

# FT 25-RGB

Multi-color contrast sensor

Sold & Serviced By:



Toll Free Phone (877) SERV098

[www.electromate.com](http://www.electromate.com)

[sales@electromate.com](mailto:sales@electromate.com)



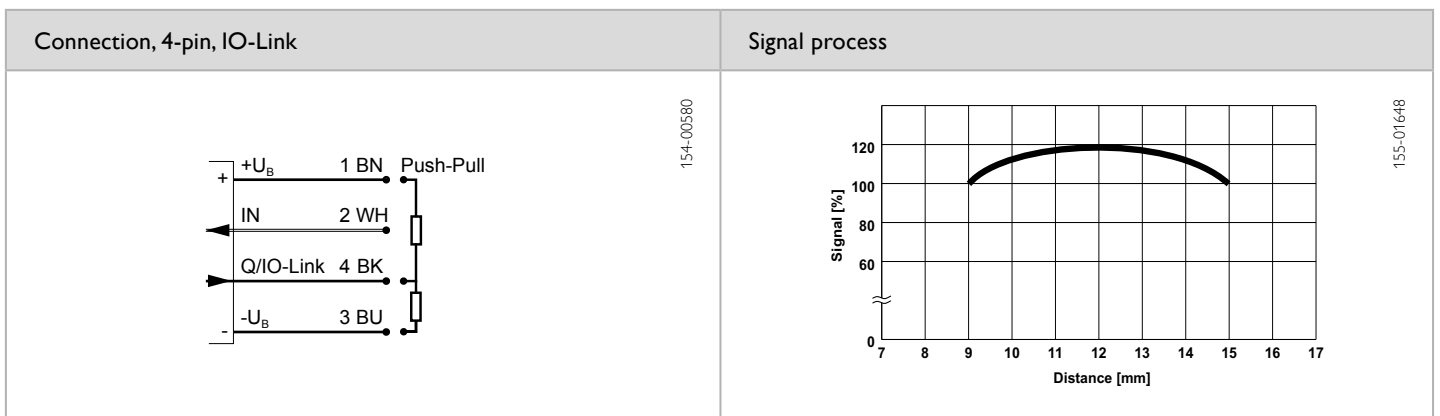
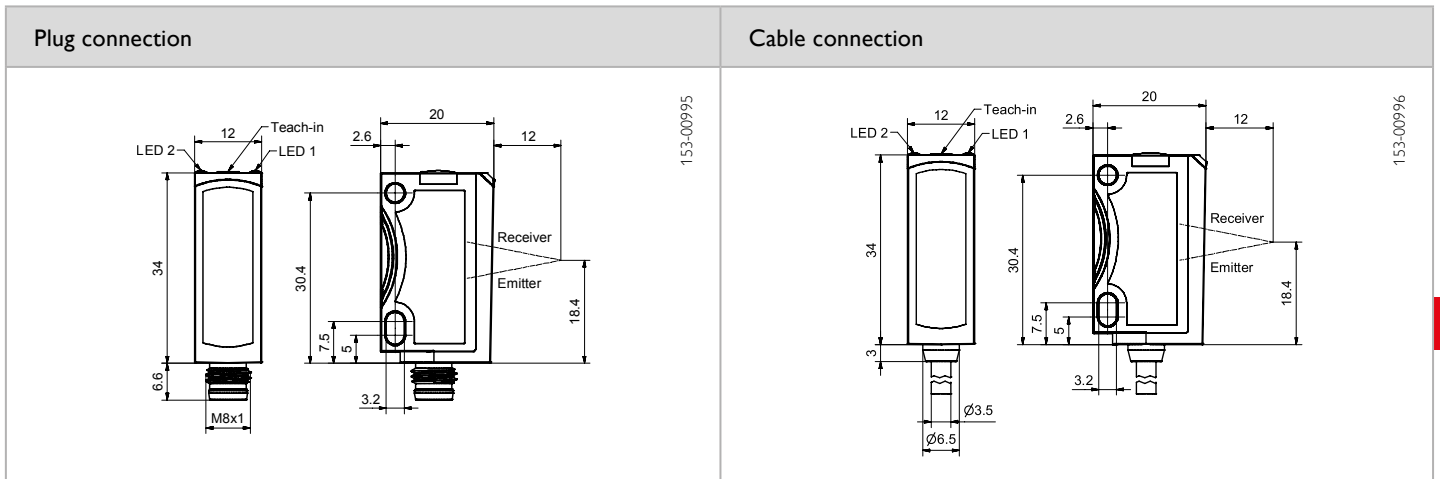
## PRODUCT HIGHLIGHTS

- Precise detection of the slightest of contrast differences through multi-color RGB evaluation
- Very robust operation despite fluttering and glossy objects
- Simple alignment thanks to very precise and easily visible light spot
- Communication via 3-color light spot (simple, comprehensible, clearly defined)
- Very accurate positioning due to rapid scanning rate of 10  $\mu$ s

Optical data		Functions	
Scanning distance	12 mm	Indicator LED, green	Operating voltage indicator
Depth of field	$\pm$ 3 mm	Indicator LED, yellow	Switching output indicator
Type of light	Red LED, 633 nm Green LED, 525 nm Blue LED, 460 nm	Sensitivity adjustment	Via Teach-in button, control input and IO-Link
Light spot size	1 x 4 mm	Teach-in modes	Mode 1: with running process Mode 2: with standing process
		Adjustment possibilities	LO / DO via Teach-in button and control line Button lock via control input Wide variety of adjustment possibilities via IO-Link
Electrical data		Mechanical data	
Operating voltage, +U <sub>b</sub>	10 ... 30V DC <sup>1</sup>	Dimensions	34 x 20 x 12 mm
No-load current, I <sub>0</sub>	$\leq$ 30 mA	Enclosure rating	IP 69 & IP 67 <sup>3</sup>
Output current, I <sub>e</sub>	$\leq$ 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 ... +55 °C <sup>4</sup>
Switching output, Q	Push-Pull	Ambient temperature: storage	-20 ... +80 °C
Output function	LO/DO	Weight (plug device)	10 g
Switching frequency, f (ti/tp 1:1) <sup>2</sup>	See selection table	Weight (metal plug device <sup>5</sup> )	10 g
Response time	See selection table	Weight (integrated cable)	20 g
Jitter (electrical)	See selection table	Vibration and impact resistance	EN 60947-5-2
Control input, IN	+U <sub>b</sub> = teach-in -U <sub>b</sub> = button locked open = normal operation		
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Length process data	16 Bit		
Specification	1.1		

<sup>1</sup> Max. 10 % ripple, within U<sub>b</sub>, ~ 50 Hz / 100 Hz    <sup>2</sup> f = 1 / (T x Nyq x 2)    <sup>3</sup> With connected IP 67 / IP 69 plug    <sup>4</sup> UL: -20 ... +50 °C    <sup>5</sup> no Ecolab

Switching frequency, f (ti/tp 1:1) <sup>2</sup>	Response time	Jitter (electrical)	Type of connection	Part number	Article number
≤ 25000 Hz	≤ 20 μs	< 10 μs	Metal plug, M8x1, 4-pin, IO-Link	FT 25-RGB1-GSL-M4M	607-21037
≤ 25000 Hz	≤ 20 μs	< 10 μs	Pigtail, 150 mm with plug M12x1, 4-pin, IO-Link	FT 25-RGB1-GSL-KL4	607-21036
≤ 10000 Hz	≤ 50 μs	< 25 μs	Plug, M8x1, 4-pin, IO-Link	FT 25-RGB2-GSL-M4	607-21038
≤ 10000 Hz	≤ 50 μs	< 25 μs	Pigtail, 150 mm with plug M12x1, 4-pin, IO-Link	FT 25-RGB2-GSL-KL4	607-21039



Accessories	
Connection cables	From Page A-38
Brackets	From Page A-4
SensolO (901-01000)	From Page A-4

Sold & Serviced By:



Toll Free Phone (877) SERV098  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)