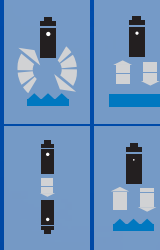




MV series

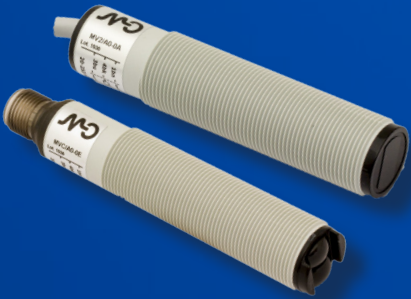
M18 AC multivoltage output
photoelectric sensors



M18 AC multivoltage
output

features

- Wide range of models: diffuse, retro-reflective, polarized, through-beam
- Through-beam models with high sensing range
- Retro-reflective models with polarized light (with visible beam)
- M12 plug cable exit in axial or right angle shape
- Low leakage current and high output current
- IP67 protection degree
- Complete protection against electrical damage



web contents



- Application notes
- Photos
- Catalogue / Manuals



code description

			MV 2 / A 0 - 0 A				
series	MV	M18 multivoltage photoelectric sensor					
type	2	100 mm diffuse reflection					
	4	200 mm diffuse reflection					
	6	400 mm diffuse reflection					
	C	4.5 m retro-reflective					
	P	3.5 m polarized					
	E	Emitter					
	R	16 m standard receiver					
	D	32 m high distance receiver					
output	A	NO output state					
	C	Uscita normalmente chiusa NC					
	0	Emettitore					
AC output	0	Uscita AC					
NC output	0	NC output state					
cable / plug output	A	Axial cable exit					
	E	M12 plug cable exit					



M18 AC multivoltage
output

available models

M18 multitension photoelectric sensor

function	distance	housing	axial cable exit		M12 plug exit	
			3 wires N0	3 wires NC	3 wires N0	3 wires NC
diffuse reflection	100 mm	plastic	MV2/A0-0A	MV2/C0-0A	MV2/A0-0E	MV2/C0-0E
	200 mm		MV4/A0-0A	MV4/C0-0A	MV4/A0-0E	MV4/C0-0E
	400 mm		MV6/A0-0A	MV6/C0-0A	MV6/A0-0E	MV6/C0-0E
retro-reflective	4.5 m		MVC/A0-0A	MVC/C0-0A	MVC/A0-0E	MVC/C0-0E
polarized	3.5 m		MVP/A0-0A	MVP/C0-0A	MVP/A0-0E	MVP/C0-0E
through-beam	16 / 32 m		MVE/00-0A		MVE/00-0E	
	16 m		MVR/A0-0A	MVR/C0-0A	MVR/A0-0E	MVR/C0-0E
	32 m		MVD/A0-0A	MVD/C0-0A	MVD/A0-0E	MVD/C0-0E

technical specification

	diffuse reflection			retro-reflective	
	standard				polarized
	MV2/*0-0*	MV4/*0-0*	MV6/*0-0*	MVC/*0-0*	MVP/*0-0*
nominal sensing distance	100 mm ⁽¹⁾	200 mm ⁽¹⁾	400 mm ⁽²⁾	4.5 m ⁽³⁾	3.5 m ⁽³⁾
emission	infrared (880 nm)				red (660 nm)
tollerance	+15...-5 % Sn				
hysteresis	≤ 10 %				
repeatability	5 %				
operating voltage	20...253 Vac / 50...60 Hz				
ripple	≤ 10 %				
no-load supply current	≤ 30 mA _{RMS}				
load current	5...300 mA _{RMS} (Ta = 50°C)				
inrush current	6 A (Ton = 10 ms)				
leakage current	1.5 mA _{RMS} max. (Vtaggio = 250 Vac)				
voltage drop	3 V max. IL = 300 mA				
output type	TRIAC				
switching frequency	25 Hz				
power on delay	200 ms				
temperature range	- 25°C...+ 70°C (without freeze)				- 25°C...+ 60°C
temperature drift	≤ 10 % Sr				
protection degree	IP67 (EN60529) ⁽⁴⁾				
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				
housing material	PBT (plastic housing) / polycarbonate (cable exit)				
lenses material	PMMA				
tightening torque	1 Nm				
weight (approximate)	30 g connector / 100 g cable				

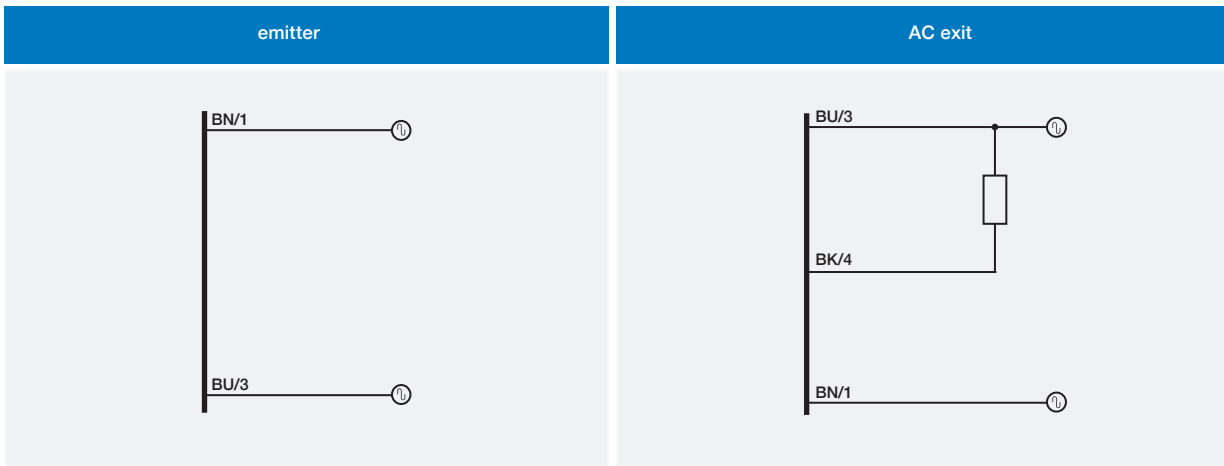
⁽¹⁾ With 100x100 mm white matt paper ⁽²⁾ With 200x200 mm white matt paper ⁽³⁾ With standard reflector Ø80 mm (RL110 supplied seperately) ⁽⁴⁾ Protection guaranteed only with plug cable well mounted



	through-beam	
	standard	high distance
	M*E/00-0* + M*R/*0-0*	M*E/00-0* + M*D/*0-0*
		
nominal sensing distance	16 m	32 m
emission	infrared (880 nm)	
minimum detectable object	Ø 7,5 mm	
tollerance	see Sr (glossary)	
hysteresis	≤ 10 %	
repeatability	5 %	
operating voltage	20...253 Vac / 50...60 Hz	
no-load supply current	≤ 30 mA _{RMS} (emitter), 15 mA _{RMS} (receiver)	
load current	5...300 mA _{RMS} (Ta = 50°C)	
inrush current	6 A (Ton = 10 ms)	
leakage current	1,5 mA _{RMS} max. (Vomaggio = 250 Vac)	
voltage drop	3 V max. IL = 300 mA	
output type	TRIAC	
switching frequency	25 Hz	
power on delay	200 ms	
temperature range	- 25°C...+ 70°C (without freeze)	
temperature drift	≤ 10 % Sr	
protection degree	IP67 (EN60529) ⁽¹⁾	
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	PBT (plastic) / polycarbonate (cable exit)	
lenses material	PMMA	
tightening torque	1 Nm	
weight (approximate)	30 g plug / 100 g cable	

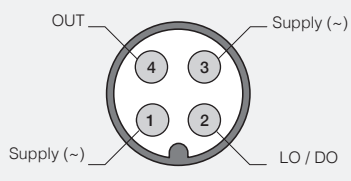
⁽¹⁾ Protection guaranteed only with plug cable well mounted

electrical diagrams of the connections





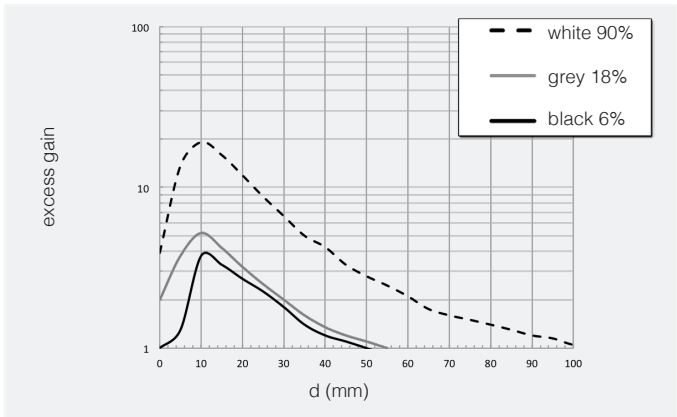
MQ background suppression



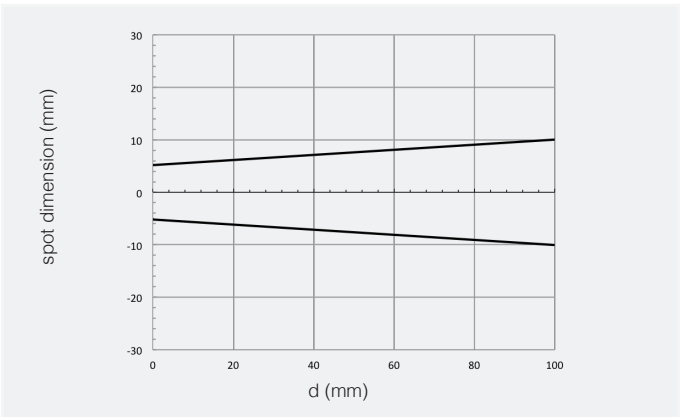
response diagrams

diffuse reflection models

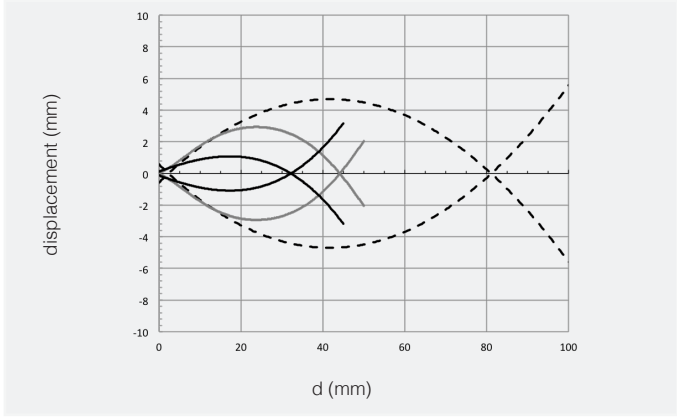
MV2/00-** excess gain



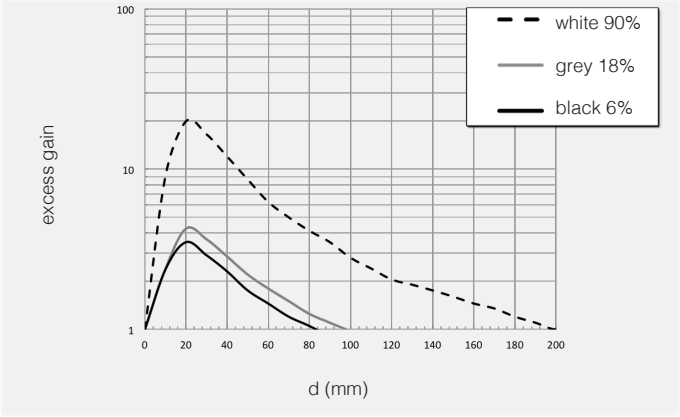
MV2/00-** spot dimension



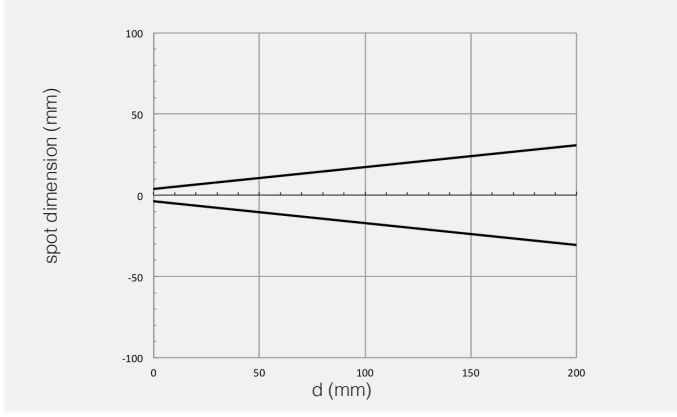
MV2/00-** parallel displacement



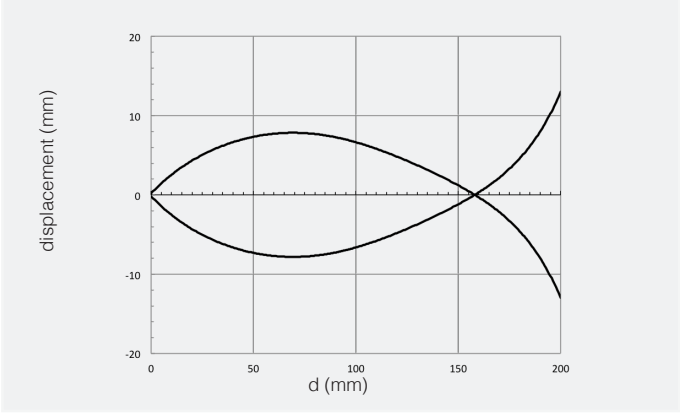
MV4/00-** excess gain



MV4/00-** spot dimension

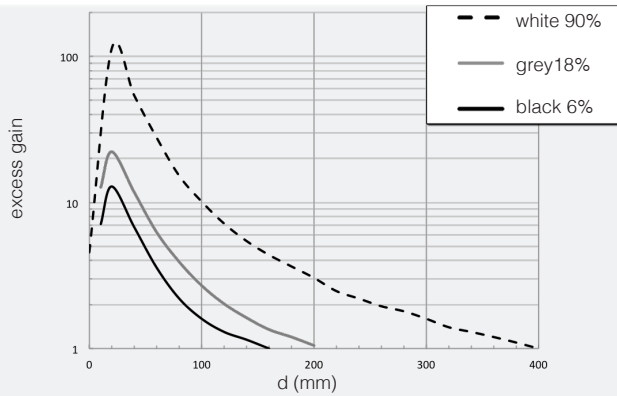


MV4/00-** parallel displacement

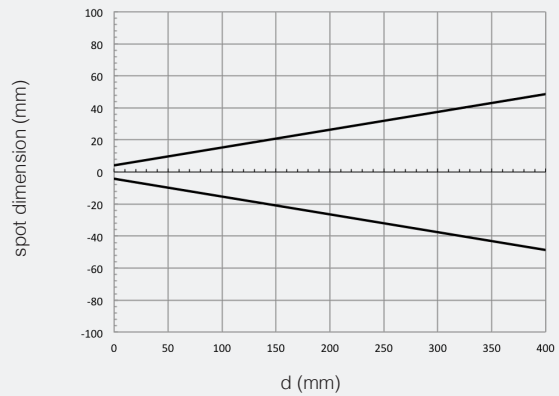




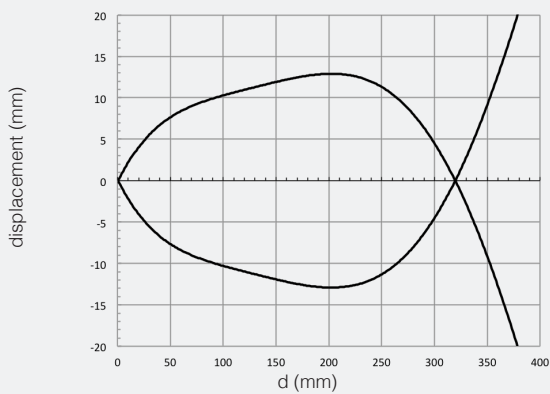
MV6/0*-** excess gain



MV6/0*-** spot dimension



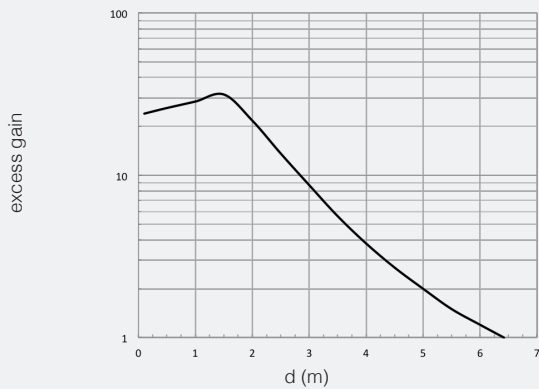
MV6/0*-** parallel displacement



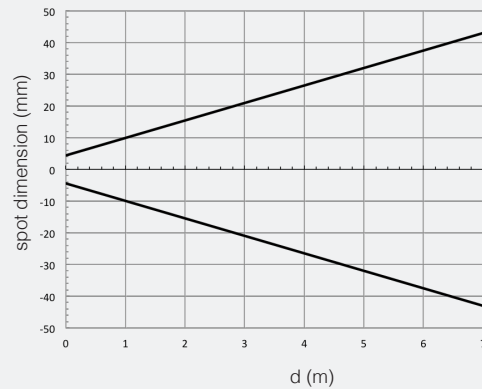
response diagrams

retro-reflective models (diagrams detected using RL110)

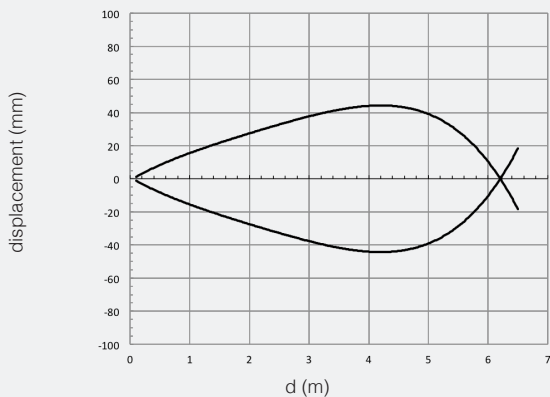
MVC/**-** excess gain



MVC/**-** spot dimension

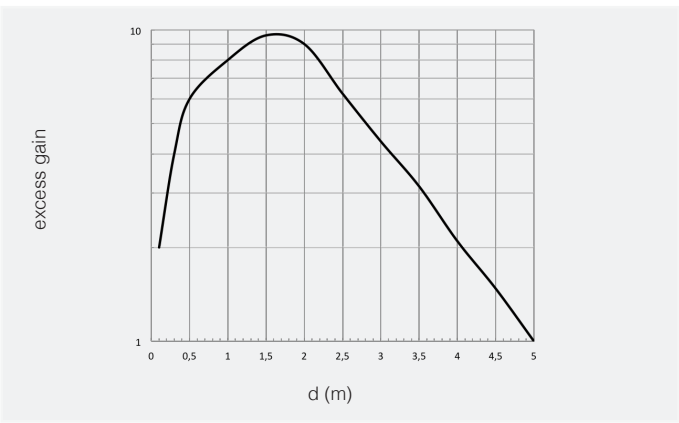


MVC/**-** parallel displacement

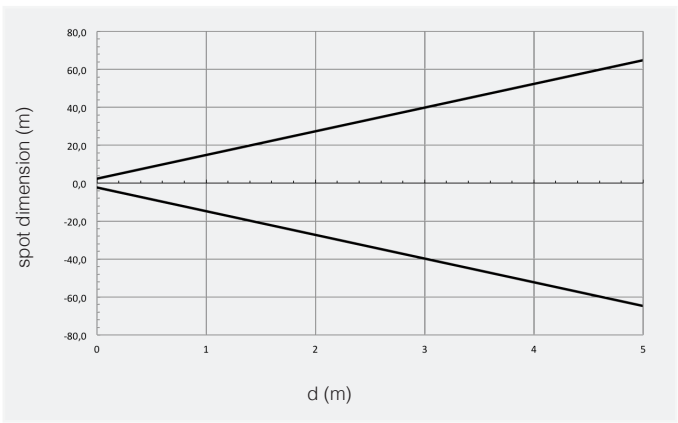




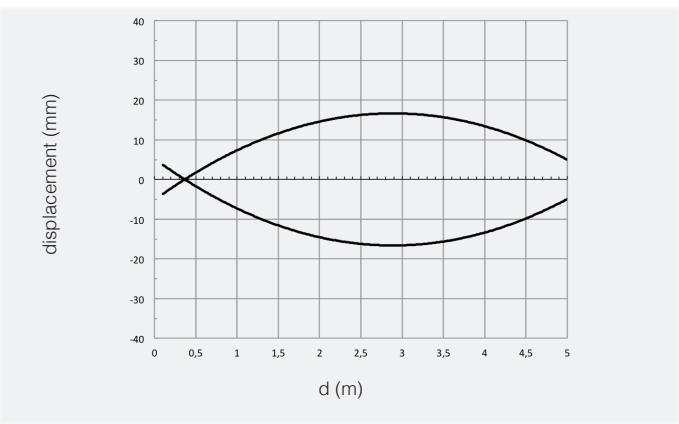
MVP/**-** excess gain



MVP/**-** spot dimension



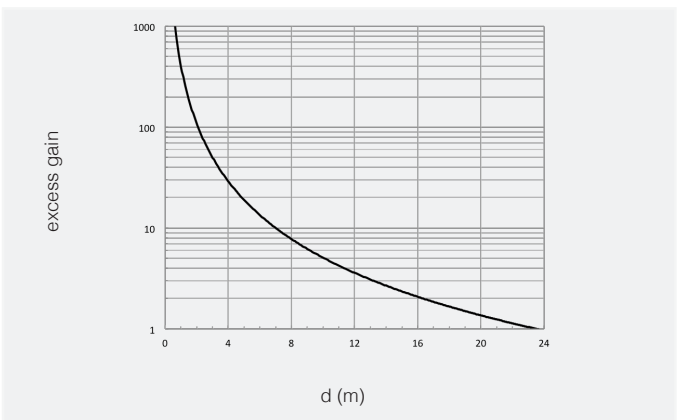
MVP/**-** parallel displacement



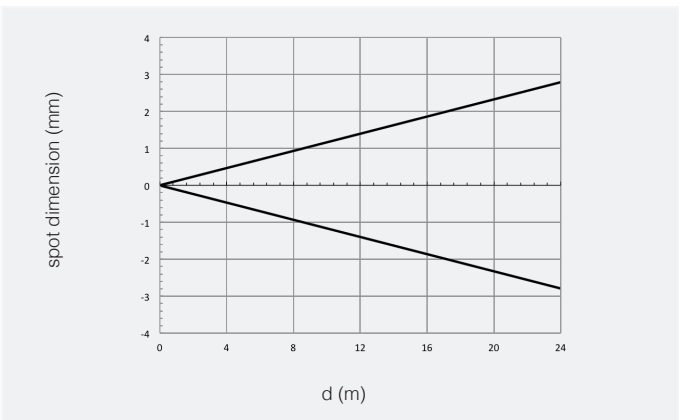
response diagrams

through-beam models

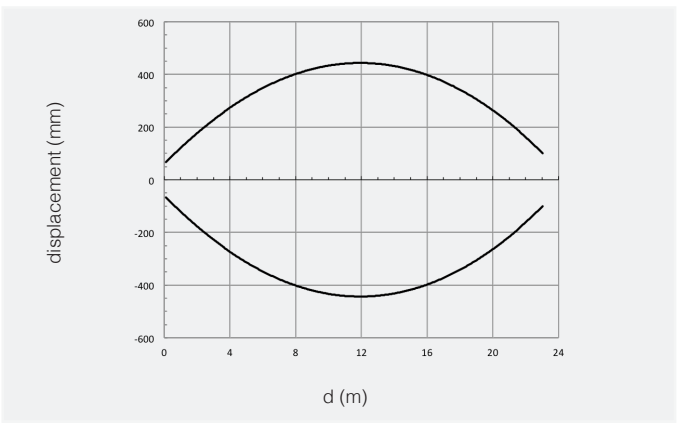
MVE/**-**- MVR/**-**- excess gain



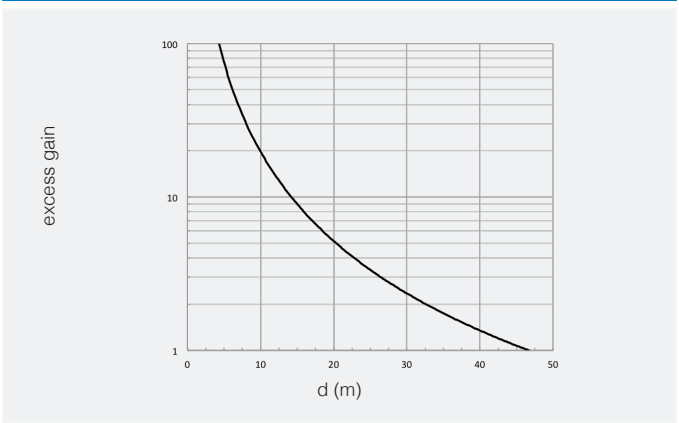
MVE/**-**- MVR/**-**- spot dimension



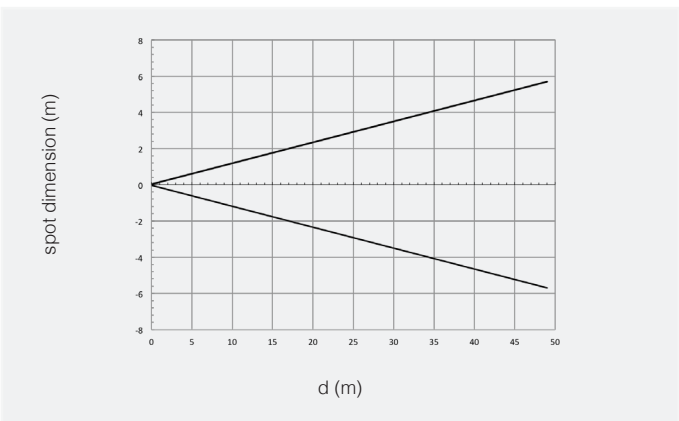
MVE/**-**- MVR/**-**- parallel displacement



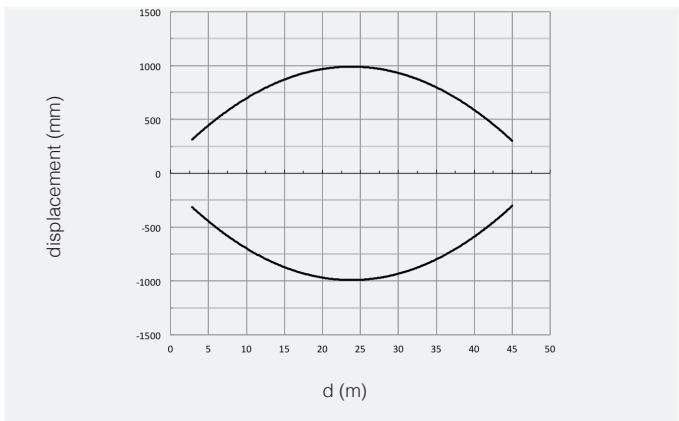
MVE/**-**- MVD/**-**- excess gain



MVE/**-**- MVD/**-**- spot dimension



MVE/**-**- MVD/**-**- parallel displacement





M18 AC multivoltage
output

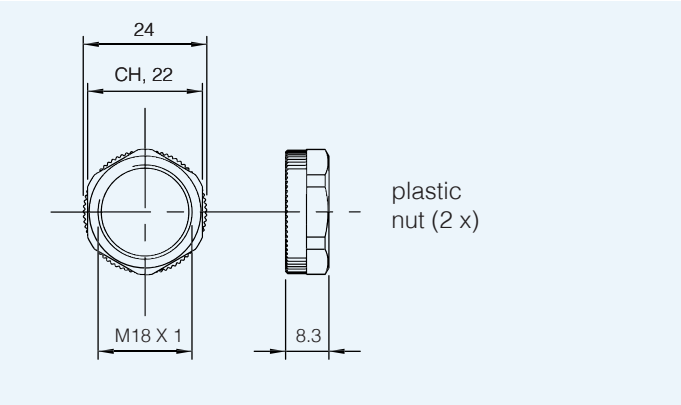
dimensions (mm)

axial models

MV*/0-*A	MV*/0-*E

dimensions (mm)

accessories included in all plastic models



dimensions (mm)

accessories included in all metallic models

