

FR 92 ILA

Reflector distance sensor



PRODUCT HIGHLIGHTS

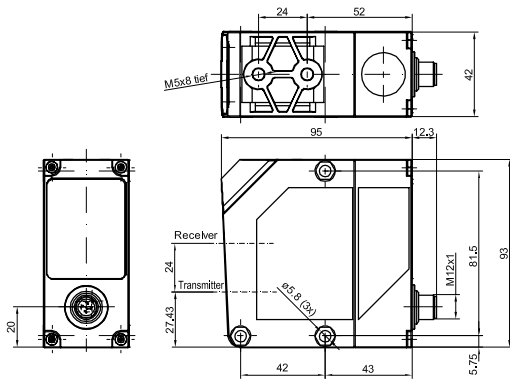
- Long scanning distance and range (scanning up to 6 m on white objects, with reflector up to 30 m)
- High repeatability
- High measurement rates
- Switchable red-light pilot laser
- Simple teach-in

Optical data		Functions	
Scanning distance	0.2 ... 30 m ¹	Indicator LED, green	Operating voltage indicator
Type of light	Infrared, 905 nm (measurement laser) Laser; red, 650 nm (pilot laser)	Indicator LED, yellow	Switching output indicator
Laser Class (IEC 60825-1)	1 (measurement laser) 1 (pilot laser)	Indicator LED, orange	Operating mode
Repeatability Fast/Slow	≤ ± 10 / 5 mm ²	Indicator LED, red	Menu Indicator
Linearity	≤ ± 60 mm ²	Scanning distance adjustment	Via Teach-in button
		Default settings	Max. scanning distance and N.O.
Electrical data		Mechanical data	
Operating voltage, +U _B	18 ... 30V DC ³	Dimensions	95 × 93 × 42 mm
No-load current, I ₀	≤ 125 mA	Enclosure rating	IP 67 ⁴
Output current, I _e	100 mA	Material, housing	ABS
Max. voltage drop at switching output	≤ 2.4V	Material, front screen	PMMA
Protective circuits	Reverse-polarity protection, U _B / short-circuit protection (Q)	Type of connection	See selection table
Protection Class	2	Ambient temperature: operation	-20 ... +50 °C
Power On Delay	< 300 ms	Ambient temperature: storage	-40 ... +80 °C
Switching frequency f (ti/tp 1:1) Q	≤ 300 Hz	Weight	200 g
Response time fast / slow	30 ms / 65 ms	Vibration and impact resistance	EN 60947-5-2
Switching output, Q ₁ / Q ₂	PNP		
Output function	N.O.		
Analogue output	4 ... 20 mA		
Temperature drift analogue	3 mm / K		
Temperature drift switching output	1.5 mm / K		

¹ With RL250 reflector ² Data apply after a minimum switch-on time of 30 min ³ 10 % ripple, within U_B ⁴ With connected IP 67 plug

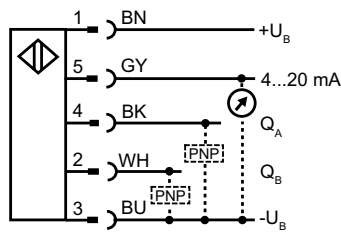
Type of connection	Part number	Article number
Plug, M12, 5-pin	FR 92 ILA-PSL5	591-91006

Plug connection



153-00346

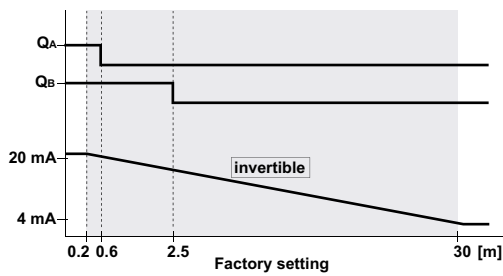
Connection, 5-pin



154-00125

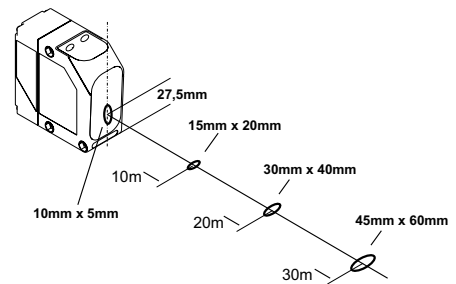
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Characteristic output and analogue curves



155-01359

Light spot geometry



155-00210

Accessories

Reflectors	From Page A-18
Connection cables	From Page A-38
Brackets	From Page A-4
AS F 90 Aligning aid	From Page A-4
MSP F 90 A Fine adjustment	From Page A-4
Converters and adapter cables	From Page A-38