

# FT 25-R

## Diffuse photoelectric proximity sensor



### PRODUCT HIGHLIGHTS

- Differentiates between even the slightest of grey value differences
- Sensor settings via teach-in and control input
- Simple alignment thanks to easily visible light spot
- Robust glass-fibre-reinforced plastic housings
- Durable laser printing

Optical data		Functions	
Scanning distance	0 ... 800 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Adjustment range	20 ... 800 mm <sup>1</sup>	Indicator LED, yellow	Switching output indicator
Type of light	LED, red, 632 nm	Sensitivity 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
		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 × 20 × 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>3</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>4</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>5</sup> )	10 g
Response time	500 μs	Weight (cable device)	40 g
Control input, IN	+ 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

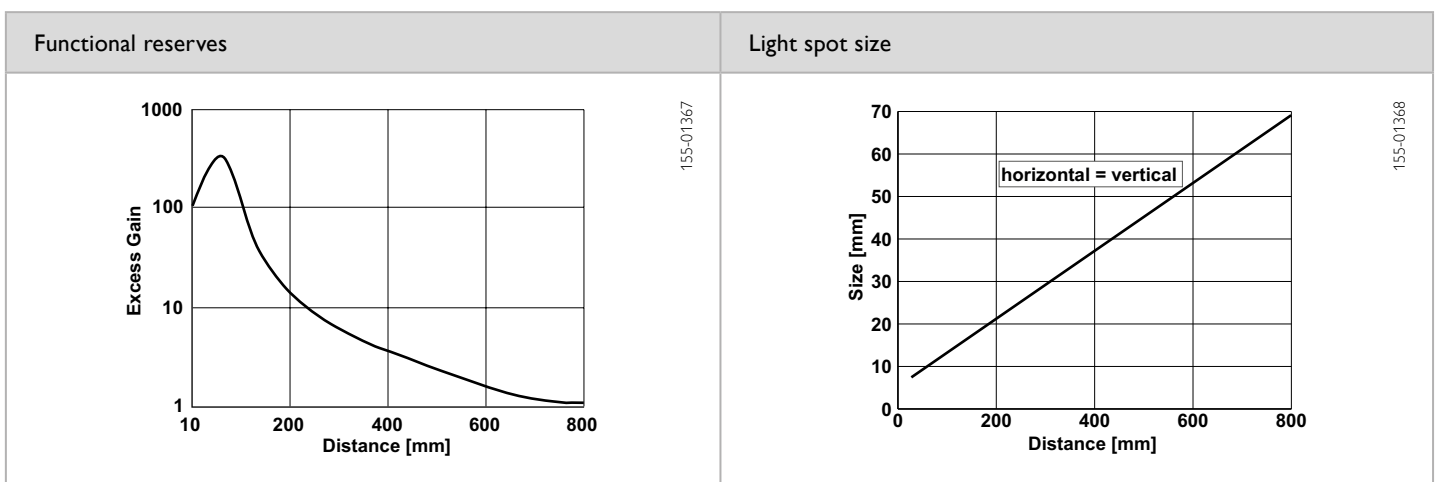
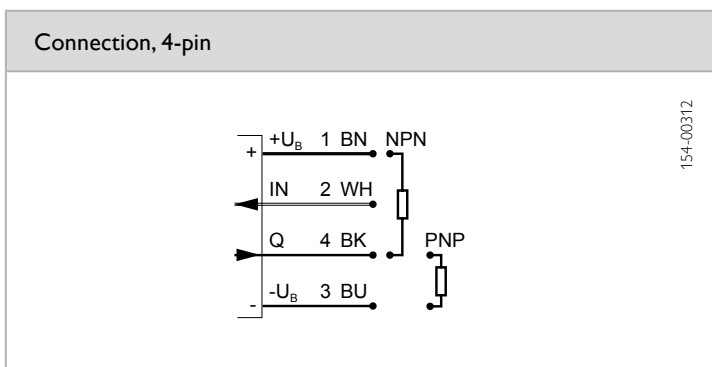
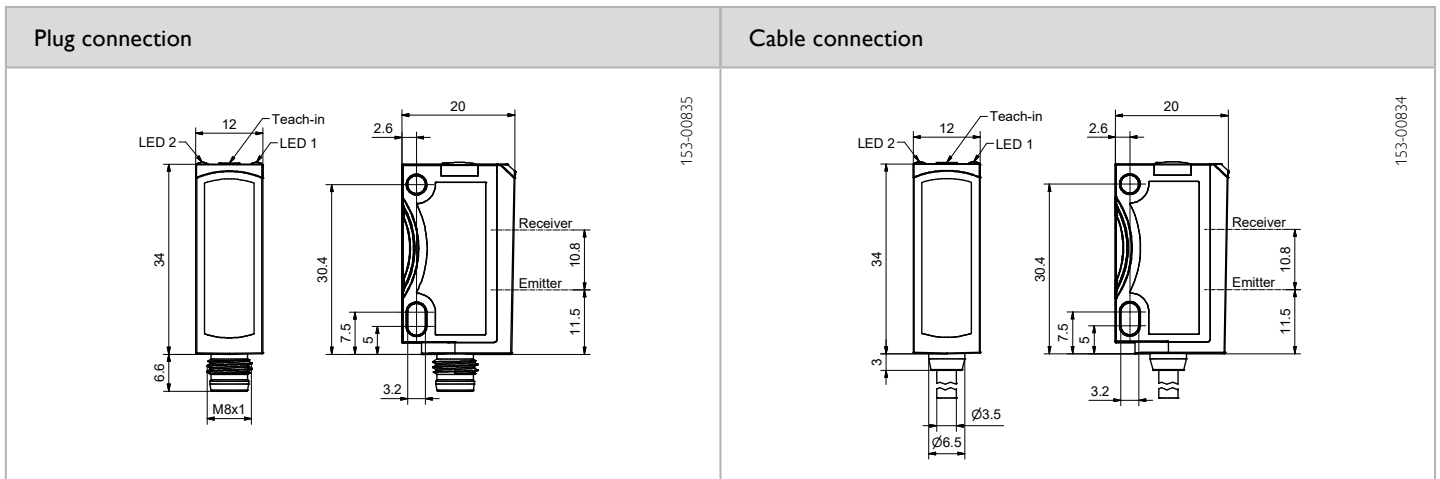
<sup>3</sup> With connected IP 67 / IP 69K plug

<sup>4</sup> UL: -20 ... +50 °C

<sup>5</sup> No Ecolab

Scanning distance	Switching output	Type of connection	Part number	Article number
0 ... 800 mm	PNP	Plug, M8x1, 4-pin	FT 25-R-PS-M4	607-21000
0 ... 800 mm	NPN	Plug, M8x1, 4-pin	FT 25-R-NS-M4	607-21002
0 ... 800 mm	PNP	Metal plug, M8x1, 4-pin	FT 25-R-PS-M4M	607-21006
0 ... 800 mm	NPN	Metal plug, M8x1, 4-pin	FT 25-R-NS-M4M	607-21007
0 ... 800 mm	PNP	Cable, 2 m, 4-wire	FT 25-R-PS-K4	607-21001
0 ... 800 mm	NPN	Cable, 2 m, 4-wire	FT 25-R-NS-K4	607-21003
0 ... 800 mm	PNP	Pigtail, 150 mm with plug, M8, 4-pin	FT 25-R-PS-KM4	607-21022
0 ... 800 mm	NPN	Pigtail, 150 mm with plug, M8, 4-pin	FT 25-R-NS-KM4	607-21023

Scanning distance	Switching output	Type of connection	Part number	Article number
0 ... 800 mm	PNP	Pigtail, 150 mm with plug, M12, 4-pin	FT 25-R-PS-KL4	607-21004
0 ... 800 mm	NPN	Pigtail, 150 mm with plug, M12, 4-pin	FT 25-R-NS-KL4	607-21005



Reference material	Detection range	Accessories
White (90 %)	0 ... 800 mm	Connection cables
Grey (18 %)	1 ... 450 mm	Brackets
Black (6 %)	3 ... 250 mm	
		From Page A-38
		From Page A-4