

# FS/FE 25-R

Photoelectric through-beam sensor



## PRODUCT HIGHLIGHTS

- Test input for checking sensor pair function
- 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
- Setting of smart functions via IO-Link

Optical data		Functions	
Limit range	0 ... 15 m	Indicator LED, green	Operating voltage indicator
Operating range	0 ... 13 m	Indicator LED, yellow	Switching output indicator
Type of light	LED, red, 632 nm	Sensitivity adjustment (receiver)	Via Teach-in button, control input and IO-Link
Light spot size	See diagram	Teach-in modes	Mode 1: during running process Mode 2: during standing process
		Adjustment possibilities (receiver)	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input and IO-Link; Button lock via control input and IO-Link; Wide variety of adjustment possibilities via IO-Link
		Default settings	Max. range and N.O.
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>1</sup>	Dimensions	34 × 20 × 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69 & 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	1x Auto-Detect (PNP/NPN) <sup>2</sup>	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (metal plug device <sup>5</sup> )	10 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (cable device)	40 g
Response time	500 μs	Vibration and impact resistance	EN IEC 60947-5-2
Control input, IN (receiver)	+U <sub>B</sub> = teach-in -U <sub>B</sub> = button locked Open = normal operation	IO-Link	
Control input, Test (transmitter)	+U <sub>B</sub> = Test (transmitter off) -U <sub>B</sub> / Open = normal operation	Communication mode	COM 2
		Min. cycle time	2.3 ms
		SIO mode	compatible
		Process bit length	16 Bit
		Specification	1.1

<sup>1</sup> Max 10 % ripple, within U<sub>B</sub>, ~ 50 Hz / 100 Hz    <sup>2</sup> Auto-Detect, automatic PNP/NPN selection by the sensor; PNP or NPN fixed    <sup>3</sup> With connected IP 67/IP 69 plug

<sup>4</sup> UL: -20 ... +50 °C    <sup>5</sup> No Ecolab

Operating range	Switching output	Type of connection	Part number	Article number
0 ... 13 m	Auto-Detect	Metal plug, M8x1, 4-pin, IO-Link	FE 25-R-PNSL-M4M	605-21019
0 ... 13 m	–	Metal plug, M8x1, 4-pin, IO-Link	FS 25-R-L-M4M	605-11010
0 ... 13 m	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FE 25-R-PNSL-K4	605-21018
0 ... 13 m	–	Cable, 2 m, 4-wire, IO-Link	FS 25-R-L-K4	605-11009

<p>Plug connection (transmitter)</p>	<p>Cable connection (transmitter)</p>
<p>Plug connection (receiver)</p>	<p>Cable connection (receiver)</p>

<p>Connection, transmitter, 4-pin, IO-Link</p>	<p>Connection, receiver, 4-pin, IO-Link</p>

<p>Functional reserves</p>	<p>Light spot size</p>

<p>Accessories</p>	
<p>Connection cables</p>	<p><a href="http://www.sensopart.com/en/accessories">www.sensopart.com/en/accessories</a></p>
<p>Brackets</p>	
<p>SensolO (901-01001)</p>	