU → blu/blue
WH → bianco/white

Note: In caso di carico misto resistivo e capacitivo, la massima capacità ammissibile $C = 0,1 \mu F$, per tensioni e correnti di uscite massime
Wh (filo bianco): il cavo presente nel solo ricevitore PSR/0*- 0* permette la selezione dello stato di uscita

Modello NPN: stato NO (bianco e marrone al +), stato NC (bianco e blu al -)

Modello PNP: stato NO (bianco e blu al -), stato NC (bianco e marrone al +)

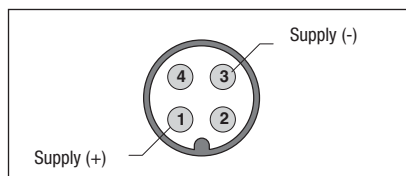
Note: In case of combined load, resistive and capacitive, the maximum admissible capacity $C = 0,1 \mu F$, for maximum output volt-age and current
Wh (white wire): the cable present on the receiver PSR/0*- 0* allows the output state selection

NPN output: NO state (white and brown on +), NC state (white and blue on -)

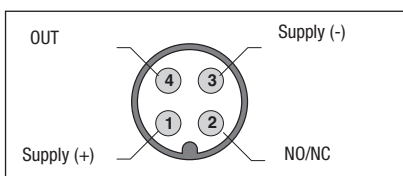
PNP output: NO state (white and blue on -), NC state (white and brown on +)

Connettore - Plug

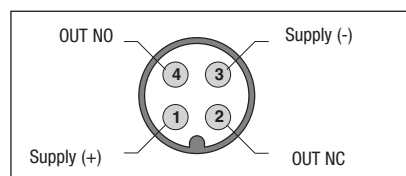
M12 PSE/00-0*



M12 PSR/0*-0*

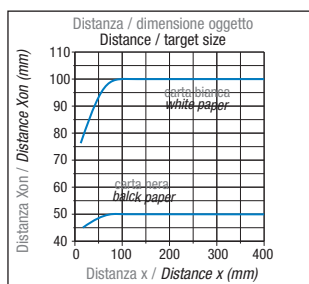
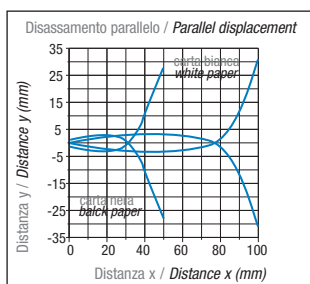
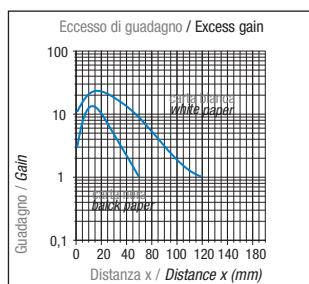


PS2/**-0*
PS4/**-0*
PSC/**-0*

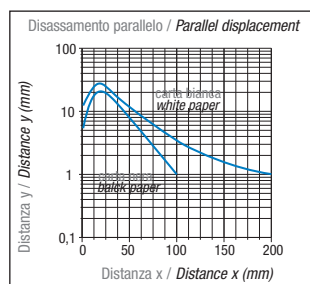


Curva di risposta - Response diagram

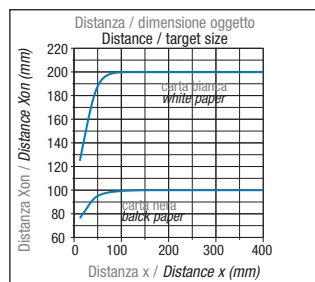
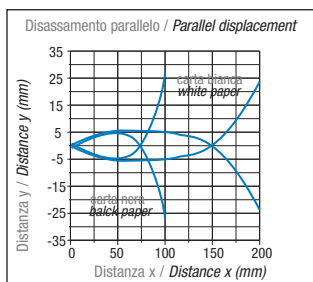
PS2/**-0*



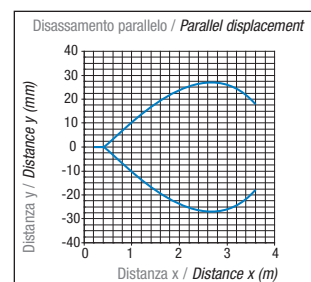
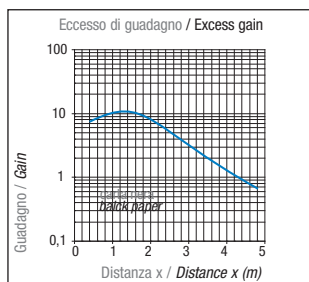
PS4/**-0*



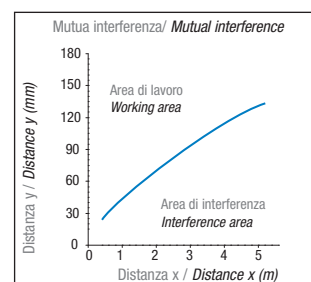
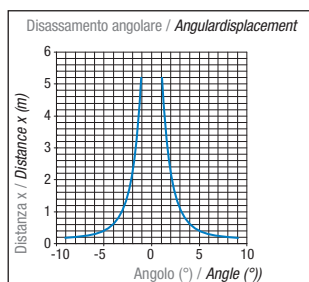
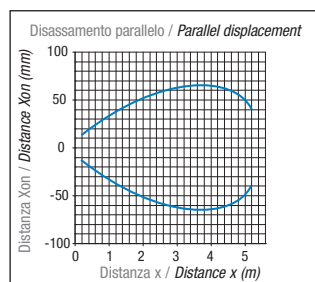
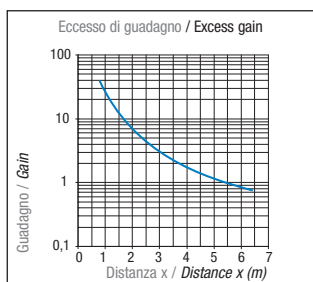
PS4/**-0*



PSC/**-0*

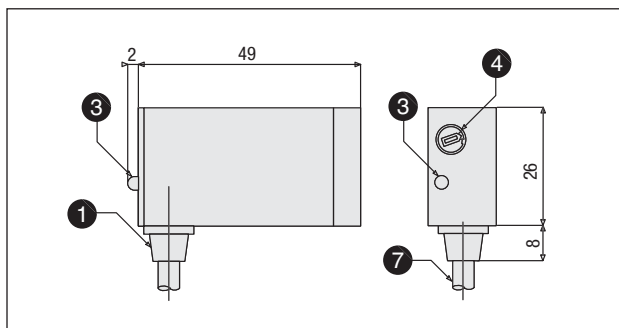


PSE/00-0* - PSR/0*-0*

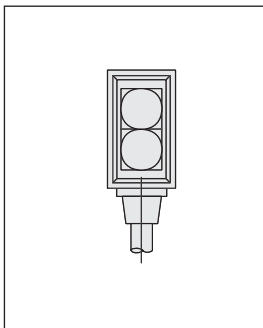


Dimensioni - Dimensions

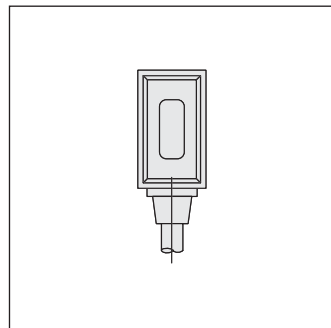
PS2/**-0C - PS4/**-0C



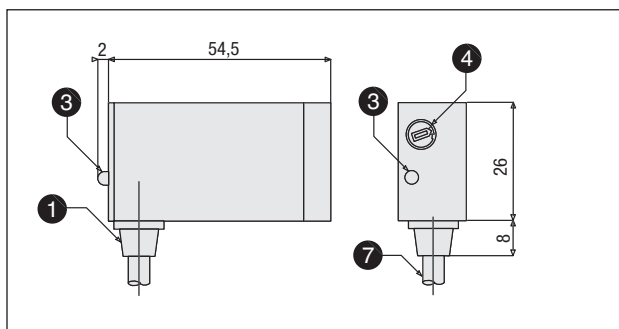
PSC/**-0C



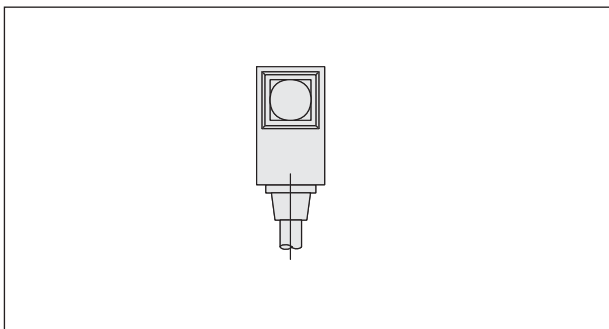
PS2/**-0C PS4/**-0C



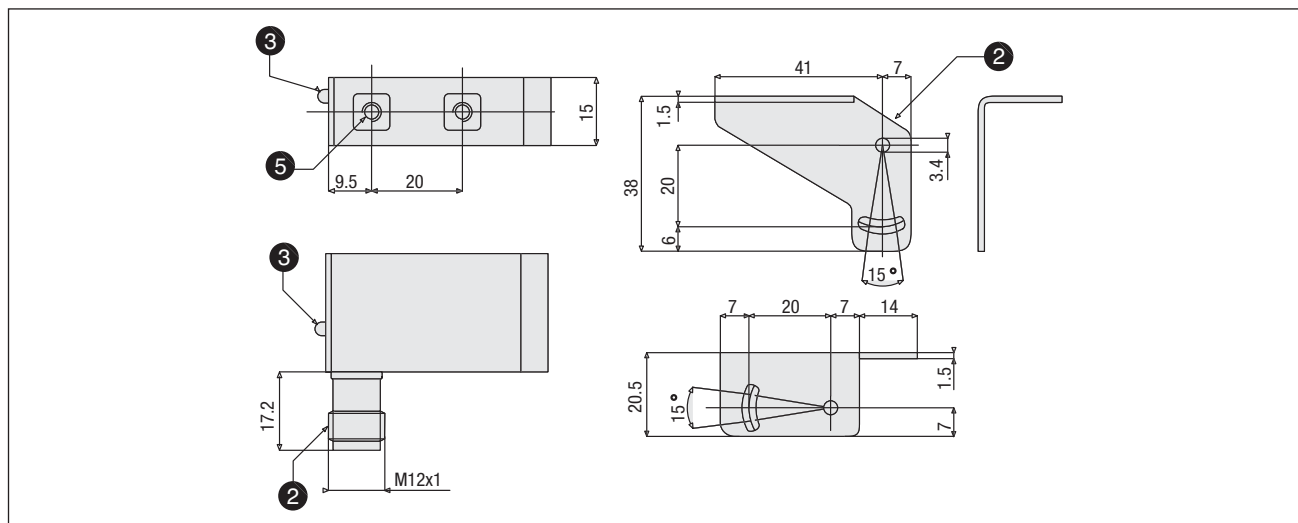
PSC/**-0C - PSE/00-0C - PSR/0*-0C



PSE/00-0C - PSR/0*-0C



PS*/**-0E



Legenda / Key

- ① Uscita cavo assiale a 90°
Right angle cable exit
- ② Uscita connettore M12 plastico
M12 plastic plug cable exit
- ③ LED rosso (stato uscita)
Red LED (output state)
- ④ Trimmer di regolazione della sensibilità (1 giro)
Sensitivity adjustment trimmer (1 turn)
- ⑤ Fori per viti di fissaggio M4
Holes for M4 mounting screws
- ⑥ Staffa di fissaggio ST07 (in dotazione)
ST07 mounting bracket (supplied)
- ⑦ Cavo 4 (2, 3) x 0,34 mm², Ø 4,7 mm, PVC, 2 m
Cable 4 (2, 3) x 0,34 mm², Ø 4,7 mm, PVC, 2 m

Connettori serie CD - Accessori serie ST / Plugs CD series - Accessories ST series