

# FT 50 RLA 40

Distance sensor



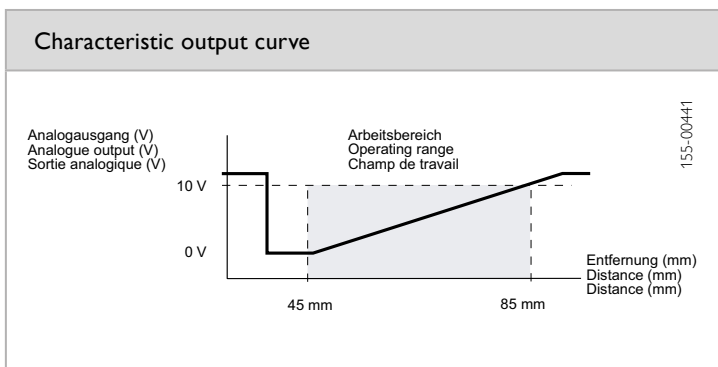
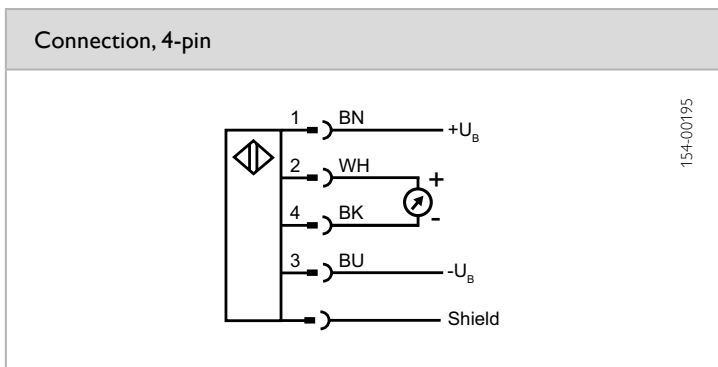
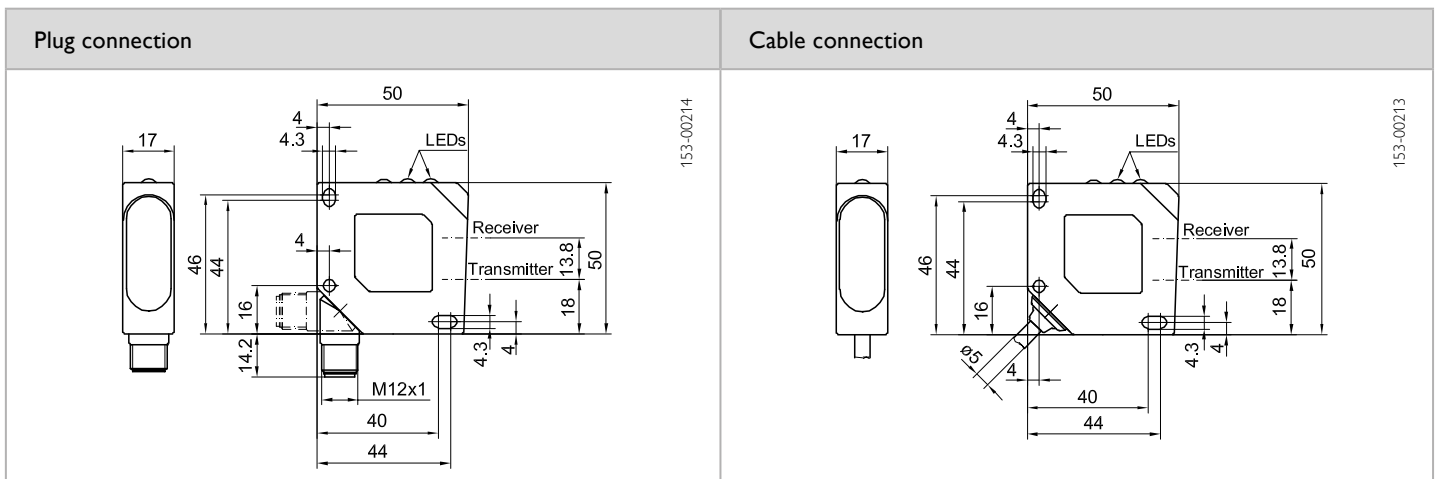
## PRODUCT HIGHLIGHTS

- High resolution and small light spot
- Operating range: 45 ... 85 mm
- Laser red light (670 nm)
- Small, easily visible light spot
- No adjustments necessary
- Resolution: 0.02 mm / 0.08 mm
- Analogue output: 0 ... 10 V
- Device plug rotatable through 270°

Optical data		Functions	
Operating range	45 ... 85 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Measurement range	40 mm	Indicator LED, red	Contamination indicator
Type of light	Laser, red, 670 nm	Scanning distance adjustment	Fixed setting
Laser Class (IEC 60825-1)	1		
Resolution	80 µm / 20 µm (see selection table)		
Linearity	< 1 %		
Light spot size	< 0.8 mm at 65 mm		
Repeatability	< 0.2 mm / 0.1 mm (see selection table)		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	18 ... 28 V DC	Dimensions	50 x 50 x 17 mm
No-load current, I <sub>0</sub>	≤ 35 mA	Enclosure rating	IP 67 <sup>2</sup>
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection, Q	Material, housing	ABS, impact-resistant
Protection Class	2	Material, front screen	PMMA
Analogue output	0 ... 10 V (max. 3 mA)	Type of connection	See selection table
Limit frequency	400 Hz / 40 Hz (see selection table)	Ambient temperature: operation	0 ... +45 °C
Temperature drift	18 µm / K	Ambient temperature: storage	-20 ... +60 °C
Rise time (10 to 90 %)	3 ms / 30 ms (see selection table)	Weight (plug device)	40 g
Fall time (90 to 10 %)	2 ms / 20 ms (see selection table)	Weight (cable device)	260 g
		Vibration and impact resistance	EN 60947-2

<sup>1</sup> Reference material: Kodak grey, 18 %    <sup>2</sup>With connected IP 67 plug

Resolution	Repeatability	Rise time	Fall time	Limit frequency	Type of connection	Part number	Article number
80 µm	< 0.2 mm	3 ms	2 ms	400 Hz	Plug, M12x1, 4-pin	FT 50 RLA-40-F-L4S	574-41001
20 µm	< 0.1 mm	30 ms	20 ms	40 Hz	Plug, M12x1, 4-pin	FT 50 RLA-40-S-L4S	574-41003
80 µm	< 0.2 mm	3 ms	2 ms	400 Hz	Cable, 6 m, 4-wire	FT 50 RLA-40-F-K5	574-41000
20 µm	< 0.1 mm	30 ms	20 ms	40 Hz	Cable, 6 m, 4-wire	FT 50 RLA-40-S-K5	574-41002



### Accessories

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