## FS/FE 55-R

## Photoelectric through-beam sensor



## PRODUCT HIGHLIGHTS

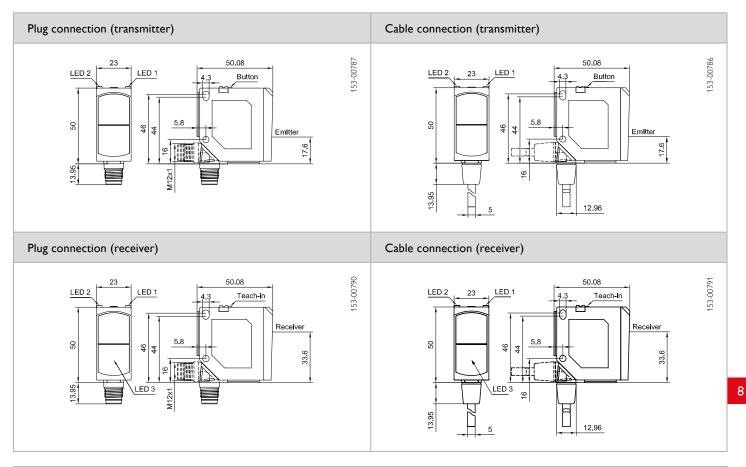
- Alignment indicator and easily visible light spot for simple alignment of the through-beam system
- Test input to check sensor pair function
- Sensor adjustment via teach-in and control input
- Plug and cable connection rotatable

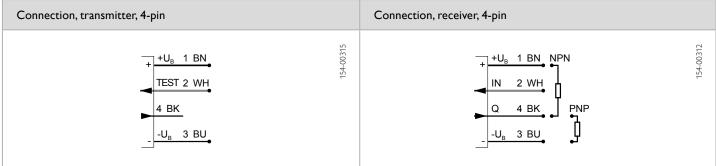
Optical data		Functions		
Limit range	0 25 m	Indicator LED, green	Operating voltage indicator	
Operating range	0 20 m	Indicator LED, yellow	Switching output indicator /	
Type of light	LED, red, 640 nm		contamination indicator	
Light spot size	See diagram	Indicator LED, red (receiver)	Alignment indicator	
		Sensitivity adjustment (receiver)	Via Teach-in button and control input	
		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 <sub>B</sub>	10 30V DC <sup>1</sup>	Dimensions	50 x 50.1 x 23 mm	
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>2</sup>	
Output current, le	≤ 100 mA	Material, housing	PC-ABS	
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection (Q)	Material, front screen	PMMA	
		Type of connection	See selection table	
Protection Class	2	Ambient temperature: operation	-20 +60 °C <sup>3</sup>	
Power On Delay	< 300 ms	Ambient temperature: storage	-20 +80 °C	
Switching output, Q	PNP/NPN (see selection table)	Weight (plug device)	35 g	
Output function	N.O./N.C.	Weight (cable device)	125 g	
Switching frequency, f (ti/tp 1:1)	≤ 500 Hz	Vibration and impact resistance	EN 60947-5-2	
Response time	1 ms	· · · · · · · · · · · · · · · · · · ·		
Control input, IN (receiver)	$+U_{B} = \text{teach-in}$ $-U_{B} = \text{button locked}$ Open = normal operation			
Control input,TEST (transmitter)	+U <sub>B</sub> = Test (transmitter off) -U <sub>B</sub> / Open = normal operation			

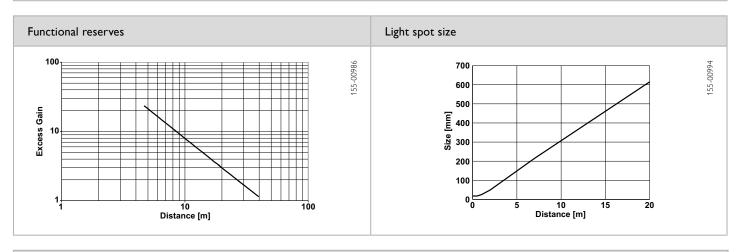
 $^1$  Max. 10 % ripple, within U  $_{\rm B'}$   $\sim 50$  Hz / 100 Hz  $^{-2}$  With connected IP 67 / IP 69K plug  $^{-3}$  UL: max. +45 °C

Operating range	Switching output	Type of connection	Part number	Article number
0 20 m	PNP	Plug, M12x1, 4-pin	FE 55-R-PS-L4	620-21000
0 20 m	NPN	Plug, M12x1, 4-pin	FE 55-R-NS-L4	620-21001
0 20 m	_	Plug, M12x1, 4-pin	FS 55-R-L4	620-11000
0 20 m	PNP	Cable, 3 m, 4-wire	FE 55-R-PS-K4	620-21003
0 20 m	NPN	Cable, 3 m, 4-wire	FE 55-R-NS-K4	620-21004
0 20 m		Cable, 3 m, 4-wire	FS 55-R-K4	620-11001









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