FS/FE 25-RL

Through-beam laser sensor



CE 69 ECOLAB

PRODUCT HIGHLIGHTS

- Long range with small and compact housings
- Test input for checking sensor pair function
- Very small, easily visible laser light spot
- Sensor settings via teach-in and control input
- Robust glass-fibre-reinforced plastic housings
- Setting of smart functions via IO-Link

Optical data		Functions		
Limit range	0 20 m	Indicator LED, green	Operating voltage indicator	
Operating range	0 18 m	Indicator LED, yellow	Switching output indicator	
Type of light Light spot size	Laser, red, 650 nm See diagram	Sensitivity adjustment (receiver)	Via Teach-in button, control input and IO-Link	
Laser Class (IEC 60825-1)	1	Teach-in modes	Mode 1: during running process Mode 2: during standing process	
		Adjustment possibilities (receiver)	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input and IO- Link; Button lock via control input and IO-Link ;Wide variety of adjustment possibilities via IO-Link	
		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 69 & IP 67 ³	
Output current, le	≤ 100 mA	Material, housing	ABS	
Protective circuits	Reverse-polarity protection, U _R /	Material, front screen	PMMA	
	short-circuit protection (Q)	Type of connection	See selection table	
Protection Class	2	Ambient temperature: operation	-20 +60 °C ⁴	
Power On Delay	< 300 ms	Ambient temperature: storage	-20 +80 °C	
Switching output, Q	1× Auto-Detect (PNP/NPN) ²	Weight (metal plug device ⁵)	10 g	
Output function	N.O./N.C.	Weight (cable device)	40 g	
Switching frequency, f (ti/tp 1:1)	≤ 2000 Hz	Vibration and impact resistance	EN 60947-5-2	
Response time	250 μs			
Control input, IN (receiver)	$+U_{B} = \text{teach-in}$ $-U_{B} = \text{button locked}$	IO-Link		
	Open = normal operation	Communication mode	COM 2	
Control input, Test (transmitter)	+U _B = Test (transmitter off) -U _B / Open = normal operation	Min. cycle time	2.3 ms	
		SIO mode	compatible	
		Process bit length	16 Bit	
		Specification	1.1	

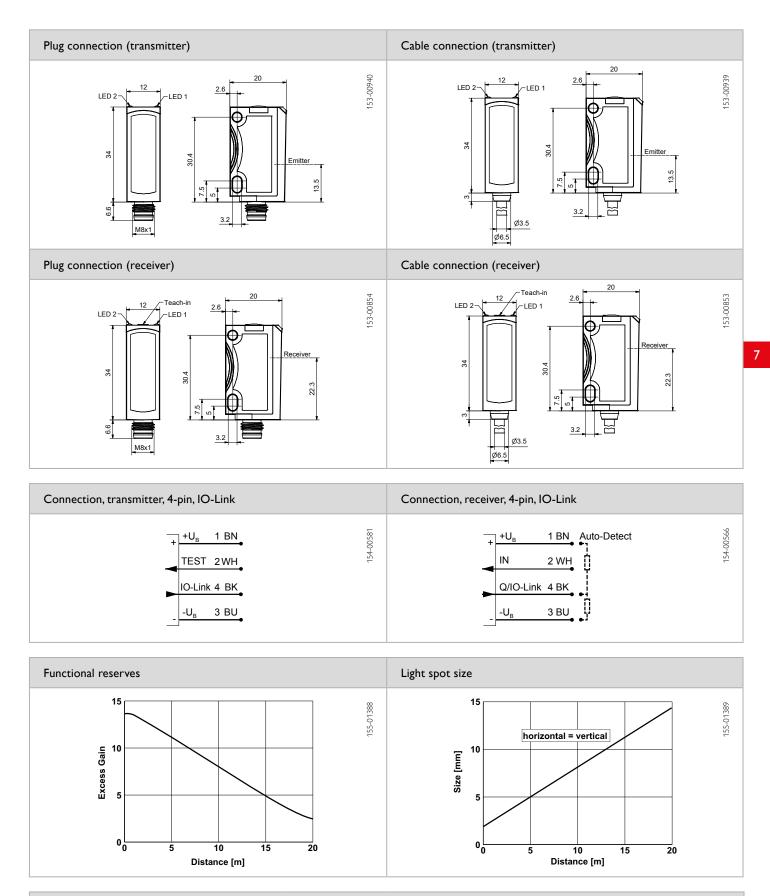
 1 Max. 10 % ripple, within U_{B'} \sim 50 Hz / 100 Hz 2 Auto-Detect, automatic PNP/NPN selection by the sensor, PNP or NPN fixed

3 With	connected IP	67 / IP 69 plug
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⁴ UL: -20 ... +50 °C ⁵ No Ecolab

Operating range	Switching output	Type of connection	Part number	Article number
0 18 m	Auto-Detect	Metal plug, M8×1, 4-pin, IO-Link ⊗	FE 25-RL-PNSL-M4M	605-21022
0 18 m	_	Metal plug, M8x1, 4-pin, IO-Link 🛛	FS 25-RL-L-M4M	605-11013
0 18 m	Auto-Detect	Cable, 2 m, 4-wire, IO-Link 🗞	FE 25-RL-PNSL-K4	605-21021
0 18 m		Cable, 2 m, 4-wire, IO-Link €	FS 25-RL-L-K4	605-11012





Accessories			
Connection cables Brackets	From Page A-46 From Page A-4	SensolO (901-01000)	From Page A-56