

# FLS 18W / FLE 18W

Through-beam laser sensor



## PRODUCT HIGHLIGHTS

- Operating range: 50 m
- Red light laser, 650 nm
- Transmitter beam can be focused according to application
- Accuracy adjustable via beam spot size
- Smallest detectable part: 0.03 mm
- Switching frequency, 6000 Hz
- Metal M18 threaded sleeve

Optical data		Functions	
Operating range	0 ... 50 m	Indicator LED, green	Operating voltage indicator
Type of light	Laser, red, 650 nm	Indicator LED, yellow	Switching output indicator
Laser Class (IEC 60825-1)	1	Indicator LED, red	Contamination indicator
		Sensitivity adjustment	Via 18-step potentiometer
		Default settings	Max. operating range
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>1</sup>	Dimensions	See dimensional drawings
No-load current, I <sub>0</sub>	≤ 25 mA	Enclosure rating	IP 65 <sup>2</sup>
Output current, I <sub>e</sub>	≤ 200 mA	Material, housing	Brass, nickel-plated
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	-10 ... +50 °C
Power On Delay	≤ 300 ms	Ambient temperature: storage	-20 ... +80 °C
Switching output, Q	PNP	Weight (plug device)	85 g
Output function	N.O./N.C. (see selection table)	Weight (cable device)	190 g
Switching frequency, f (ti/tp 1:1)	≤ 6000 Hz		
Response time	83 μs		
Control input, Test	< 2V: transmitter off > 10V or Open: transmitter on		

<sup>1</sup> 10 % ripple, within U<sub>B</sub>    <sup>2</sup>With connected IP 65 plug

Transmitter / receiver	Switching output	Type of connection	Part number	Article number
Transmitter	–	Plug, M12x1, 4-pin	FLS 18W-L4	580-51408
Receiver	PNP (N.O./N.C.)	Plug, M12x1, 4-pin	FLE 18W-L4	580-51414
Receiver	PNP (N.C.)	Plug, M12x1, 4-pin	FLE 18W-L4-15	580-51415
Transmitter	–	Cable, 3 m, 4-wire	FLS 18W	580-51409
Receiver	PNP (N.O./N.C.)	Cable, 3 m, 4-wire	FLE 18W	580-51416
Receiver	PNP (N.C.)	Cable, 3 m, 4-wire	FLE 18W-15	580-51417

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

<p>Plug connection (transmitter): FLS 18W-L4</p>	<p>Cable connection, (transmitter): FLS 18W</p>
<p>153-00052</p>	<p>153-00050</p>

<p>Plug connection (receiver): FLE 18W-L4 / FLE 18W-L4-15</p>	<p>Cable connection, (receiver): FLE 18W / FLE 18W-15</p>
<p>153-00053</p>	<p>153-00051</p>

<p>Connection, 4-pin (transmitter)</p>	<p>Connection, 4-wire (transmitter)</p>
<p>154-00231</p>	<p>154-00231</p>

<p>Connection, 4-pin (receiver): FLE 18W</p>	<p>Connection, 4-wire (receiver): FLE 18W</p>
<p>154-00230</p>	<p>154-00230</p>

<p>Connection, 4-pin (receiver): FLE 18W-L4-15</p>	<p>Connection, 4-wire (receiver): FLE 18W-15</p>
<p>154-00464</p>	<p>154-00464</p>