

# FT 25-C

RGB color sensor



## PRODUCT HIGHLIGHTS

- Smallest RGB color sensor with high switching frequency  $\leq 10$  kHz
- Precise detection of the slightest of contrast differences
- Very robust operation despite fluttering and glossy objects
- Feedback via „responding light spot“ about quality of taught-in color value

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 5 mm	Adjustment possibilities	N.O./N.C. via Teach-in button and control input Button lock via control input Wide variety of adjustment possibilities via IO-Link
		Default settings	N.O.
Electrical data		Mechanical data	
Operating voltage, $+U_B$	10 ... 30V DC <sup>1</sup>	Dimensions	34 x 20 x 12 mm
No-load current, $I_0$	$\leq 30$ mA	Enclosure rating	IP 67 & IP 69 <sup>3</sup>
Output current, $I_e$	$\leq 100$ mA	Material, housing	ABS
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 ... +55 °C <sup>4</sup>
Switching output, Q	Push-Pull	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (metal plug device)	10 g
Switching frequency, $f$ (ti/tp 1:1) <sup>2</sup>	See selection table	Vibration and impact resistance	EN 60947-5-2
Response time	See selection table		
Control input, IN	$+U_B$ = teach-in $-U_B$ = button locked open = normal operation		
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Length process data	32 Bit		
Specification	1.1		

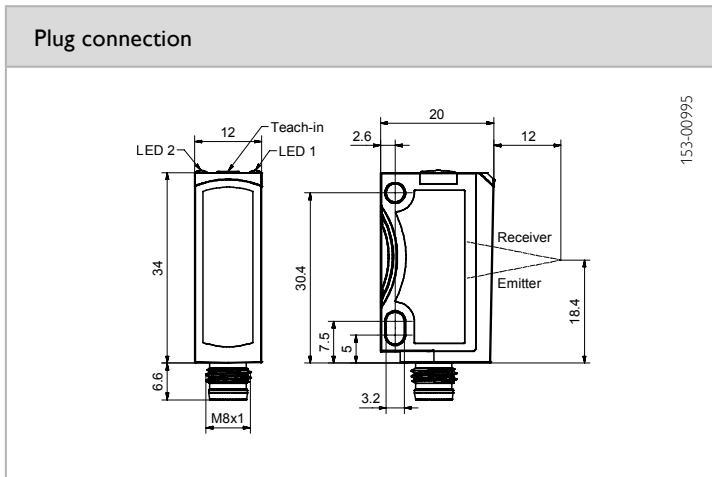
<sup>1</sup> Max. 10 % ripple, within  $U_B$ , ~ 50 Hz / 100 Hz

<sup>2</sup>  $f = 1 / (T \times Nyq \times 2)$

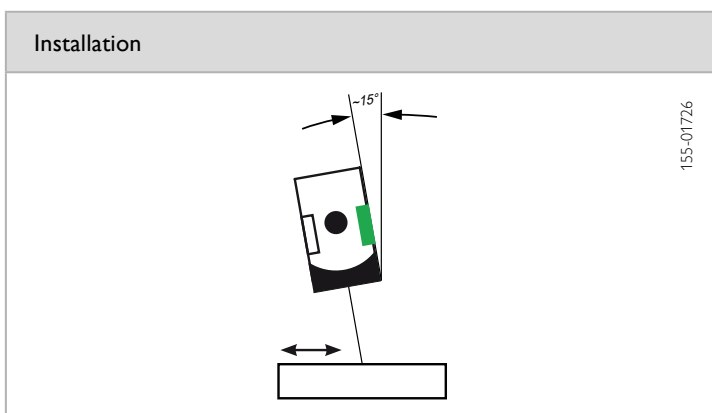
<sup>3</sup> With connected IP 67 / IP 69 plug

<sup>4</sup> UL: -20 ... +50 °C

Switching frequency, f (ti/tp 1:1) <sup>2</sup>	Response time	Scanning distance	Type of connection	Part number	Article number
≤ 10000 Hz	≤ 50 μs	12 ± 3 mm	Metal plug, M8x1, 4-pin, IO-Link	FT 25-C1-GSL-M4M	607-21040
≤ 2500 Hz	≤ 200 μs	12 ± 3 mm	Metal plug, M8x1, 4-pin, IO-Link	FT 25-C2-GSL-M4M	607-21041



Connection, 4-pin, IO-Link	Signal process
<p style="text-align: right;">154-00580</p>	<p style="text-align: right;">155-01648</p>



### Accessories

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