

FS/FE 25-R

Through-beam photoelectric sensor



PRODUCT HIGHLIGHTS

- Test input for checking sensor pair function
- Sensor settings via teach-in and control input
- Simple alignment thanks to easily visible light spot
- Robust glass-fibre-reinforced plastic housings
- Durable laser printing

Optical data		Functions	
Limit range	0 ... 15 m	Indicator LED, green	Operating voltage indicator
Operating range	0 ... 13 m	Indicator LED, yellow	Switching output indicator
Type of light	LED, red, 632 nm	Sensitivity adjustment (receiver)	Via Teach-in button and control input
Light spot size	See diagram	Teach-in modes	Mode 1: during running process Mode 2: during standing process
		Adjustment possibilities (receiver)	N.O./N.C. via Teach-in button and control input Button lock via control input
		Default settings	Max. range and N.O.
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC ¹	Dimensions	34 x 20 x 12 mm
No-load current, I ₀	≤ 30 mA	Enclosure rating	IP 69K & IP 67 ²
Output current, I _e	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U _B / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See Selection Table
Power On Delay	< 300 ms	Ambient temperature: operation	-20 ... +60 °C ³
Switching output, Q	PNP/NPN (see Selection Table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	10 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (metal plug device ⁴)	10 g
Response time	500 µs	Weight (cable device)	40 g
Control input, IN (receiver)	+U _B = teach-in -U _B = button locked Open = normal operation	Vibration and impact resistance	EN 60947-5-2
Control input, Test (transmitter)	+U _B = Test (transmitter off) -U _B / Open = normal operation		

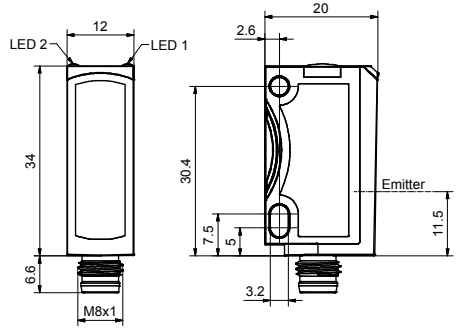
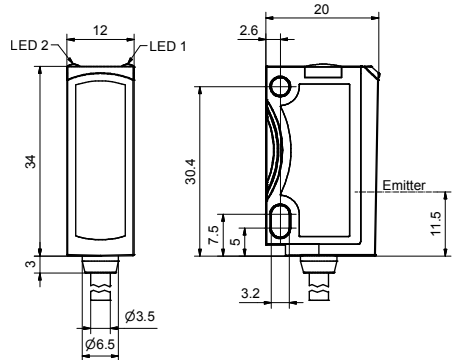
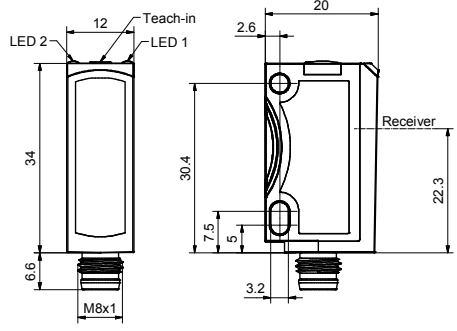
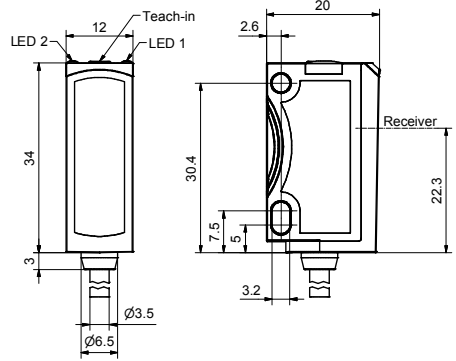
¹ Max 10 % ripple, within U_B, ~ 50 Hz / 100 Hz

² With connected IP 67 / IP 69K plug

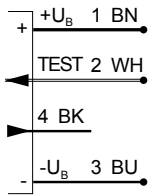
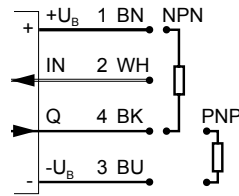
³ UL: -20 ... +50 °C

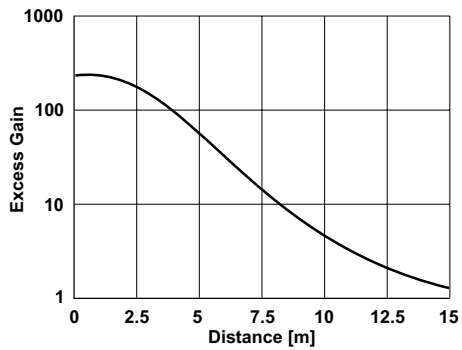
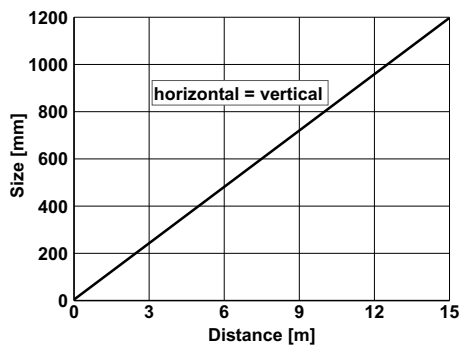
⁴ No Ecolab

Operating range	Switching output	Type of connection	Part number	Article number
0 ... 13 m	PNP	Metal plug, M8x1, 4-pin	FE 25-R-PS-M4M	605-21012
0 ... 13 m	NPN	Metal plug, M8x1, 4-pin	FE 25-R-NS-M4M	605-21013
0 ... 13 m	—	Metal plug, M8x1, 4-pin	FS 25-R-M4M	605-11006
0 ... 13 m	PNP	Cable, 2 m, 4-wire	FE 25-R-PS-K4	605-21001
0 ... 13 m	NPN	Cable, 2 m, 4-wire	FE 25-R-NS-K4	605-21003
0 ... 13 m	—	Cable, 2 m, 4-wire	FS 25-R-K4	605-11001

Plug connection (transmitter)	Cable connection (transmitter)
 153-00852	 153-00851
Plug connection (receiver)	Cable connection (receiver)
 153-00854	 153-00853

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Connection, transmitter, 4-pin	Connection, receiver, 4-pin
 154-00315	 154-00312

Functional reserves	Light spot size
 155-01370	 155-01371

Accessories			
Connection cables	From Page A-38	Brackets	From Page A-4