FS/FE 55-RL

Laser through-beam photoelectric sensor







ECOLAB



PRODUCT HIGHLIGHTS

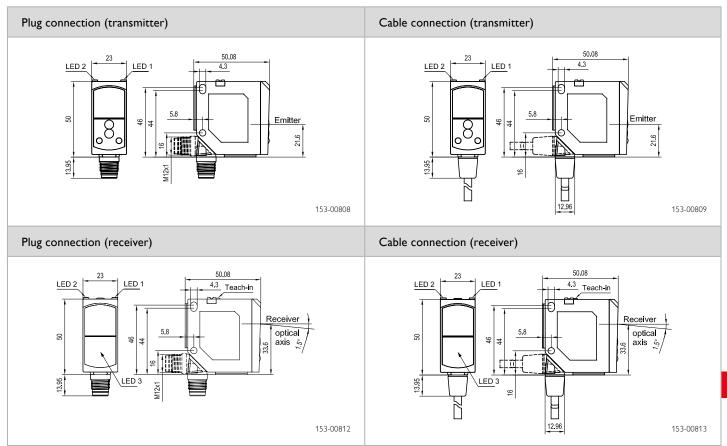
- Long range combined with precise laser light spot for extremely accurate small-part detection
- High switching frequency for the reliable detection of even the most rapid processes
- Sensor adjustment via teach-in and control input
- Plug and cable connection rotatable

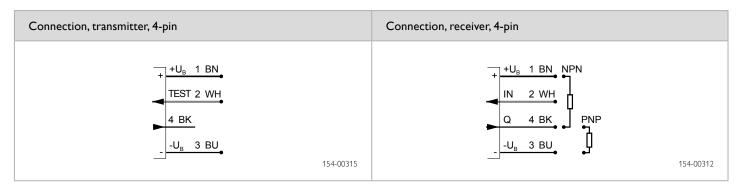
Optical data		Functions		
Limit range	0 30 m	Indicator LED, green	Operating voltage indicator	
Operating range Type of light	0 25 m Laser. red. 655 nm	Indicator LED, yellow	Switching output indicator / contamination indicator	
Light spot size	See diagram	Indicator LED, red (receiver)	Alignment indicator	
Laser Class	1	Sensitivity adjustment (receiver)	Via Teach-in button and control input	
(DIN EN 60825-1:2008-5)		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	$50 \times 50.08 \times 23 \text{ mm}^3$	
No-load current, I ₀	≤ 30mA	Enclosure rating	IP 69K & IP 67 ²	
Output current, le	≤ 100 mA	Material, housing	PC-ABS	
Protective circuits	Reverse-polarity protection, U _B /	Material, front screen	PMMA	
	short-circuit protection (Q)	Type of connection	See Selection Table	
Protection Class	2	Ambient temperature: operation	-20 +60 °C	
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)	≤ 3500 Hz	Vibration and impact resistance	EN 60947-5-2	
Response time	140 μs			
Control input, IN (receiver)	+U _B = teach-in -U _B = button locked Open = normal operation			
Control input, TEST (transmitter)	+U _B = Test (transmitter off) -U _B / Open = normal operation			

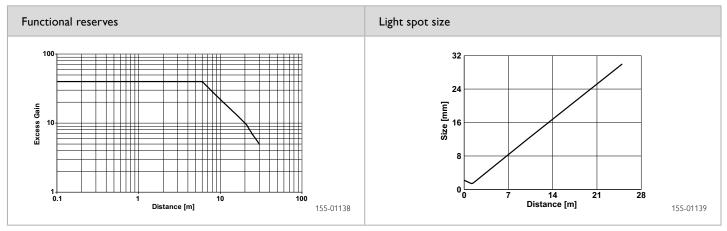
 $^{^{1}}$ Max. 10 % ripple, within U_B \sim 50 Hz / 100 Hz 2 With connected IP 67 / IP 69K plug

Operating range	Switching output	Type of connection	Part number	Article number
0 25 m	PNP	Plug, M12×1, 4-pin	FE 55-RL-PS-L4	620-21006
0 25 m	NPN	Plug, M12×1, 4-pin	FE 55-RL-NS-L4	620-21007
0 25 m	_	Plug, M12×1, 4-pin	FS 55-RL-L4	620-11002
0 25 m	PNP	Cable, 3 m, 4-wire	FE 55-RL-PS-K4	620-21009
0 25 m	NPN	Cable, 3 m, 4-wire	FE 55-RL-NS-K4	620-21010
0 25 m	_	Cable, 3 m, 4-wire	FS 55-RL-K4	620-11003









Accessories			
Connection cables	From Page A-32	Brackets	From Page A-4