

# FT 25-RLH

Laser photoelectric proximity sensor with background suppression



## PRODUCT HIGHLIGHTS

- Precisely adjustable background suppression
- Reliable switching despite varying object colours and surfaces
- Reliable operation even with highly reflective backgrounds, thanks to SensoPart ASIC technology
- Particularly suitable for the detection of the smallest of objects
- Simple alignment thanks to easily visible light spot
- Robust glass-fibre-reinforced plastic housings

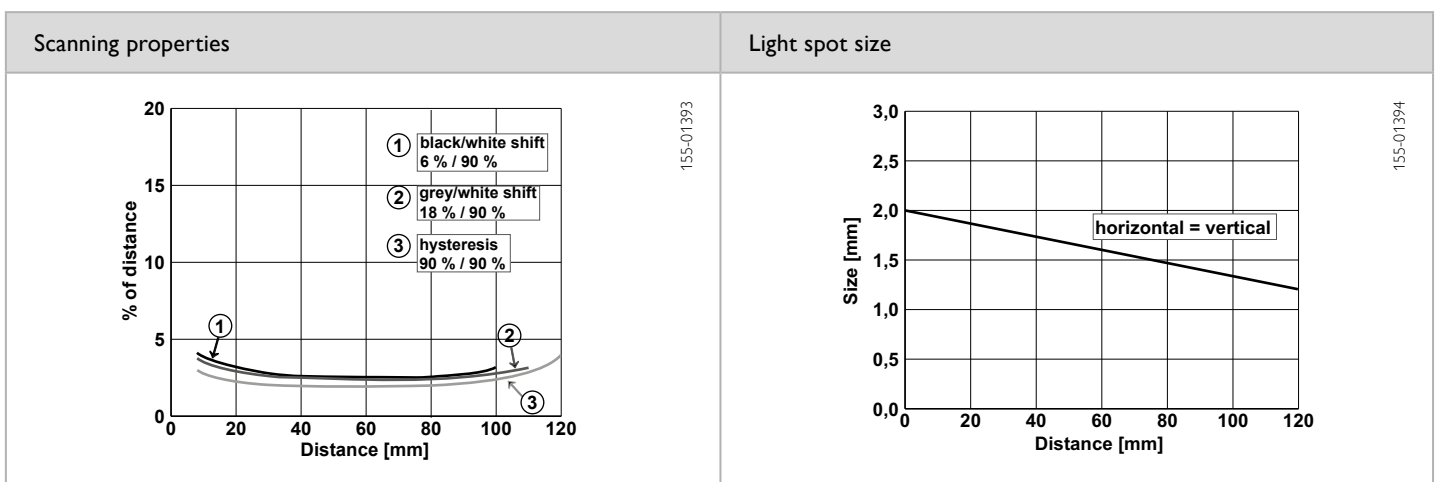
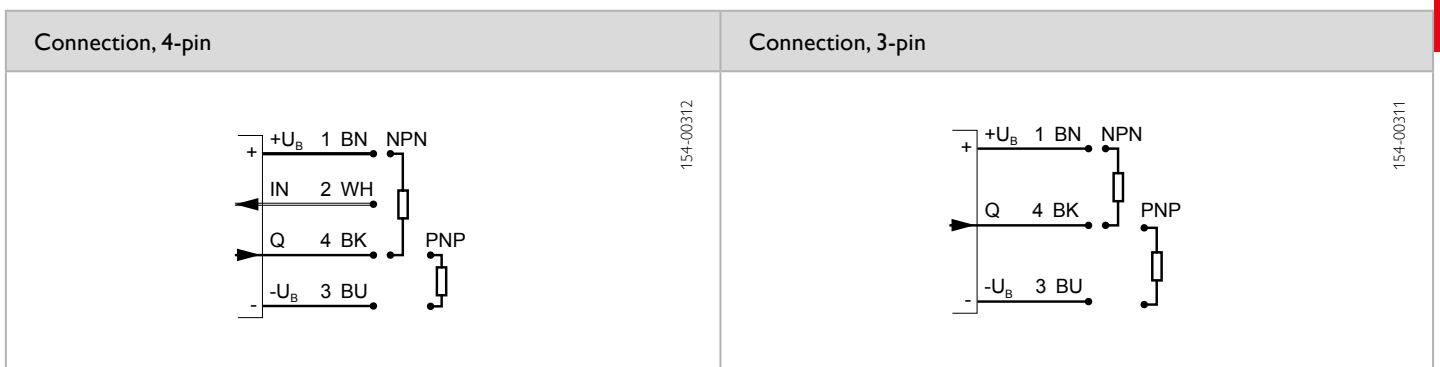
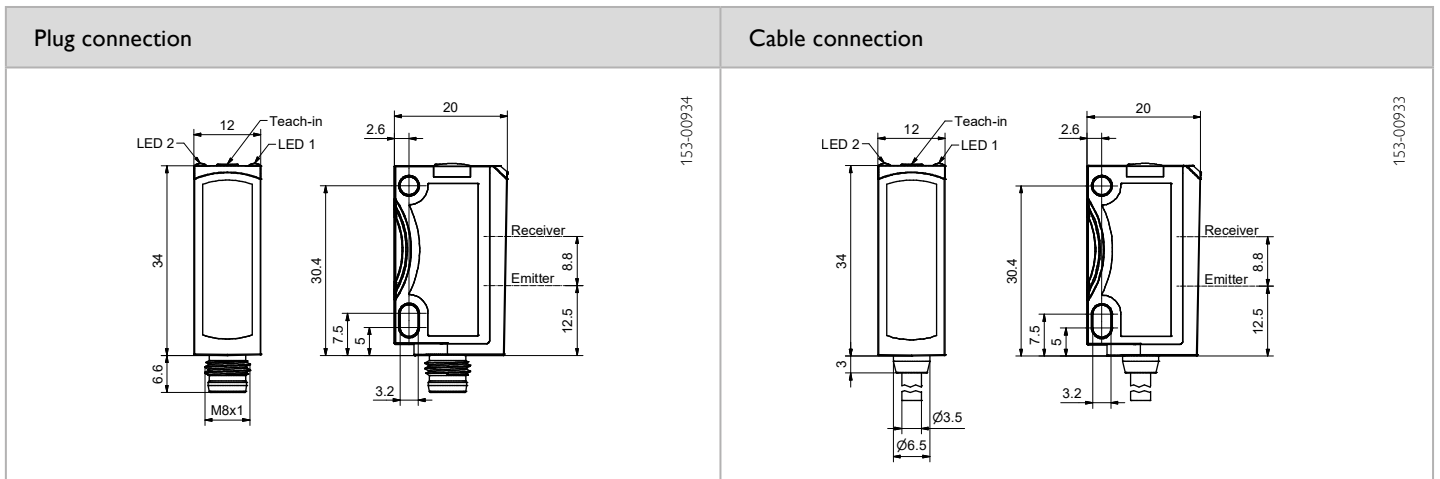
Optical data		Functions	
Scanning distance	4 ... 120 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Adjustment range	10 ... 120 mm <sup>1</sup>	Indicator LED, yellow	Switching output indicator
Type of light	Laser, red, 650 nm	Scanning distance adjustment	Via Teach-in button and control input
Light spot size	See diagram	Teach-in modes	Mode 1: during running process Mode 2: during standing process
Laser Class (IEC 60825-1)	1	Adjustment possibilities	N.O./N.C. via Teach-in button and control input Button lock via control input
		Default settings	Max. scanning distance and N.O.
Electrical data		Mechanical data	
Operating voltage, +U <sub>b</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	34 x 20 x 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>4</sup>
Output current, I <sub>e</sub>	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U <sub>b</sub> / 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 <sup>5</sup>
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 <sup>6</sup> )	10 g
Response time	500 μs	Weight (cable device)	40 g
Control input, IN <sup>3</sup>	+U <sub>b</sub> = teach-in -U <sub>b</sub> = button locked Open = normal operation	Weight (pigtail)	20 g
		Vibration and impact resistance	EN 60947-5-2

<sup>1</sup> Reference material: white, 90 % reflectivity    <sup>2</sup> Max. 10 % ripple, within U<sub>b</sub>, ~ 50 Hz / 100 Hz    <sup>3</sup> Only 4-pin design    <sup>4</sup> With connected IP 67 / IP 69K plug    <sup>5</sup> UL: -20 ... +50 °C

<sup>6</sup> No Ecolab

Scanning distance	Switching output	Type of connection	Part number	Article number
4 ... 120 mm	PNP	Plug, M8x1, 3-pin	FT 25-RLH-PS-M3	609-11011
4 ... 120 mm	PNP	Plug, M8x1, 4-pin	FT 25-RLH-PS-M4	609-11005
4 ... 120 mm	NPN	Plug, M8x1, 4-pin	FT 25-RLH-NS-M4	609-11002
4 ... 120 mm	PNP	Metal plug, M8x1, 3-pin	FT 25-RLH-PS-M3M	609-11007
4 ... 120 mm	NPN	Metal plug, M8x1, 3-pin	FT 25-RLH-NS-M3M	609-11008
4 ... 120 mm	PNP	Metal plug, M8x1, 4-pin	FT 25-RLH-PS-M4M	609-11009
4 ... 120 mm	NPN	Metal plug, M8x1, 4-pin	FT 25-RLH-NS-M4M	609-11010
4 ... 120 mm	PNP	Cable, 2 m, 4-wire	FT 25-RLH-PS-K4	609-11004
4 ... 120 mm	NPN	Cable, 2 m, 4-wire	FT 25-RLH-NS-K4	609-11001
4 ... 120 mm	PNP	Pigtail, 150 mm with plug, M8 4-pin	FT 25-RLH-PS-KM4	609-11012
4 ... 120 mm	NPN	Pigtail, 150 mm with plug, M8, 4-pin	FT 25-RLH-NS-KM4	609-11013

Scanning distance	Switching output	Type of connection	Part number	Article number
4 ... 120 mm	PNP	Pigtail, 150 mm with plug, M12, 4-pin	FT 25-RLH-PS-KL4	609-11006
4 ... 120 mm	NPN	Pigtail, 150 mm with plug, M12, 4-pin	FT 25-RLH-NS-KL4	609-11003



Reference material	Detection range	Accessories
White (90 %)	4 ... 120 mm	Connection cables Brackets
Grey (18 %)	5 ... 110 mm	
Black (6 %)	8 ... 100 mm	
		From Page A-38
		From Page A-4