The background of the entire page is a composite image. The top half shows a city skyline at night with several tall buildings and a river. The bottom half shows a highway interchange with light trails from cars. Overlaid on both images are numerous white, glowing arcs that connect various points, suggesting a network or data flow.

RX series

DATASHEET

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Maxi with static output DC
or with relay output AC/DC



features

- Models: diffuse reflection, retro-reflective, polarized, through-beam and background suppression
- Series with high performances and wide possibilities of installation
- High sensing distance and very small dimensions
- Relay output or multifunctional DECOU®
- Timer function delay on, delay off, one shot; trimmer for sensitivity adjustment
- Switch reducing the emission for fine detection in through-beam types
- LED alignment indicator with 360° visibility, 2 LED indicators (stable signal, output)
- M12 standard plug cable exit; axial and right angle brackets



code description

		RX	6	/	0	0	-	1	A
series	RX	Rectangular photoelectric sensor							
type	6	1000 mm diffuse reflection							
	8	2000 mm diffuse reflection							
	C	12 m retro-reflective							
	P	8 m polarized retro-reflective							
	S	Background suppression 0,05 - 0,3 m							
	L	Background suppression 0,25 - 1 m							
	E	Emitter 20-60 Vdc / 20-253 Vac							
	R	Receiver							
timer function	0	Without timer function							
	T	With timer function							
output	1	DECOUT® output / 10-30Vdc							
	3	Relay output / 20-60Vdc - 20-253Vac							
fixing slide	A	Without fixing slide							
	B	With fixing slide							
version		Standard version							
	37	RX8 model with sensing distance up to 4,5 m							

available models

models without fixing slide

function	distance (m)	10...30 Vdc DECOUT®		20...60 Vdc / 20...253 Vac	relay
		no timer function	timer function	no timer function	timer function
background suppression	0,05...0,3	RXS/00-1A	RXS/0T-1A	RXS/00-3A	RXS/0T-3A
	0,25...1	RXL/00-1A	RXL/0T-1A	RXL/00-3A	RXL/0T-3A
diffuse reflection	1	RX6/00-1A	RX6/0T-1A	RX6/00-3A	RX6/0T-3A
	2	RX8/00-1A	RX8/0T-1A	RX8/00-3A	RX8/0T-3A
	4,5	RX8/00-1A37	RX8/0T-1A37	RX8/00-3A37	RX8/0T-3A37
retroreflective	12	RXC/00-1A	RXC/0T-1A	RXC/00-3A	RXC/0T-3A
polarized	6	RXP/00-1A	RXP/0T-1A	RXP/00-3A	RXP/0T-3A
emitter	-	-	-	RXE/00-3A	-
emitter with check	-	-	-	-	-
receiver	16...32	-	-	RXR/00-3A	RXR/0T-3A

available models

models with fixing slide

function	distance (m)	10...30 Vdc DECOUT®		20...60 Vdc / 20...253 Vac	relay
		no timer function	timer function	no timer function	timer function
background suppression	0,05...0,3	RXS/00-1B	RXS/0T-1B	RXS/00-3B	RXS/0T-3B
	0,25...1	RXL/00-1B	RXL/0T-1B	RXL/00-3B	RXL/0T-3B
diffuse reflection	1	RX6/00-1B	RX6/0T-1B	RX6/00-3B	RX6/0T-3A
	2	RX8/00-1B	RX8/0T-1B	RX8/00-3B	RX8/0T-3B
	4,5	RX8/00-1B37	RX8/0T-1B37	RX8/00-3B37	RX8/0T-3B37
retroreflective	12	RXC/00-1B	RXC/0T-1B	RXC/00-3B	RXC/0T-3B
polarized	6	RXP/00-1B	RXP/0T-1B	RXP/00-3B	RXP/0T-3B
emitter	-	-	-	RXE/00-3B	-
emitter with check	-	-	-	-	-
receiver	16...32	-	-	RXR/00-3B	RXR/0T-3B

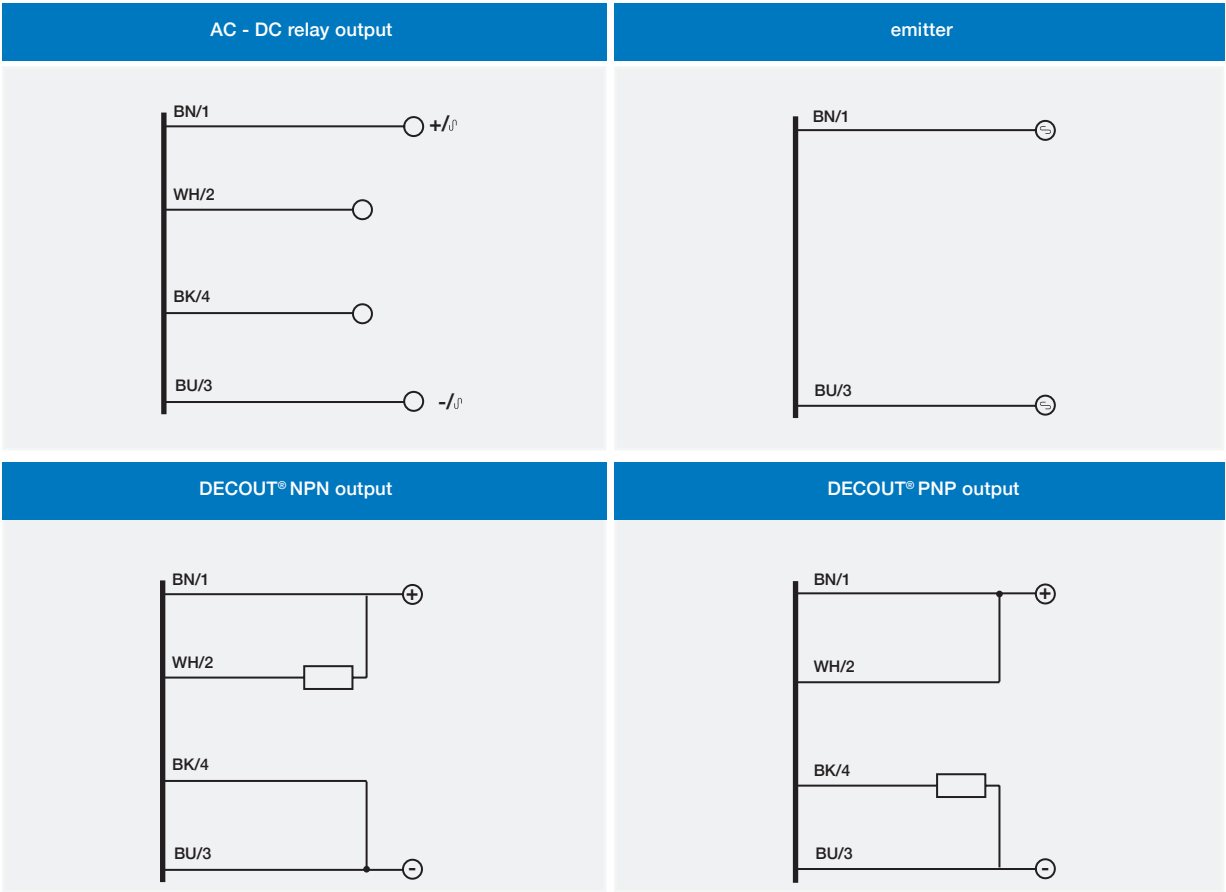
technical specification

direct diffuse, retro-reflective, background suppression models and through-beam

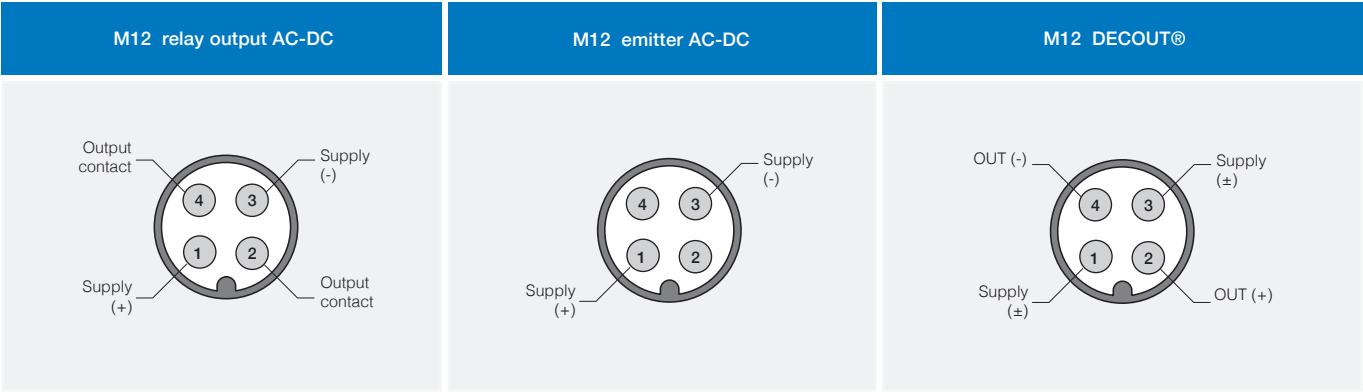
	static output - DC						relay output - AC/DC							
	diffuse reflection		retro-reflective		diffuse reflection		diffuse reflection		retro-reflective		diffuse reflection		through-beam	
	-		standard	polarized	background suppr.		-		standard	polarized	background suppr.		without check	
	RX6/0*-1*	RX8/0*-1*	RXC/0*-1*	RXP/0*-1*	RXS/0*-1*	RXL/0*-1*	RX6/0*-3*	RX8/0*-3*	RXC/0*-3*	RXP/0*-3*	RXS/0*-3*	RXL/0*-3*	RXE/0*-3* + RXR/0*-3*	
nominal sensing distance Sn	1 m ⁽¹⁾	2 m ⁽¹⁾	12 m ⁽²⁾	6 m ⁽²⁾	0,05... 0,3 m ⁽¹⁾	0,25... 1 m ⁽¹⁾	1 m ⁽¹⁾	2 m ⁽¹⁾	12 m ⁽²⁾	6 m ⁽²⁾	0,05... 0,3 m ⁽¹⁾	0,25... 1 m ⁽¹⁾	16 - 32 m	
emission	infrared (880 nm)			red (660 nm)	infrared (880 nm)				red (660 nm)	infrared (880 nm)				
tollerance	- 10...+ 30 %		EG ≥ 2 at Sr		0...+ 10 %		- 10...+ 30 %		EG ≥ 2 at Sr		0...+ 10 %		EG≥2 at Sr	
hysteresis	2...10% of the nominal sensing distance Sn													10 %
repeatability	5 %													
operating voltage	10...30 Vdc						20...253 Vac / 50 -60 Hz							
ripple	≤ 10 % max						-							-
no-load supply current	25 mA				40 mA		25 mA _{RMS}				30 mA _{RMS}		15 mA _{RMS} 30 mA _{RMS}	
load current	≤ 100 mA						-							3A-250 Vac 3A-30 Vdc (750 VA / 90 W)
leakage current	≤ 10 µA						-							
voltage drop	1,2V max						-							
output type	static DECOU®						relay							
switching frequency	500 Hz						25 Hz							
power on delay	100 ms													
timing functions	from 0,1s to 10s, deley ON, deley OFF, one shot													
supply electrical protections	polarity reversal, transient						transient (AC), over voltages (DC)							
output protection	Short circuit (with hold)						-							
temperature range	- 25°C...+ 70°C (without freeze)			- 25°C... + 60°C	- 25°C...+ 70°C (without freeze)				- 25°C... + 60°C	- 25°C...+ 70°C				
temperature drift	10 % Sr													
protection degree	IP65 (EN60529) ⁽³⁾													
external light interference	≥ 5.000 lux (incandescent lamp)		≥ 10.000 lux (incandescent lamp)		≥ 5.000 lux (incandescent lamp)				≥ 10.000 lux (incandescent lamp)		≥ 5.000 lux (incandescent lamp)		10.000 lux (incandescent lamp)	
emitter LEDs	-													green (supply) red (dist. x 2)
receiver LEDs	rear red (output state), superior red (alignment), green (stable signal)													
housing material	polycarbonate (glass fiber reinforced)													
lenses material	plastic													
weight (approximate)	145 g without fixing slide / 165 g with fixing slide													

⁽¹⁾ With 100 x 100 mm white matt paper EG=1.5 ⁽²⁾ With standard reflector Ø 80 mm (RL110 supplied seperately) ⁽³⁾ Protection guaranteed only with plug cable well mounted

electrical diagrams of the connections

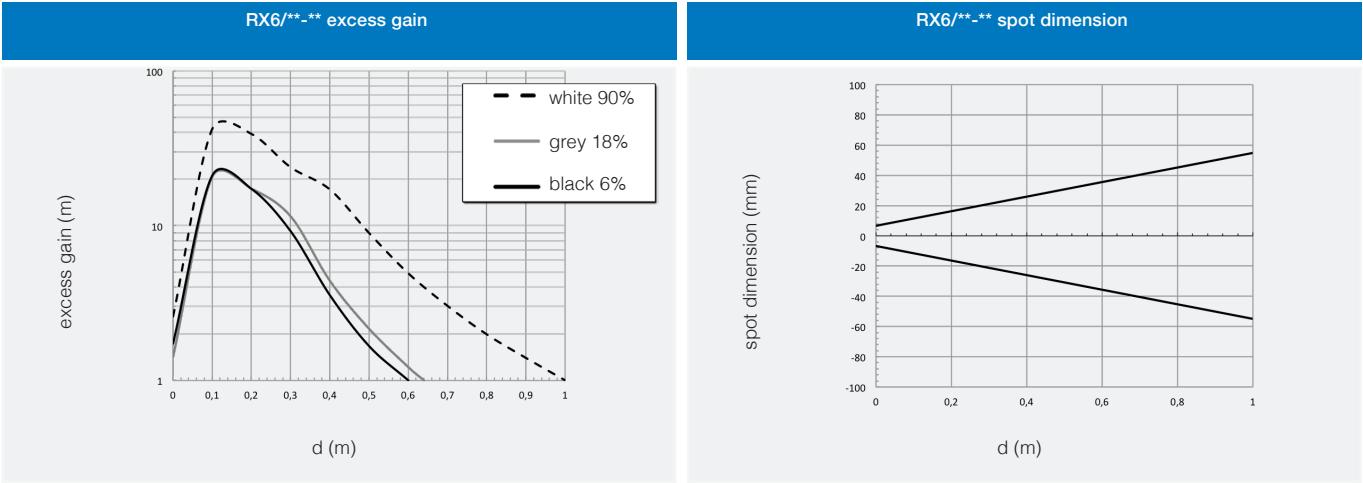


plug

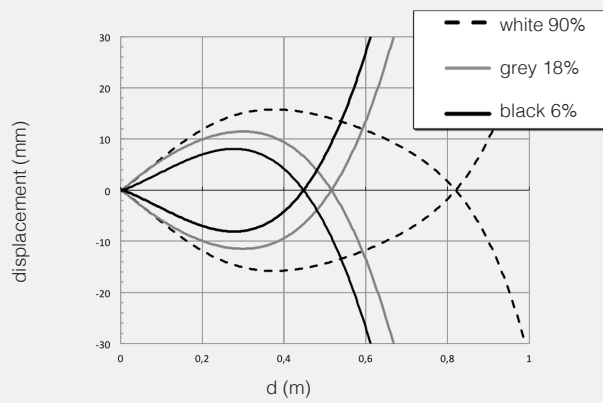


response diagrams

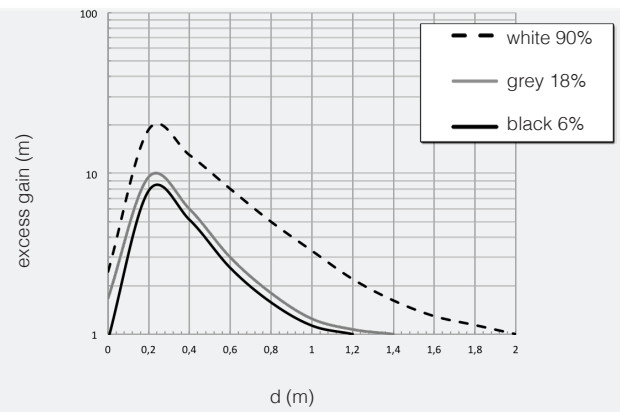
direct diffuse models



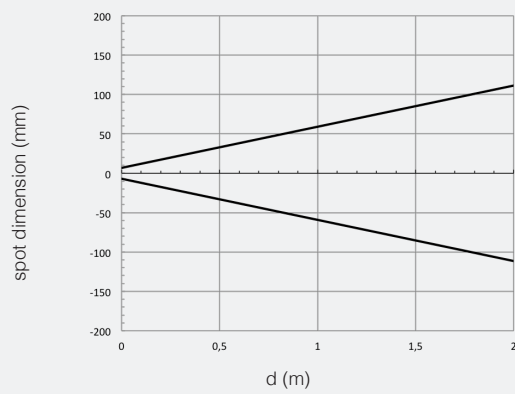
RX6/**-** parallel displacement



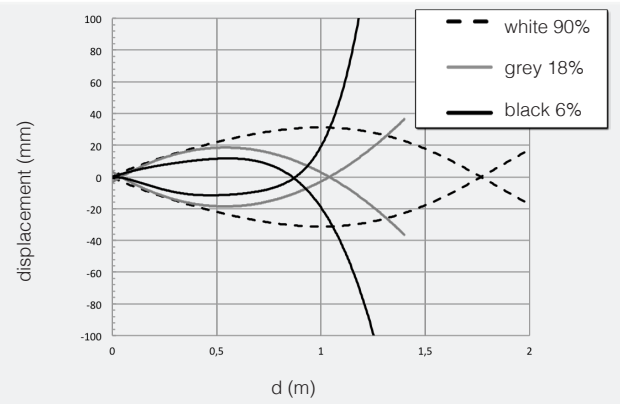
RX8/**-** excess gain



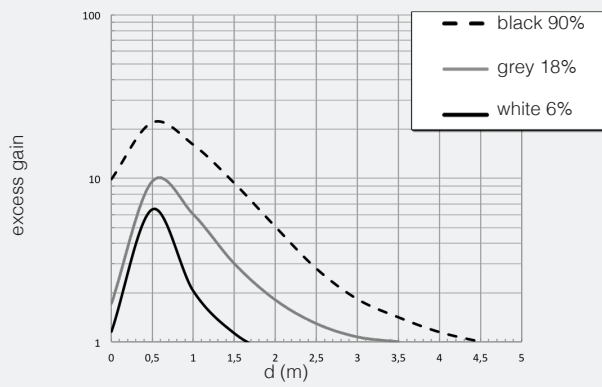
RX8/**-** spot dimension



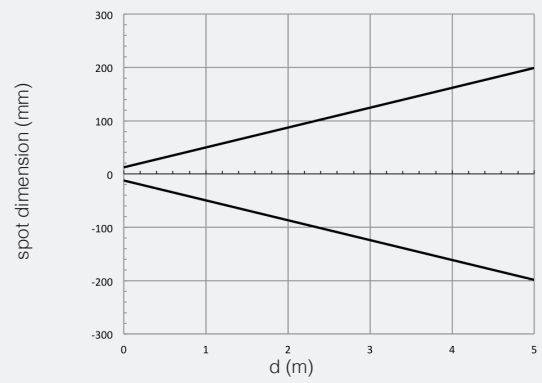
RX8/**-** parallel displacement



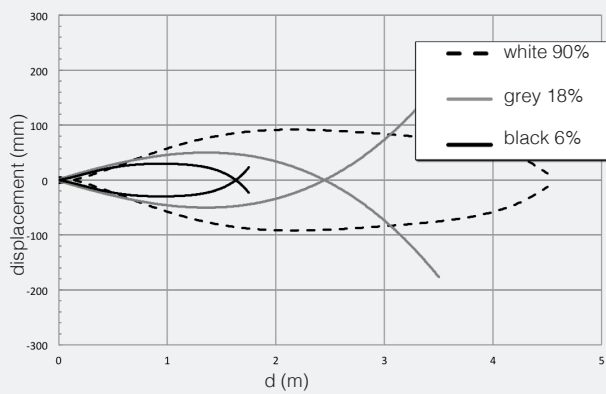
RX8/**-**37 excess gain



RX8/**-**37 spot dimension



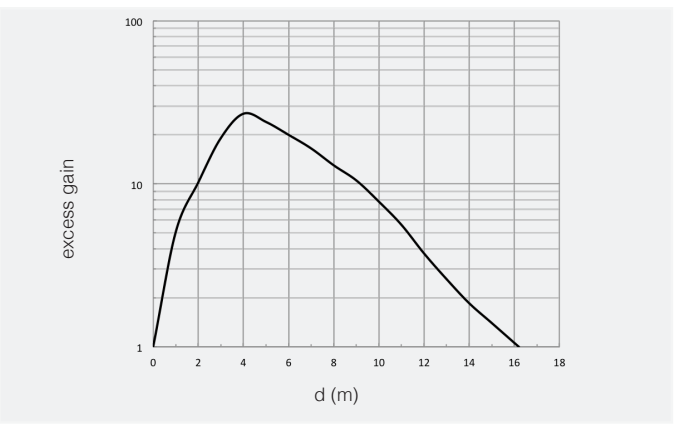
RX8/**-**37 parallel displacement



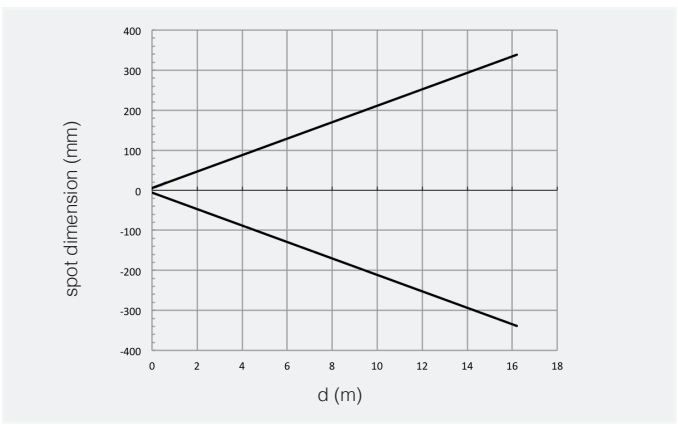
response diagrams

retro-reflective models

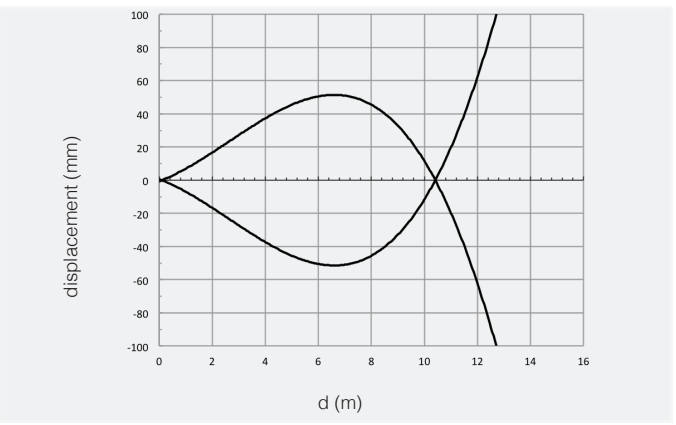
RXC/**-**excess gain



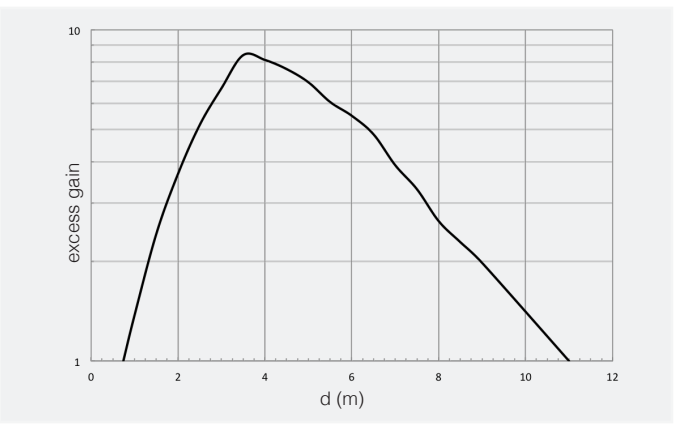
RXC/**-** spot dimension



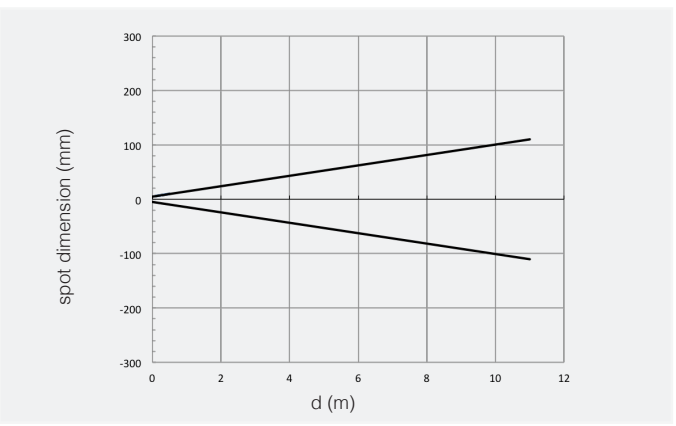
RXC/**-** parallel displacement



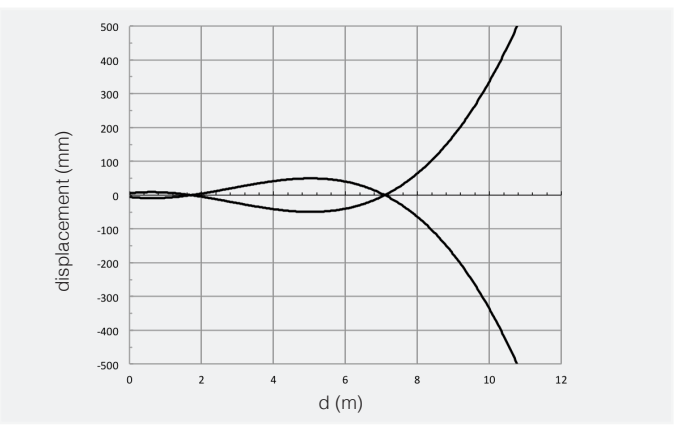
RXC/**-** excess gain



RXC/**-**spot dimension



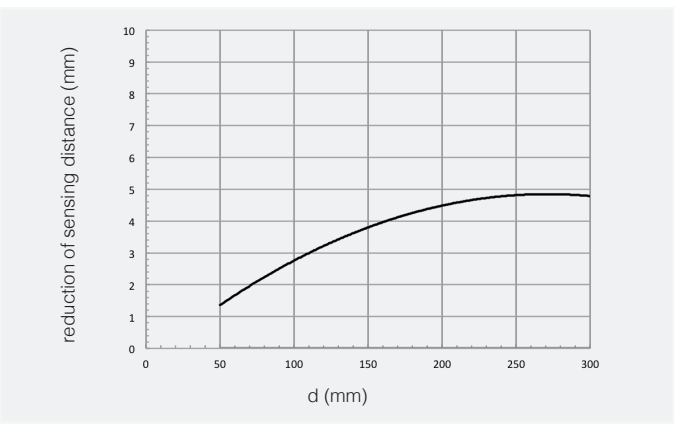
RXC/**-** parallel displacement



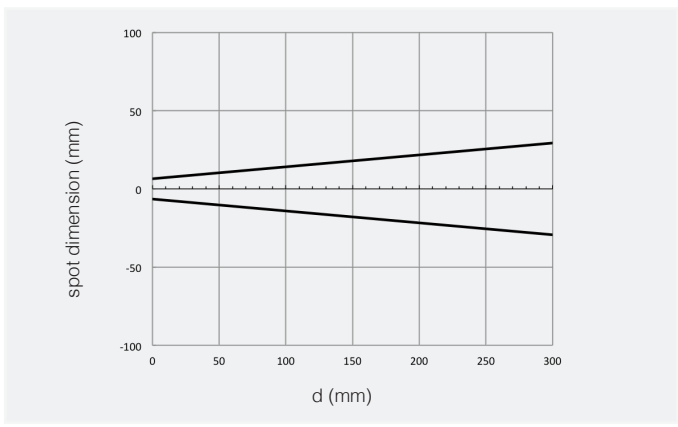
response diagrams

background suppression models

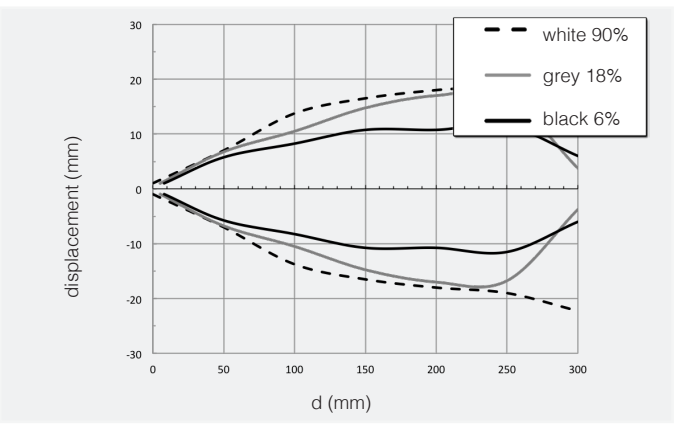
RXS/**-** reduction of sensing distance



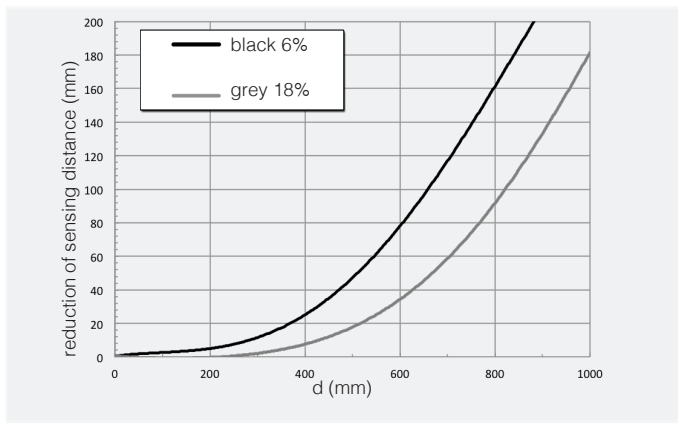
RXS/**-** spot dimension



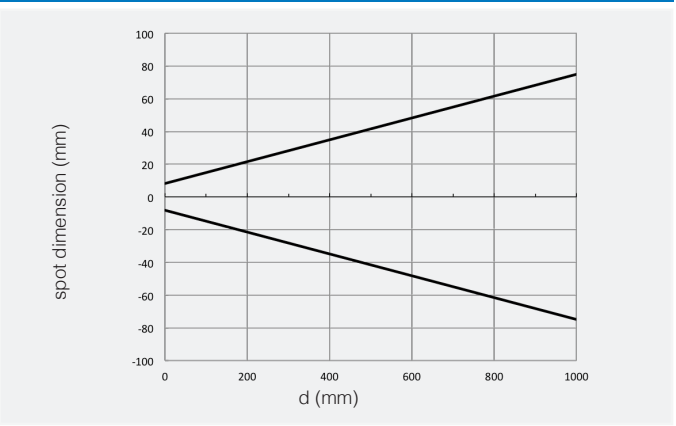
RXS/**-** parallel displacement



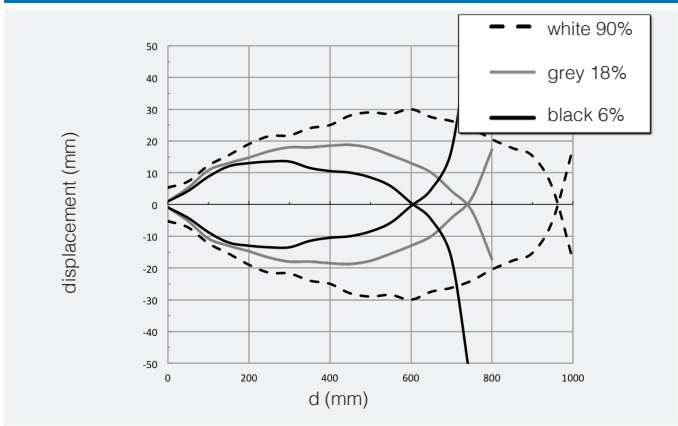
RXL/**-** reduction of sensing distance



RXL/**-**spot dimension



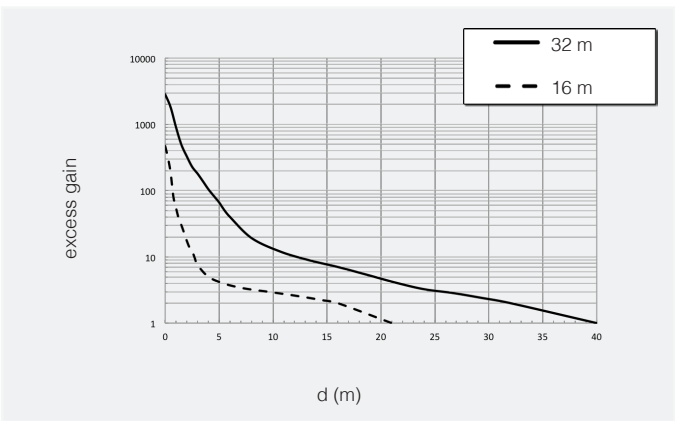
RXL/**-** parallel displacement



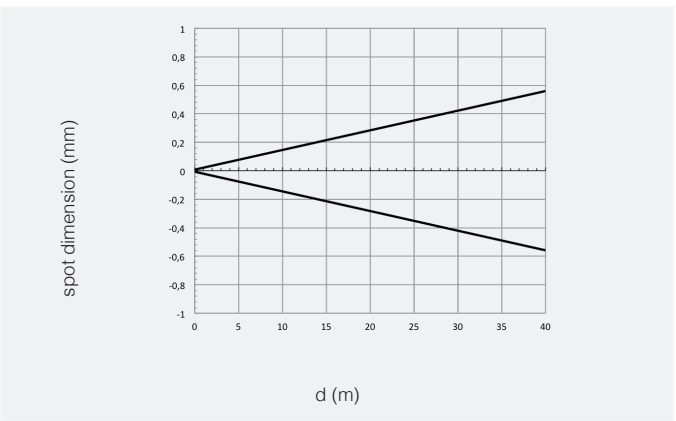
response diagrams

through-beam models

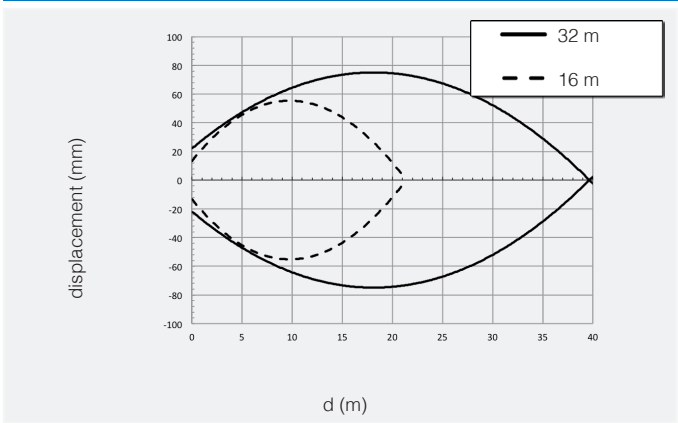
RXE/00-0* - RXR/00-0* excess gain



RXE/00-0* - RXR/00-0* spot dimension

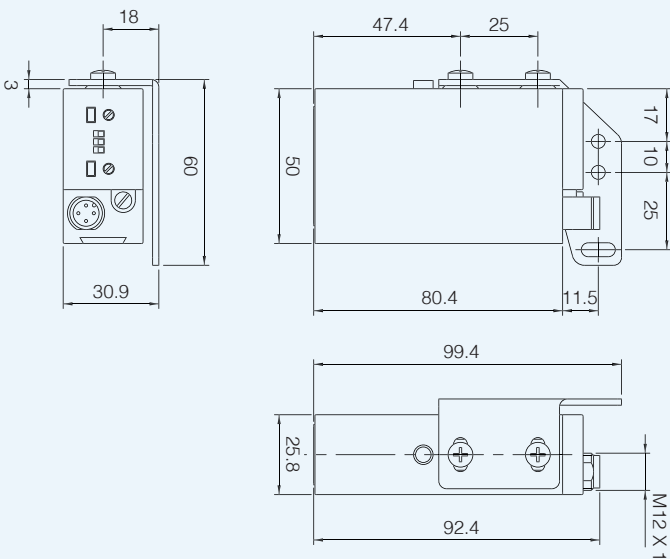


RXE/00-0* - RXR/00-0* parallel displacement



dimensions (mm)

RX*/**-*A



RX*/**-*B

