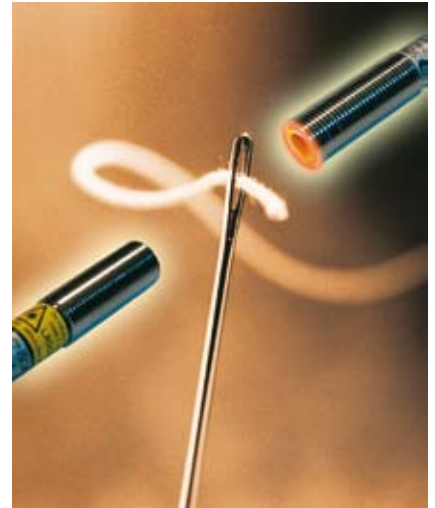


# HIGH-PRECISION

## FS/FE 12 RL FS/FE 18 RL Laser through-beam sensors



### For the needle in the haystack

We have two very compact solutions for the detection of small objects at large distances: Thanks to their small light spot, the **FS/FE 12 RL** and **FS/FE 18 RL** laser through-beam sensors are perfect for the detection of even very small parts with a size from only 0.2 mm!

The adjustment of the systems proves to be very simple: Together with the visible red light, the large output signal indicator LED behind the receiver lens facilitates the precise alignment of transmitter and receiver.

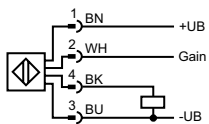
The sensitivity of the output may be adjusted in three degrees by means of a control input. With a maximum switching frequency of 10 kHz these sensors are particularly suitable for the detection of very fast processes.

#### Features

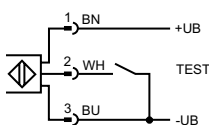
- *Detection of very small parts from 0.2 mm*
- *Scanning range 5 m (FS/FE 12 RL) or 50 m (FS/FE 18 RL)*
- *Switching frequency 10 kHz*
- *Output PNP N.O.*
- *Small size*
- *Red light 650 nm*  *Laser class 2*
- *Control line for the setting of three sensitivity degrees*
- *Test input*

Technical data	FS/FE 12 RL	FS/FE 18 RL
<b>Optical data</b>		
Scanning range	5 m	50 m
Used light	laser red 650 nm, pulsed	laser red 650 nm, pulsed
Laser protection class	2	2
<b>Electrical data</b>		
Operating voltage	10 ... 30VDC integrated polarity reversal protection	10 ... 30VDC integrated polarity reversal protection
Switching frequency	10 kHz	10 kHz
Connection	plug M12 4-pin	plug M12 4-pin
Current consumption (no load)	≤ 30 mA	≤ 30 mA
Signal output	PNP N.O.	PNP N.O.
Max. output current	100 mA with short-circuit protection	100 mA with short-circuit protection
Test input transmitter	yes	yes
Function indicator	LED yellow - unbroken light beam (receiver)	LED yellow - unbroken light beam (receiver)
Power-on delay	≤ 300 ms	≤ 300 ms
Protection class	□	□
<b>Mechanical data</b>		
Casing material	brass, nickelized	brass, nickelized
Protection standard	IP67	IP67
Ambient temperature range	-20 ... +65 °C	-20 ... +65 °C
Plug connection	M12 x 1	M12 x 1
<b>Accessory</b>		
Cable	L4-2m-G-PUR (Art. n° 902-50805)	L4-2m-G-PUR (Art. n° 902-50805)

#### Wiring diagram receiver

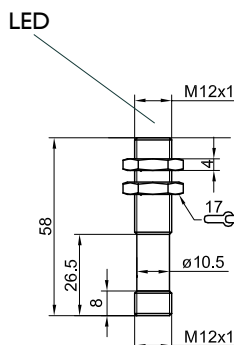


#### Wiring diagram transmitter



#### Dimensional drawings

153-00345 - FE 12 RL



153-00351 - FE 18 RL

