



PS series

DC miniaturized cubic photoelectric sensors



features

- Wide range of models: diffuse, retro-reflective, through-beam
- Extremely reduced dimensions
- High sensing distance
- Sensitivity adjustment
- Standard cable exit or M12 plug exit
- LED status indicator
- IP65 protection degree
- Complete protection against electrical damage



web content

- Application notes
- Photos
- Catalogue / Manuals



DC miniaturized cubic

code description

PS 2 / A N - 0 C

series	PS	Miniaturized rectangular photoelectric sensor
type	2	100 mm diffuse reflection
	4	200 mm diffuse reflection
	C	3 m retro-reflective
	E	Emitter
	R	Receiver
NO / NC output	0	Emitter / NO/NC selectable output (PSR only)
	A	NO output state
	C	NC output state
NPN / PNP output	0	Emitter
	N	NPN output
	P	PNP output
housing	0	Plastic housing 2 m
cable / plug output	C	Right angle cable exit
	E	Right angle M12 plastic plug cable exit



DC miniaturized cubic

available models

model	distance	output	3 wires				4 wires	
			LO NPN	DO NPN	LO PNP	DO PNP	LO / DO NPN	LO / DO PNP
diffuse reflection	100 mm	cable	PS2/AN-0C	PS2/CN-0C	PS2/AP-0C	PS2/CP-0C	-	-
		plug	PS2/AN-0E	-	PS2/AP-0E	-	-	-
	200 mm	cable	PS4/AN-0C	-	PS4/AP-0C	-	-	-
		plug	PS4/AN-0E	-	PS4/AP-0E	-	-	-
retro-reflexive	2 m	cable	-	-	PSC/AP-0C	-	-	-
		plug	-	-	PSC/AP-0E	PSC/CP-0E	-	-
through-beam	4 m	cable	-	-	-	-	PSE/00-0C	
		plug	-	-	-	-	PSE/00-0E	
		cable	-	-	-	-	PSR/0N-0C	PSR/0P-0C
		plug	-	-	-	-	PSR/0N-0E	PSR/0P-0E

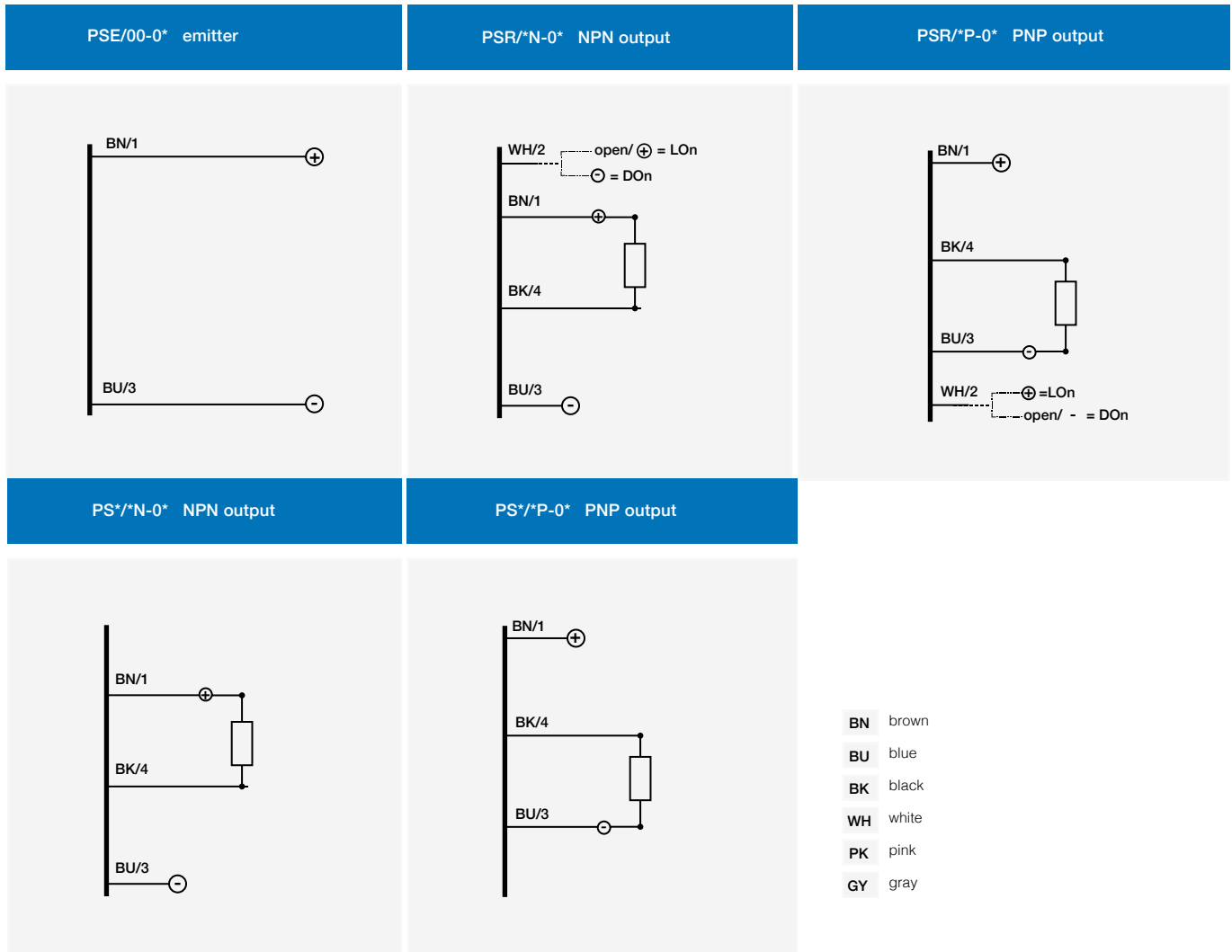
technical specification

	diffuse reflection		retro-reflexive	through-beam
	PS2/**-0*	PS4/**-0*	PSC/**-0*	PSE/00-0* PSR/**-0*
nominal sensing distance	100 mm ⁽¹⁾	200 mm ⁽¹⁾	3 m ⁽²⁾	4 m
emission	infrared (880 nm)			
tolerance	+ 15 / - 5 % Sn			-
hysteresis	≤ 5 %		≤ 10 %	
operating voltage	10...30 Vdc max			
ripple	≤ 10 %			
no-load supply current	30 mA max			25 mA (emitter) 30 mA (receiver)
load current	≤ 100 mA			
leakage current	≤ 10 µA @ Vmax			
output voltage drop	1.2 Vmax			
output type	PNP or NPN , NO or NC (NO/NC selectable for PSR models)			
switching frequency	100 Hz			25 Hz
power on delay	200 ms			
temperature range	- 25°C...+ 70°C (without freeze)			
power supply protections	polarity reversal, transient			
supply electrical output	short circuit (autoreset)			
sensitivity adjustment	1 turn trimmer			
temperature range	≤ 10 % Sr			
protection degree	IP65 (EN60529) ⁽³⁾			
EMC	in conformity with the EMC Directive according to EN 60947-5-2			
external light interference	3,000 lux (incandescent lamp), 10,000 lux (sunlight)			
LEDs	red (output energized)			
housing material	ABS			
optic material	PMMA			
weight (approximate)	70 g connector / 140 g cable (20 g mounting bracket ST07)			

⁽¹⁾ With 100x100 mm white matt paper ⁽²⁾ With standard reflector Ø80 mm (RL110 supplied separately) ⁽³⁾ Protection guaranteed only with plug cable well mounted

PS

electrical diagrams of the connections



Notes:

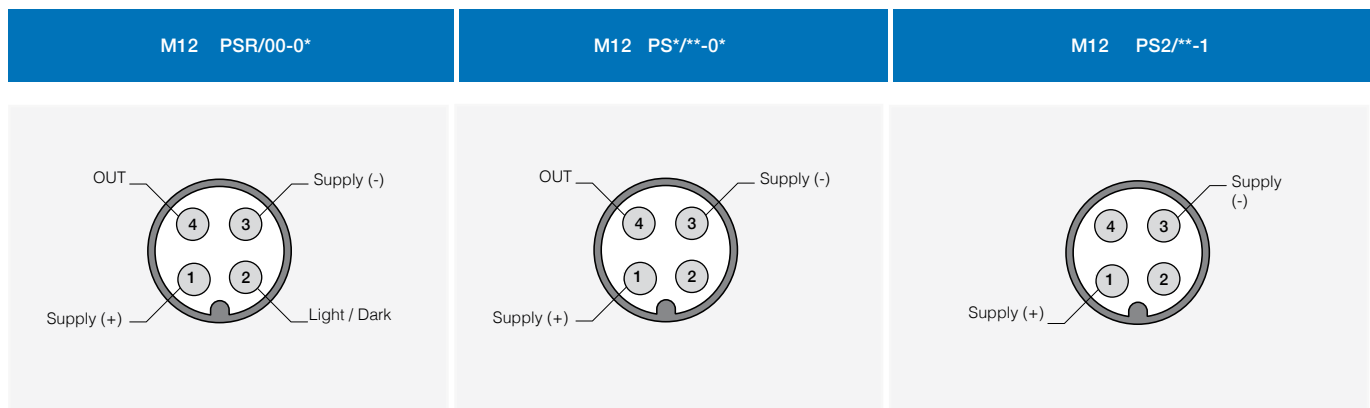
In case of combined load, resistive and capacitive, the maximum admissible capacity $C = 0,1 \mu F$, for maximum output volt-age and current.

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 +).

plug

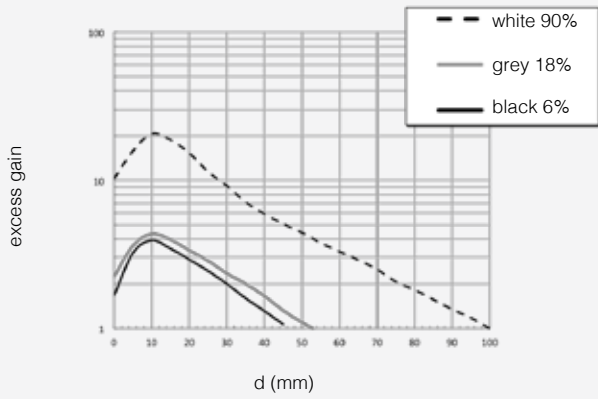




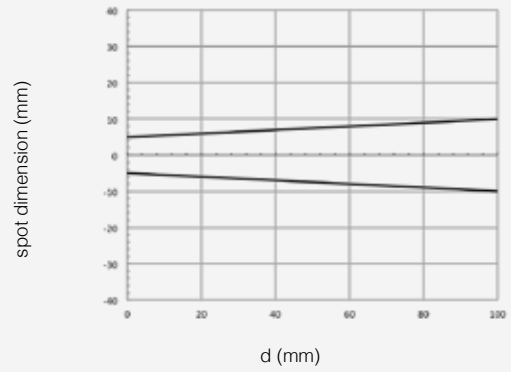
response diagrams

direct reflection models

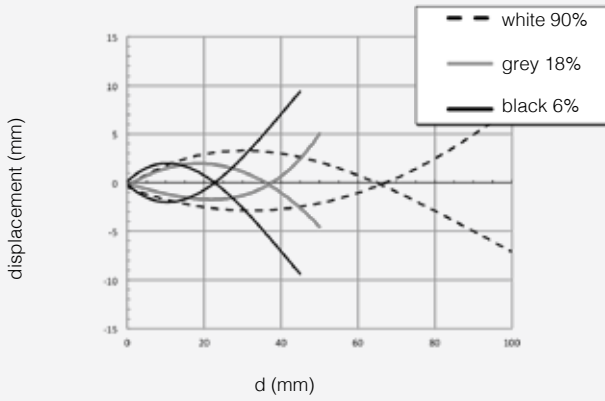
PS2/**-**-** excess gain



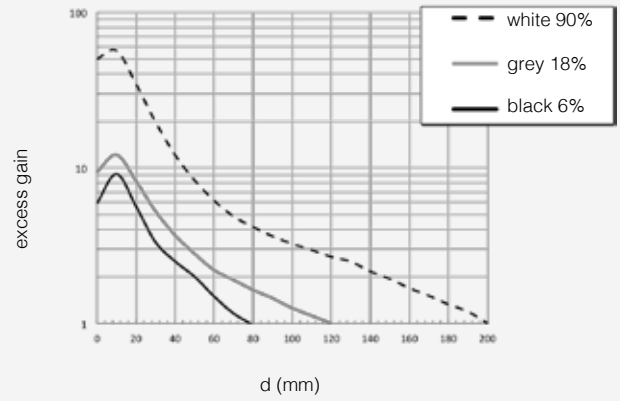
PS2/**-**-** spot dimension



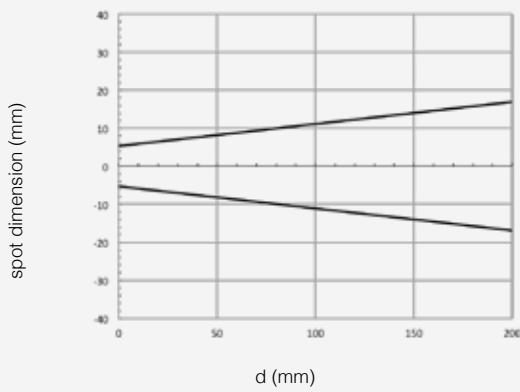
PS2/**-**-** parallel displacement



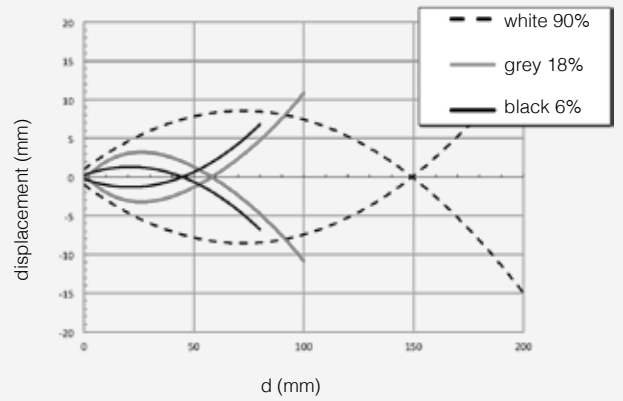
PS4/**-**-** excess gain



PS4/**-**-** spot dimension



PS4/**-**-** parallel displacement



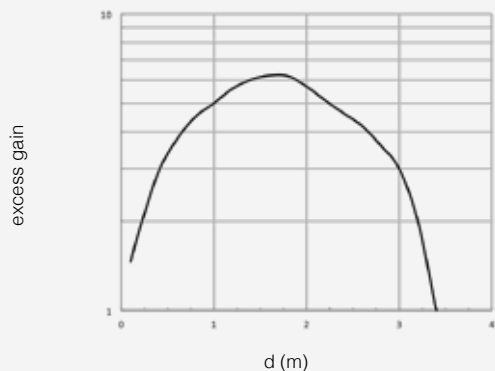
response diagrams

retro-reflective models (detected with RL 110)

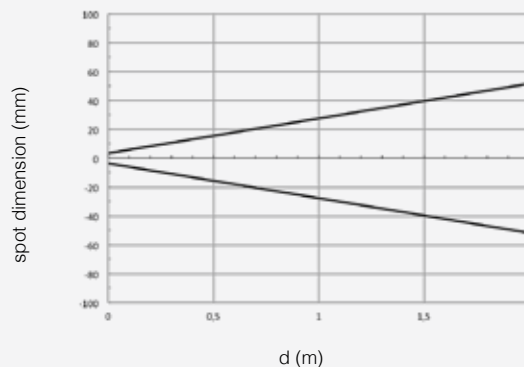


DC miniaturized

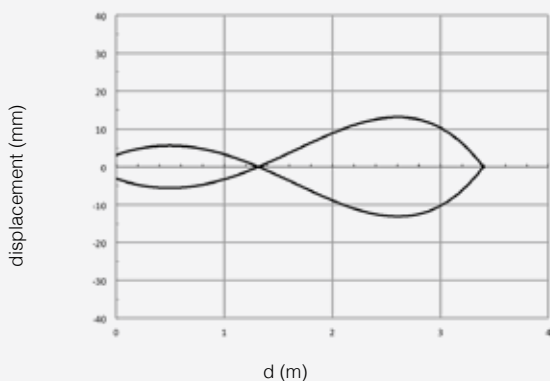
PS2/**-** excess gain



PS2/**-** spot dimension



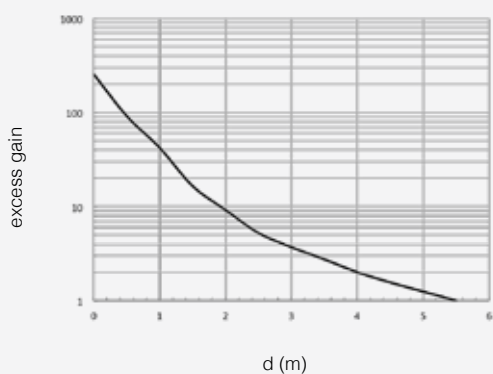
PS2/**-** parallel displacement



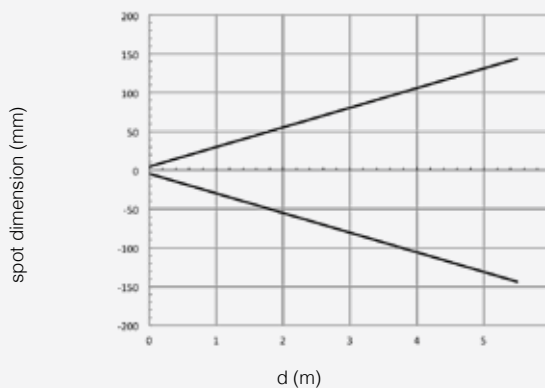
response diagrams

through beam models

PSE/00-0* - PSR/00-0* excess gain



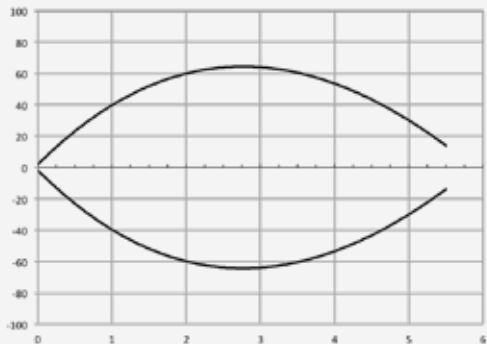
PSE/00-0* - PSR/00-0* spot dimension



PS

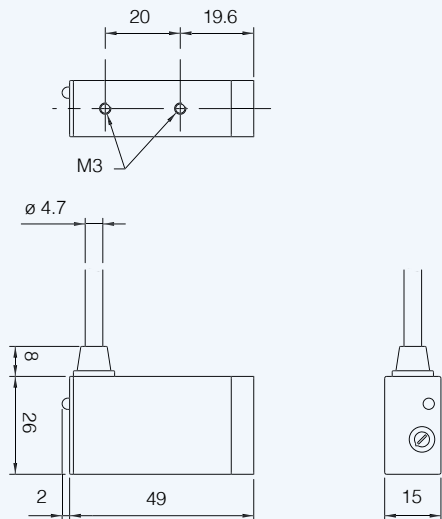


PSE/00-0* - PSR/00-0* parallel displacement

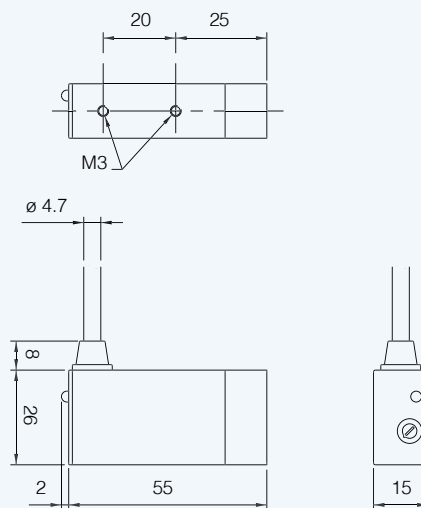


dimensions (mm)

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



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



PS+/**-0E

