

FT 92 ILA / IRLA

Distance sensor



PRODUCT HIGHLIGHTS

- Long scanning distance and range
- High repeatability
- High measurement rates
- Very good price/performance ratio
- Switchable red-light pilot laser
- 2 PNP switching outputs
- 1 analogue output: 4 ... 20 mA
- All outputs in measurement range freely adjustable
- Standard M12 plug

Optical data		Functions	
Scanning distance	0.2 ... 6 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	2 x switching output indicator
Laser Class (IEC 60825-1)	1 (measurement laser) 1 (pilot laser)	Indicator LED, orange	Operating mode
Repeatability Fast/Slow	< ± 15 / 10 mm ²	Indicator LED, red	Menu Indicator
Linearity	≤ ± 40 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, impact-resistant
Protective circuits	Reverse-polarity protection, U _B / 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 ... +50 °C
Switching frequency f (ti/tp 1:1) Q	≤ 300 Hz	Ambient temperature: storage	-40 ... +80 °C
Switching output, Q ₁ / Q ₂	PNP/NPN 100 mA (see selection table)	Weight	200 g
Analogue output	4 ... 20 mA	Vibration and impact resistance	EN 60947-5-2
Response time Q _A	10 ms		
Temperature drift	≤ 1.2 mm / K		
Load	≤ 500 Ω		

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

Switching output	Type of connection	Part number	Article number
PNP	Plug, M12, 5-pin	FT 92 ILA-PSL5	591-91005
NPN	Plug, M12, 5-pin	FT 92 ILA-NSL5	591-91008
PNP	Plug, M12, 5-pin	FT 92 IRLA-PSL5 ⁵	591-91013

⁵ Pilot laser (red) on permanently

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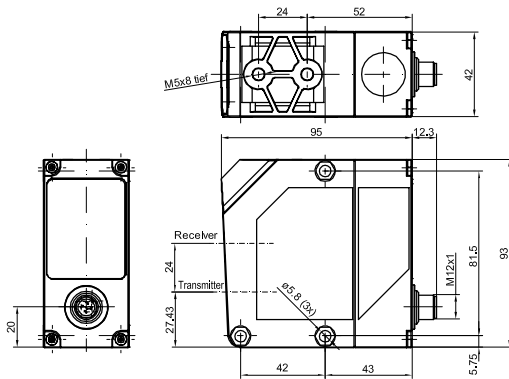


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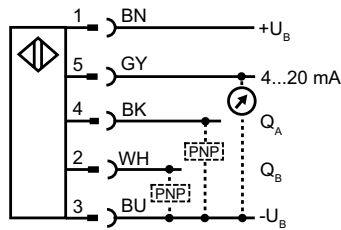
sales@electromate.com

Plug connection



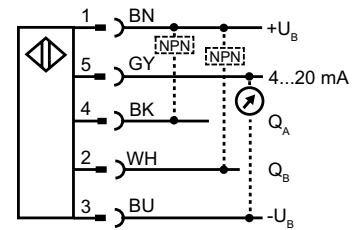
153-00346

Connection, 5-pin (PNP)



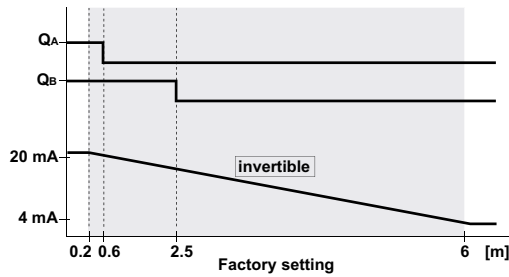
154-00125

Connection, 5-pin (NPN)



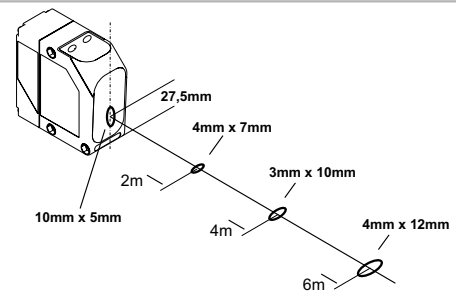
154-00472

Characteristic analogue curve



155-01373

Light spot geometry



155-00141

Scanning distance

White 90 %	0.2 ... 6 m
Grey 18 %	0.2 ... 6 m
Black 6 %	0.2 ... 2.5 m

Accessories

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

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