

# FL 20 R

## Fibre-optic sensor



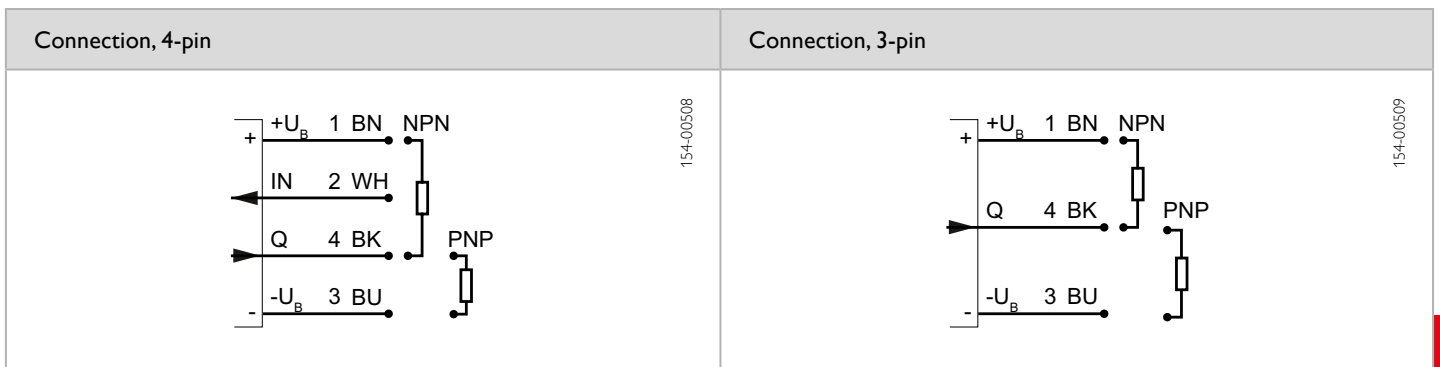
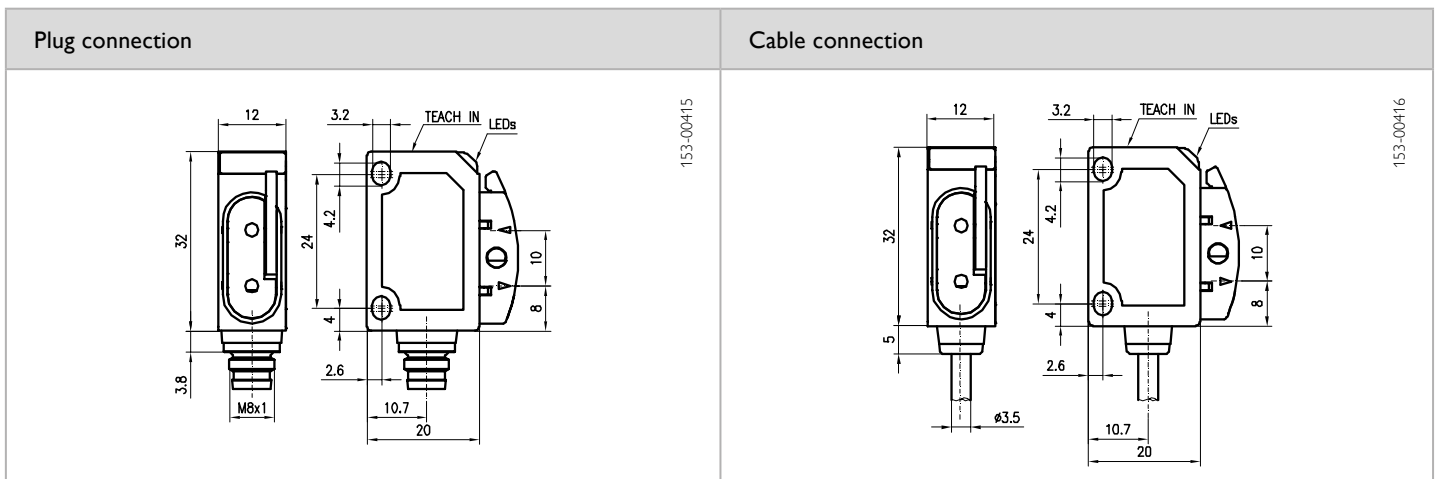
### PRODUCT HIGHLIGHTS

- Simple teach-in via button
- Control line for teach-in and button lock
- Contamination indicator
- N.O./N.C. switchable
- For fibre-optic cables with diameter of 2.2 mm

Optical data		Functions	
Scanning distance	Dependant on fibre-optic cable (scanner) <sup>1</sup>	Indicator LED, green	Stability indicator
Operating range	Dependant on fibre-optic cable (cabinet)	Indicator LED, yellow	Light reception indicator
Type of light	LED, red, 660 nm	Sensor adjustment <sup>2</sup>	Via Teach-in button and control input
Distance hysteresis	< 10 % of set scanning distance	Adjustment possibilities	Button lock via control input
		Default setting	N.O.
Functions		Mechanical data	
Operating voltage, +U <sub>b</sub>	10 ... 30V DC	Dimensions	32 x 20 x 12 mm
Current consumption without load	≤ 25 mA	Enclosure rating	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)	Type of connection	See Selection Table
Protection Class	2	Ambient temperature: operation	-20 ... +60 °C
Switching output, Q	PNP/NPN (see Selection Table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O.	Weight (plug device)	10 g
Switching frequency, f (ti/tp 1:1)	1000 Hz	Weight (cable device)	40 g
Control input, I <sub>N</sub> : (only 4-pin version)	+U <sub>b</sub> = teach-in -U <sub>b</sub> = button locked Open = normal operation		

<sup>1</sup> Reference material: white, 90 % reflectivity    <sup>2</sup> Only 4-pin version    <sup>3</sup> With suitable fibre-optic cable

Switching output	Type of connection	Part number	Article number
PNP	Plug, M8x1, 4-pin	FL 20 R-PSM4	551-71000
PNP	Cable, 2 m, 4-wire	FL 20 R-PSK4	551-71001
NPN	Plug, M8x1, 4-pin	FL 20 R-NSM4	551-71002
NPN	Cable, 2 m, 4-wire	FL 20 R-NSK4	551-71003
PNP	Plug, M8x1, 3-pin	FL 20 R-PSM3	551-71004



Accessories	
Connection cables	From Page A-38
Brackets	From Page A-4
Fibre-optic cables	From Page 514