

# FS/FE 88-R

Photoelectric through-beam sensor



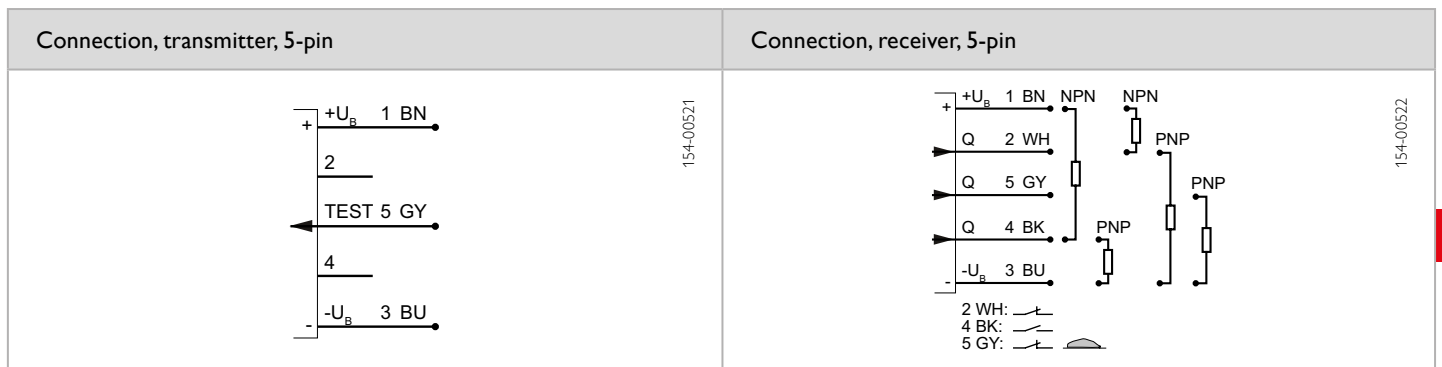
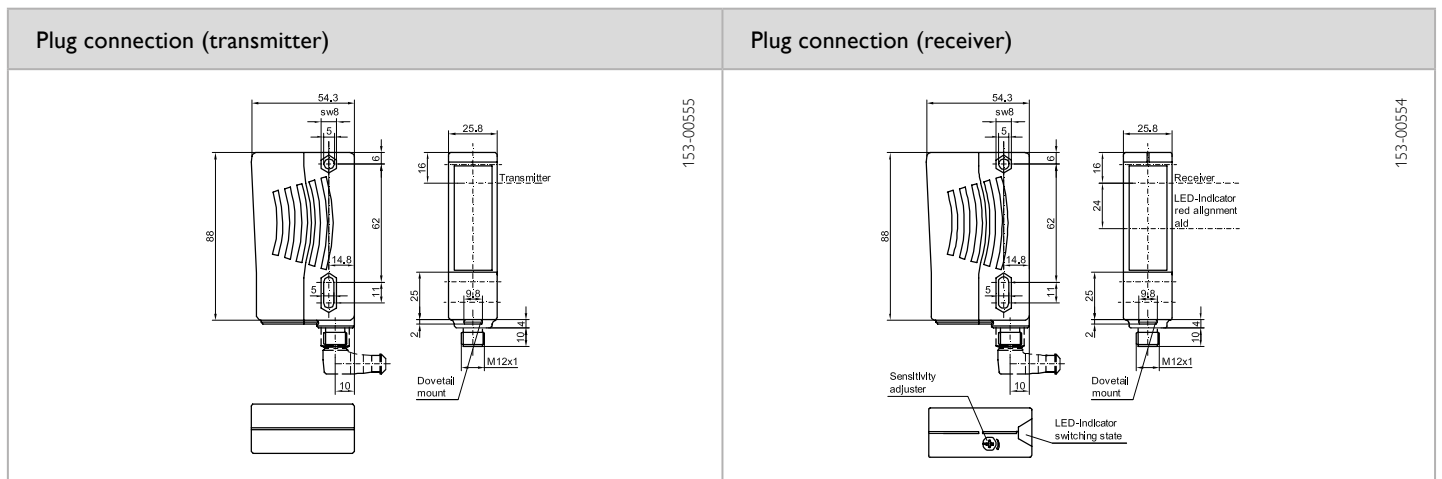
## PRODUCT HIGHLIGHTS

- Antivalent switching output
- Simple alignment thanks to easily visible light spot
- Precise sensitivity adjustment by means of potentiometer
- Contamination output

Optical data		Functions	
Operating range	0 ... 30 m	Indicator LED, yellow	Switching output indicator
Type of light	LED, red, 660 nm	Sensitivity adjustment (receiver)	Via potentiometer
Light spot size <sup>1</sup>	Ø 600 mm	Default setting	Max. range
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	88 x 54.3 x 25.8 mm
No-load current, I <sub>0</sub> (transmitter)	≤ 50 mA	Enclosure rating	IP 67 <sup>4</sup>
No-load current, I <sub>0</sub> (receiver)	≤ 35 mA	Material, housing	ABS
Output current, I <sub>e</sub>	≤ 200 mA	Material, front screen	PMMA
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection (Q)	Type of connection	See selection table
Protection Class	2	Ambient temperature: operation	-40 ... +60 °C
Power On Delay	≤ 300 ms	Ambient temperature: storage	-40 ... +75 °C
Switching output, Q	PNP/NPN antivalent (see selection table)	Weight (plug device) <sup>5</sup>	140 g
Output function	N.O./N.C.	Vibration and impact resistance	EN 60947-5-2
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz		
Response time	500 µs		
Connection, BK	N.O.		
Connection, WH	N.C.		
Contamination output, Gy (receiver / optional)	N.C.		
Control input, Test (transmitter)	+U <sub>B</sub> = Test (transmitter off) <sup>3</sup> -U <sub>B</sub> / Open = normal operation		

<sup>1</sup> At range of 30 m    <sup>2</sup> Max. 10 % ripple, within U<sub>B</sub>    <sup>3</sup> I<sub>max</sub> < 3 mA at 30V DC    <sup>4</sup> With connected IP 67 plug    <sup>5</sup> Sensor pair

Operating range	Switching output	Type of connection	Part number	Article number
0 ... 30 m	PNP	Plug, M12x1, 5-pin	FE 88-R-PAV-L5	822-21010
0 ... 30 m	NPN	Plug, M12x1, 5-pin	FE 88-R-NAV-L5	822-21011
0 ... 30 m	–	Plug, M12x1, 5-pin	FS 88-R-L5	822-11004



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