## FS/FE 25-RL

## Through-beam laser sensor









## **EC©L**AB





## PRODUCT HIGHLIGHTS

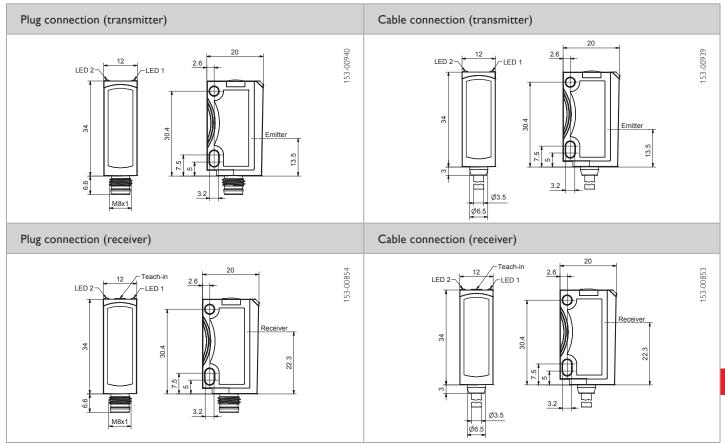
- Long range with small and compact housings
- Test input for checking sensor pair function
- Very small, easily visible laser light spot
- Sensor settings via teach-in and control input
- Robust glass-fibre-reinforced plastic housings
- Setting of smart functions via IO-Link

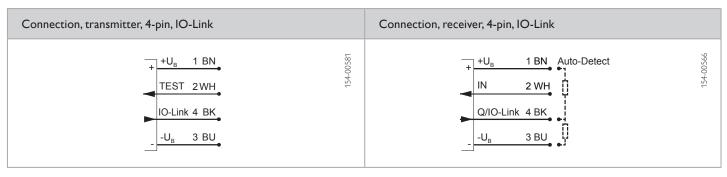
Optical data		Functions		
Limit range	0 20 m	Indicator LED, green	Operating voltage indicator	
Operating range	0 18 m	Indicator LED, yellow	Switching output indicator	
Type of light	Laser, red, 650 nm	Sensitivity adjustment (receiver)	Via Teach-in button, control input and	
Light spot size	See diagram		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 / PNF 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 <sub>R</sub>	10 30 V DC <sup>1</sup>	Dimensions	34 × 20 × 12 mm	
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69 & IP 67 <sup>3</sup>	
Output current, le	≤ 100 mA	Material, housing	ABS	
Protective circuits	Reverse-polarity protection, U <sub>B</sub> /	Material, front screen	PMMA	
	short-circuit protection (Q)	Type of connection	See selection table	
Protection Class	2	Ambient temperature: operation	-20 +60 °C⁴	
Power On Delay	< 300 ms	Ambient temperature: storage	-20 +80 °C	
Switching output, Q	1x Auto-Detect (PNP/NPN) <sup>2</sup>	Weight (metal plug device <sup>5</sup> )	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 <sub>B</sub> = teach-in -U <sub>B</sub> = button locked	IO-Link		
	Open = normal operation	Communication mode	COM 2	
Control input,Test (transmitter)	+U <sub>B</sub> = Test (transmitter off) -U <sub>o</sub> / Open = normal operation	Min. cycle time	2.3 ms	
	-O <sub>B</sub> / Open — normal operation	SIO mode	compatible	
		Process bit length	16 Bit	
		Specification	1.1	

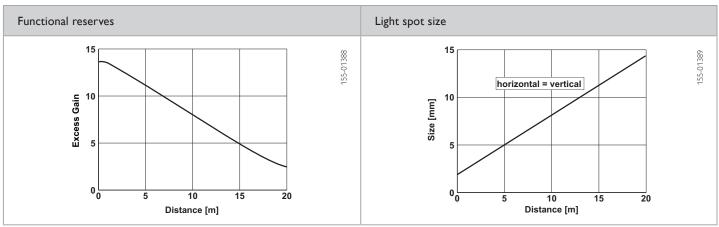
 $<sup>^{1}</sup>$  Max, 10 % ripple, within  $U_{g}$ ,  $\sim$  50 Hz / 100 Hz  $^{2}$  Auto-Detect, automatic PNP/NPN selection by the sensor, PNP or NPN fixed  $^{3}$  With connected IP 67 / IP 69 plug  $^{4}$  UL: -20 ... +50 °C  $^{5}$  No Ecolab

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 <b>⊗</b>	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	From Page A-38	SensolO (901-01000)	From Page A-56
Brackets	From Page A-4		