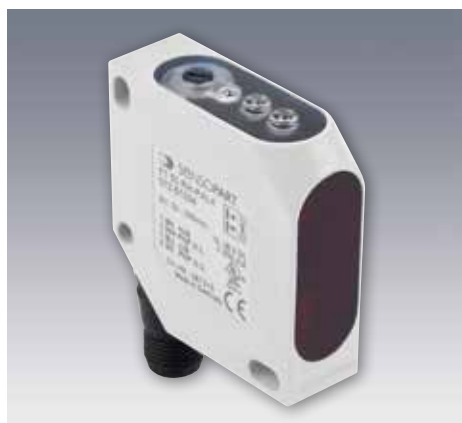


# FT 50 RLH

Diffuse laser sensor with background suppression



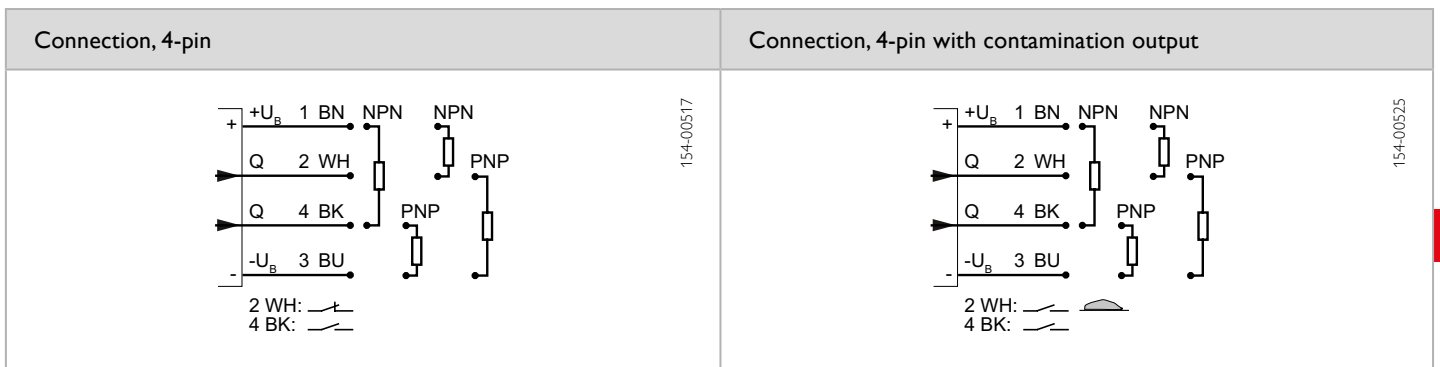
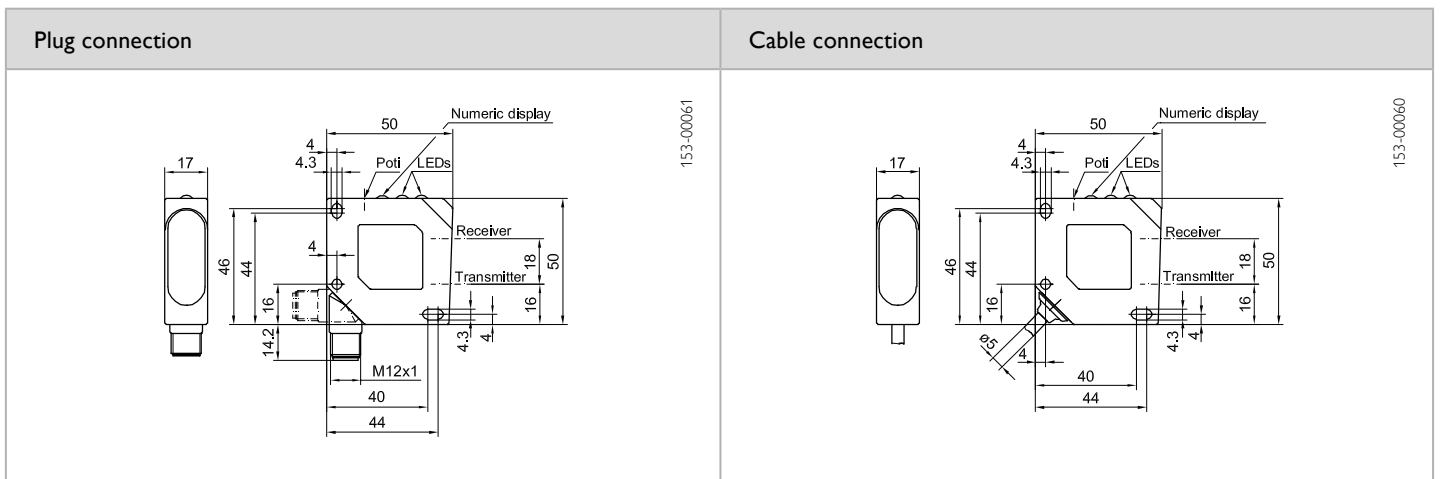
## PRODUCT HIGHLIGHTS

- Particularly suitable for detecting the smallest of objects
- Precisely adjustable background suppression
- Simple scanning distance adjustment thanks to indicator scale
- High switching frequency of 2500 Hz

Optical data		Functions	
Scanning distance	30 ... 150 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Type of light	Laser, red, 650 nm	Indicator LED, yellow	Switching output indicator
Light spot size	See table	Indicator LED, red	Contamination indicator
Laser Class (IEC 60825-1)	1	Scanning distance adjustment	Via potentiometer
Hysteresis <sup>2</sup>	< 5 %		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>3</sup>	Dimensions	50 x 50 x 17 mm
No-load current, I <sub>0</sub>	≤ 50 mA <sup>4</sup>	Enclosure rating	IP 67 <sup>6</sup>
Output current, I <sub>e</sub>	≤ 200 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 ... +45 °C
Switching output, Q	PNP/NPN, antivalent (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C. (see selection table)	Weight (plug device)	40 g
Switching frequency, f (ti/tp 1:1)	≤ 2500 Hz	Weight (cable device)	130 g
Response time	200 μs	Vibration and impact resistance	EN 60947-5-2
Connection, BK	N.O.		
Connection, WH <sup>5</sup>	N.C.		
Contamination output, WH (optional)	N.O. (see selection table)		

<sup>1</sup> Reference material: grey, 18 % reflectivity    <sup>2</sup> 18 % / 18 %    <sup>3</sup> Max. 10 % ripple, within U<sub>B</sub>    <sup>4</sup> At 24V DC    <sup>5</sup> Without contamination output    <sup>6</sup> With connected IP 67 plug

Scanning distance	Switching output	Type of connection	Contamination output	Part number	Article number
30 ... 150 mm	PNP, antivalent	Plug, M12x1, 4-pin	No	FT 50 RLH-PAL4	572-51008
30 ... 150 mm	NPN, antivalent	Plug, M12x1, 4-pin	No	FT 50 RLH-NAL4	572-51011
30 ... 150 mm	PNP (N.O.)	Plug, M12x1, 4-pin	Yes	FT 50 RLH-PSVL4	572-51010
30 ... 150 mm	NPN (N.O.)	Plug, M12x1, 4-pin	Yes	FT 50 RLH-NSVL4	572-51012
30 ... 150 mm	PNP, antivalent	Cable, 3 m, 4-wire	No	FT 50 RLH-PAK4	572-51013
30 ... 150 mm	NPN, antivalent	Cable, 3 m, 4-wire	No	FT 50 RLH-NAK4	572-51015
30 ... 150 mm	PNP (N.O.)	Cable, 3 m, 4-wire	Yes	FT 50 RLH-PSVK4	572-51014
30 ... 150 mm	NPN (N.O.)	Cable, 3 m, 4-wire	Yes	FT 50 RLH-NSVK4	572-51016



Light spot size					
Scanning distance (mm)	30	60	80	100	150
Light spot diameter (mm)	1.8	0.7	0.1	1.1	2.5

Accessories	
Connection cables	From Page A-38
Brackets	From Page A-4

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