



# HE series

M8 miniaturized through-beam sensors DC



## features

- M8 through beam models with high switching frequency
- LED status indicator for all models
- Complete protection against electrical damages
- IP67 protection degree
- Stainless steel housing
- Supply voltage 10...30 Vdc
- Approvals: CE



## web contents



- Application notes
- Photos
- Catalogue / Manuals



M8 through-beam sensors DC

## code description

	HE	E	/	0	0	-	3	A
series	<b>HE</b>	M8 high switching frequency through beam sensors						
output	<b>E</b>	Emitter						
	<b>R</b>	Receiver						
output state	<b>0</b>	Emitter						
	<b>A</b>	NO output receiver						
	<b>C</b>	NC output receiver						
output logic	<b>0</b>	Emitter						
	<b>P</b>	PNP receiver						
	<b>N</b>	NPN receiver						
distance	<b>3</b>	Models with 10 kHz, 1 m sensing distance						
	<b>4</b>	Models with 1 kHz, 2 m sensing distance						
connect.	<b>A</b>	Cable exit 2 m						
	<b>F</b>	M8 plug cable exit						

## available models

model	distance (m)	switching frequency (kHz)	exit	PNP NO	NPN NO	PNP NC	NPN NC
emitter	1	10	cable	HEE/00-3A			
			M8	HEE/00-3F			
cable			HER/AP-3A	HER/AN-3A	HER/CP-3A	HER/CN-3A	
M8			HER/AP-3F	HER/AN-3F	HER/CP-3F	HER/CN-3F	
receiver	2	1	cable	HEE/00-4A			
			M8	HEE/00-4F			
cable			HER/AP-4A	HER/AN-4A	HER/CP-4A	HER/CN-4A	
M8			HER/AP-4F	HER/AN-4F	HER/CP-4F	HER/CN-4F	

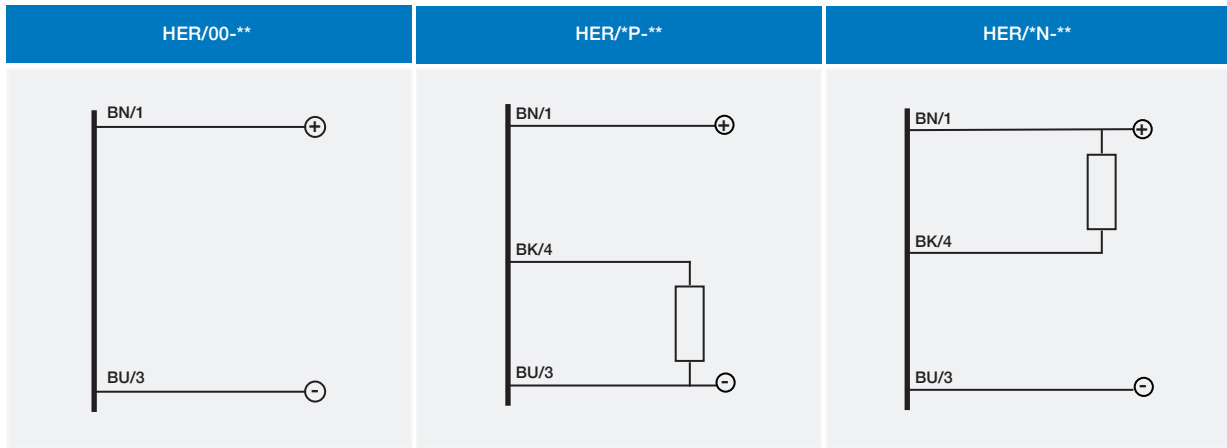
## technical specification

### through-beam models

	HEE/**-3*	HER/**-3*	HEE/**-4*	HER/**-4*
nominal sensing distance Sn	1 m (EG = 2)		2 m (EG = 2)	
emission	infrared (880 nm)	-	infrared (880 nm)	-
hysteresis	≤ 10 %			
repeatability	10 %			
operating voltage	10...30 Vdc, 30 Vdc max			
ripple	≤ 10 %			
no-load supply current	≤ 45 mA			
load current	≤ 100 mA			
leakage current	10 µA			
output voltage drop	≤ 2 V			
output type	-	NPN or PNP NO or NC	-	NPN or PNP NO or NC
switching frequency	10 kHz		1 kHz	
power on delay	-	≤ 100 ms	-	≤ 100 ms
power supply protections	polarity reversal, impulsive overvoltages			
EMC	in conformity with the EMC Directive according to EN 60947-5-2			
output protection	short circuit (autoreset)			
temperature range	- 25°C...+ 50°C			
temperature drift	≤ 10 %			
external light interference	3,000 lux (incandescent lamp), 5,000 lux (sunlight)			
protection degree	IP67 (EN60529) <sup>(1)</sup>			
LEDs	yellow (supply)	yellow (output active)	yellow (supply)	yellow (output active)
housing material	stainless steel			
optic material	plastic			
weight	15 g connector / 40 g cable			

<sup>(1)</sup> Protection guaranteed only with plug cable well mounted

# electrical diagrams of the connections

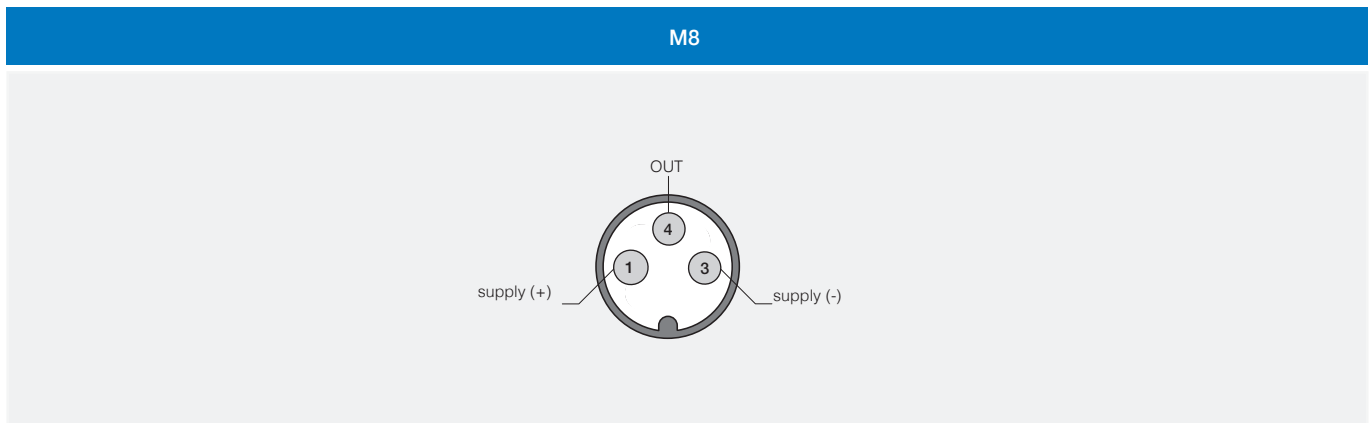


- BN brown
- BU blue
- BK black
- WH white
- PK pink
- GY gray

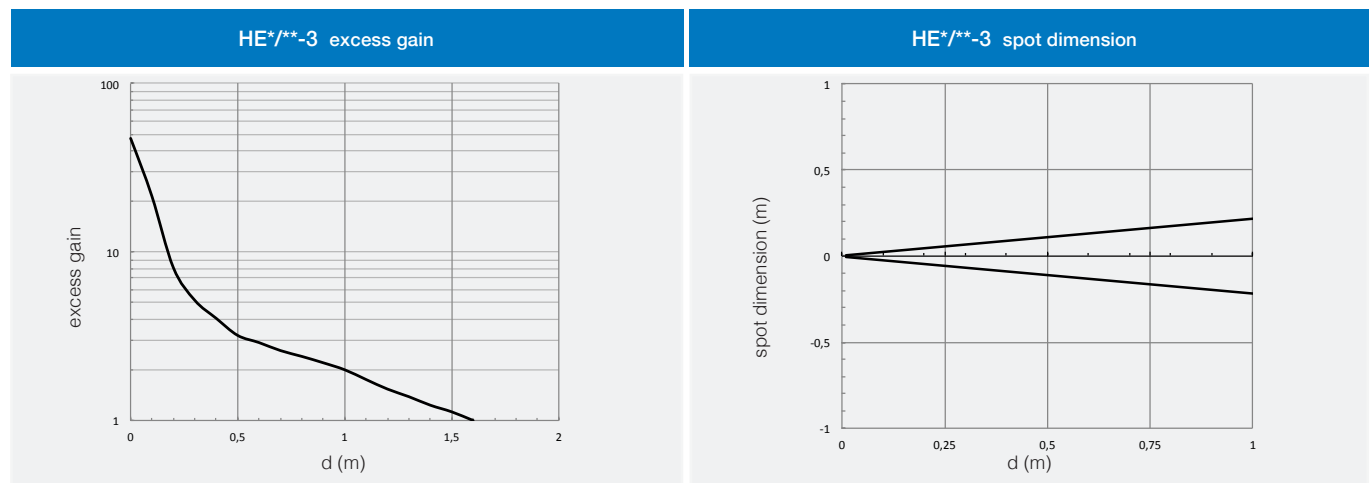


M8 through beam DC

## plug



## response diagram

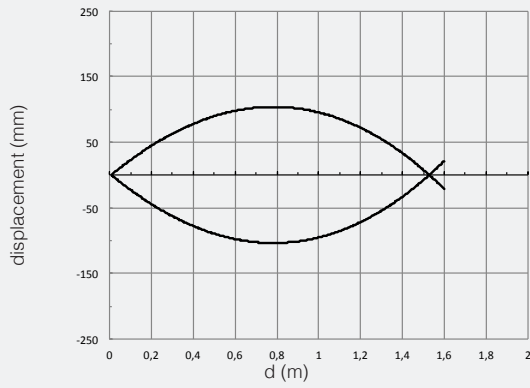




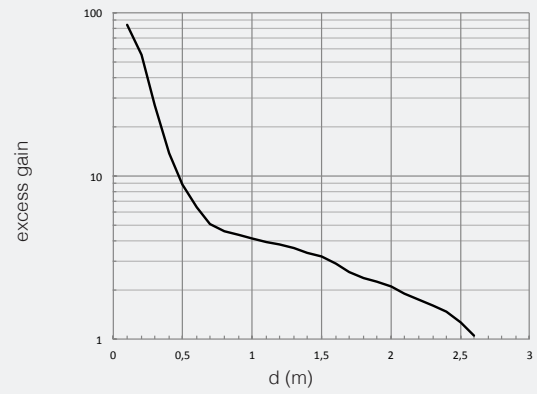
# response diagram

M8 through beam DC

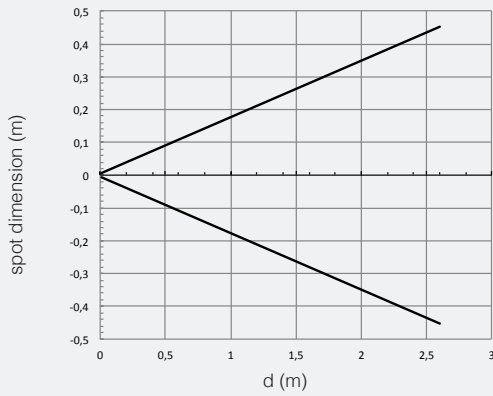
HE\*/\*\*-3 parallel displacement



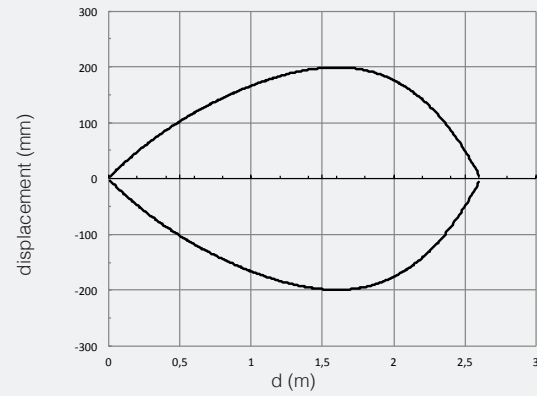
HE\*/\*\*-4 excess gain



HE\*/\*\*-4 spot dimension

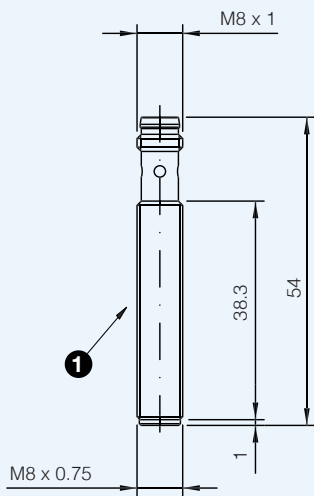


HE\*/\*\*-4 parallel displacement

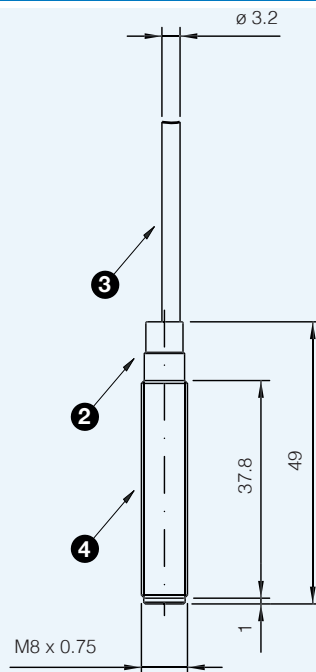


## dimensions (mm)

HE\*/\*\*-\*F

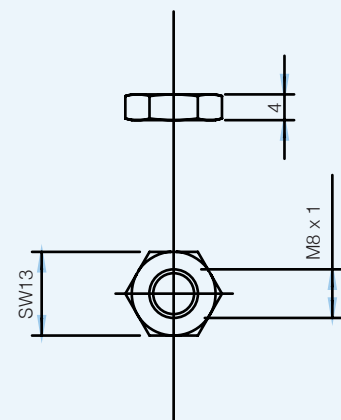


HE\*/\*\*-\*A



## dimensions (mm)

accessories included



metallic nut (2 x)

- 1 cylindrical threaded housing exit F
- 2 plastic cable exit

- 3 cable Ø 3,1
- 4 cylindrical threaded housing exit A

HE