





DC miniaturized cubic

## available models

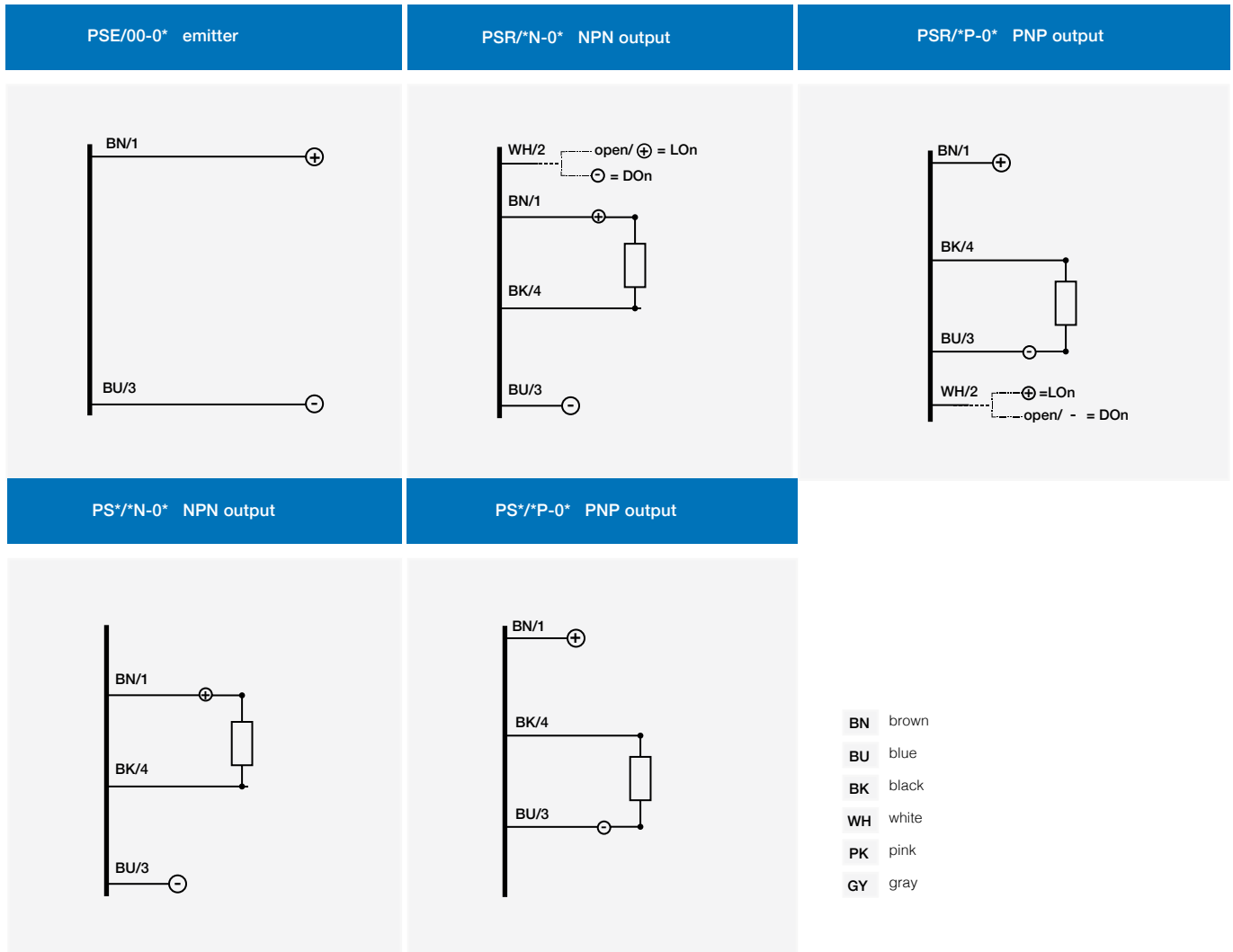
model	distance	output	3 wires				4 wires	
			LO NPN	DO NPN	LO PNP	DO PNP	LO / DO NPN	LO / DO PNP
diffuse reflection	100 mm	cable	PS2/AN-0C	PS2/CN-0C	PS2/AP-0C	PS2/CP-0C	-	-
		plug	PS2/AN-0E	-	PS2/AP-0E	-	-	-
	200 mm	cable	PS4/AN-0C	-	PS4/AP-0C	-	-	-
		plug	PS4/AN-0E	-	PS4/AP-0E	-	-	-
retro-reflexive	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 <sup>(1)</sup>	200 mm <sup>(1)</sup>	3 m <sup>(2)</sup>	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) <sup>(3)</sup>			
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)			

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

# electrical diagrams of the connections



**Notes:**

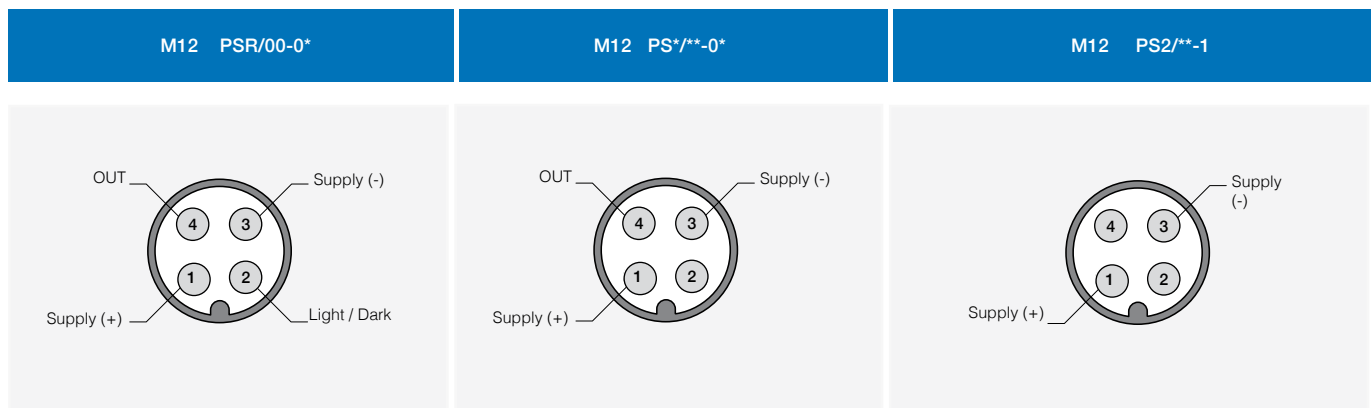
In case of combined load, resistive and capacitive, the maximum admissible capacity  $C = 0,1 \mu F$ , for maximum output volt-age and current.

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

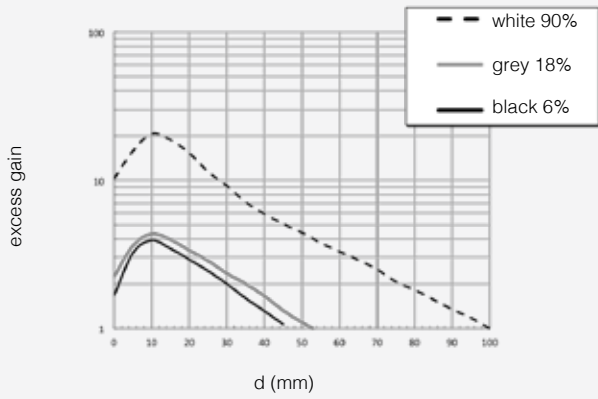




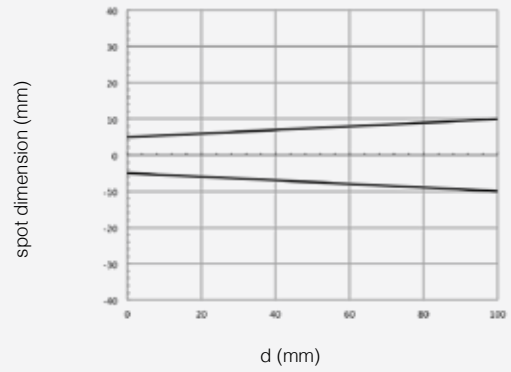
# response diagrams

direct reflection models

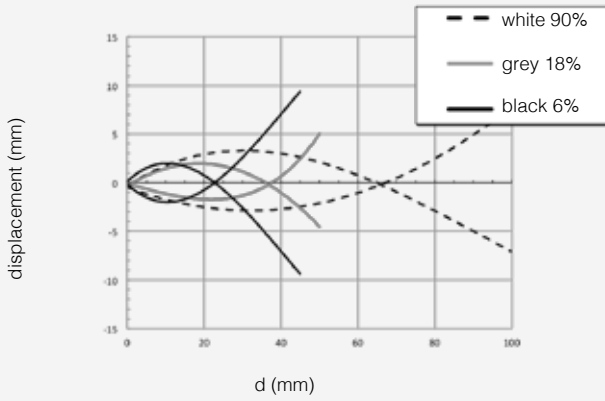
PS2/\*\*-\*\* excess gain



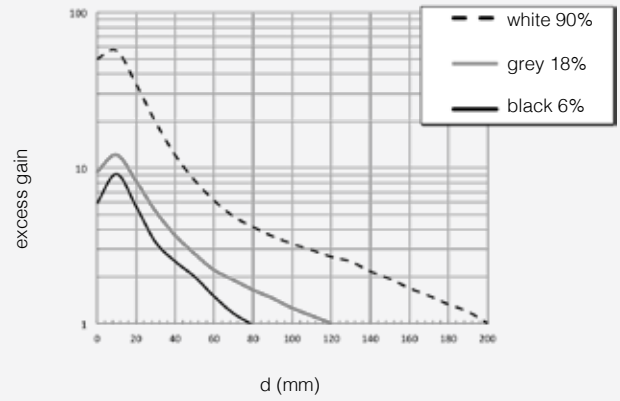
PS2/\*\*-\*\* spot dimension



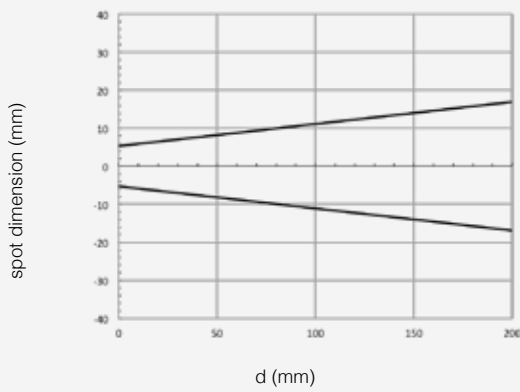
PS2/\*\*-\*\* parallel displacement



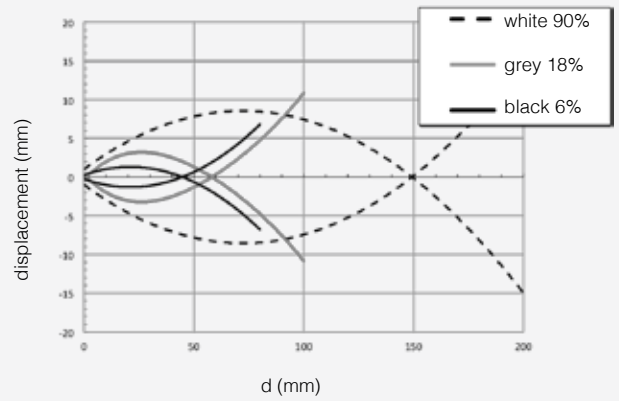
PS4/\*\*-\*\* excess gain



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



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



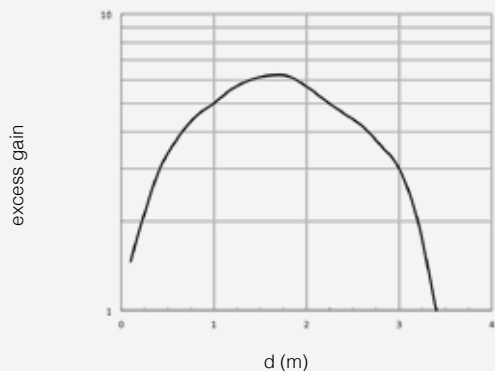
## response diagrams

retro-reflective models (detected with RL 110)

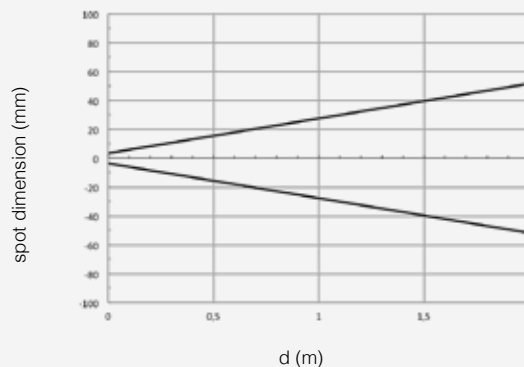


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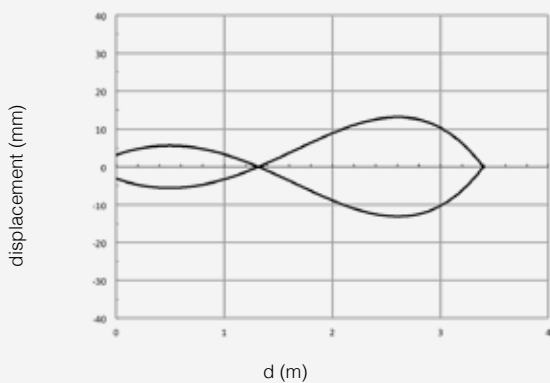
PS2/\*\*\_\*\* excess gain



PS2/\*\*\_\*\* spot dimension



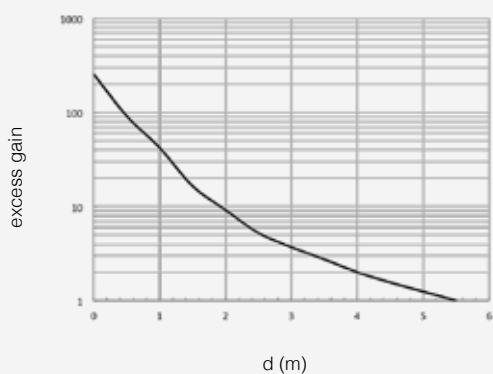
PS2/\*\*\_\*\* parallel displacement



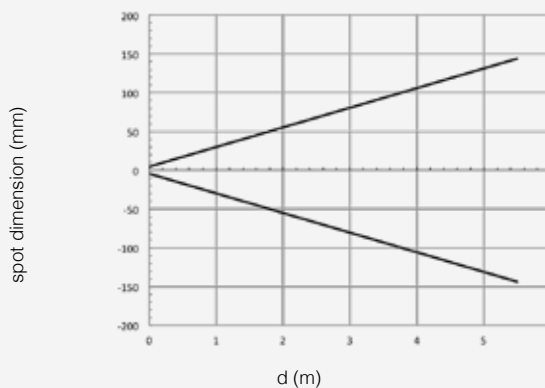
## response diagrams

through beam models

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



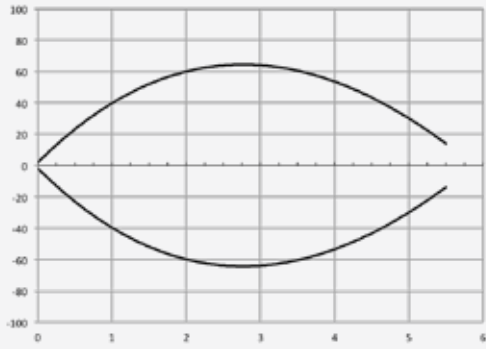
PSE/00-0\* - PSR/00-0\* spot dimension



PS

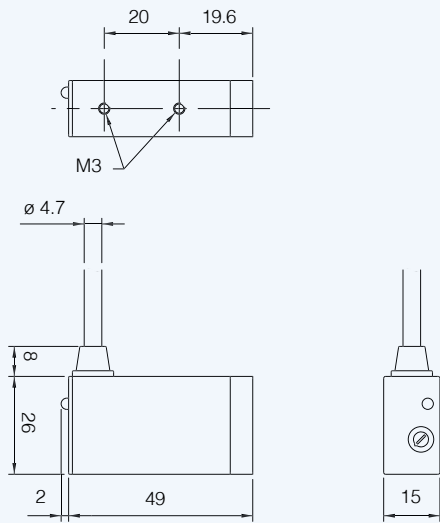


PSE/00-0\* - PSR/00-0\* parallel displacement

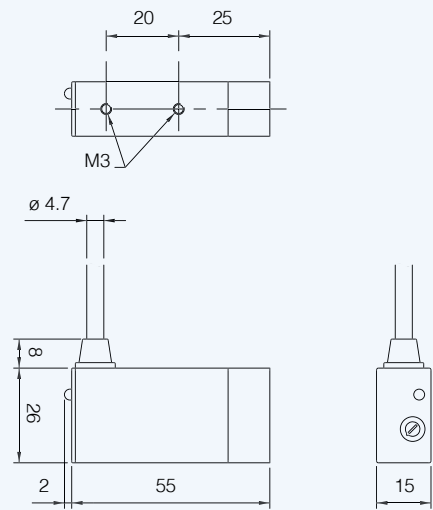


dimensions (mm)

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



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



PS+/\*\*-0E

