

FT 50 C

Colour sensor with serial switching interface



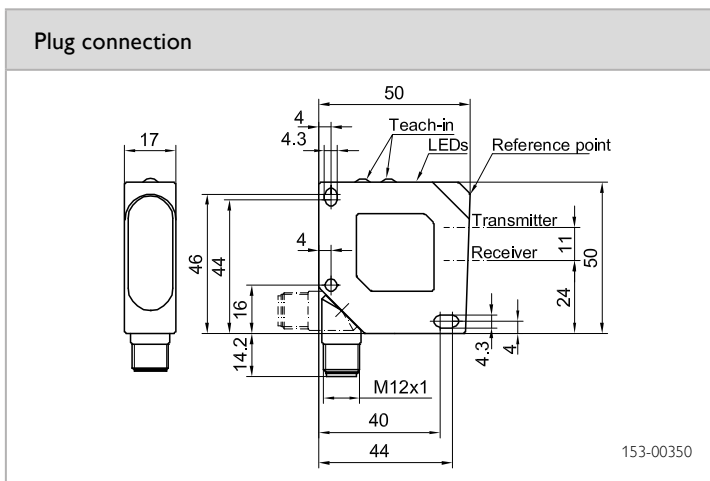
PRODUCT HIGHLIGHTS

- Colours are reliably detected despite fluctuating scanning distances thanks to patented optical technology
- Transfer of colour channel or colour value, as well as reading, modification and storage of sensor parameters, via RS485 interface
- Even the smallest of colour differences are reliably detected
- ColourScan function for detection of colour ranges
- Reliable detection of even the smallest of coloured objects

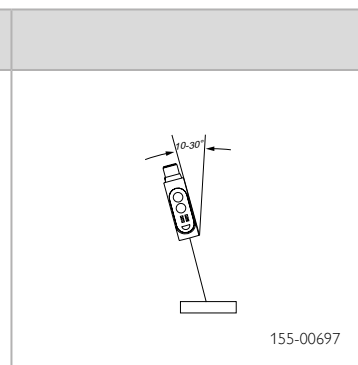
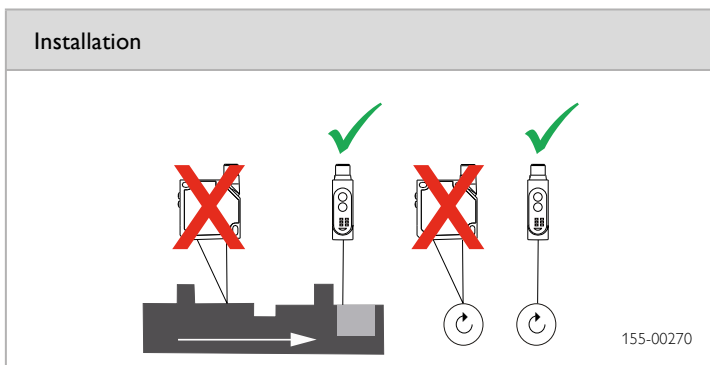
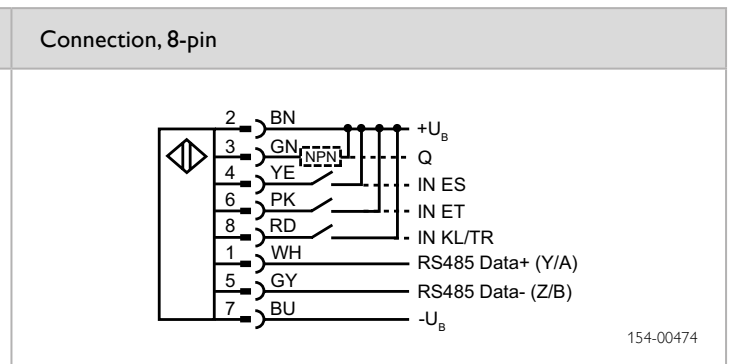
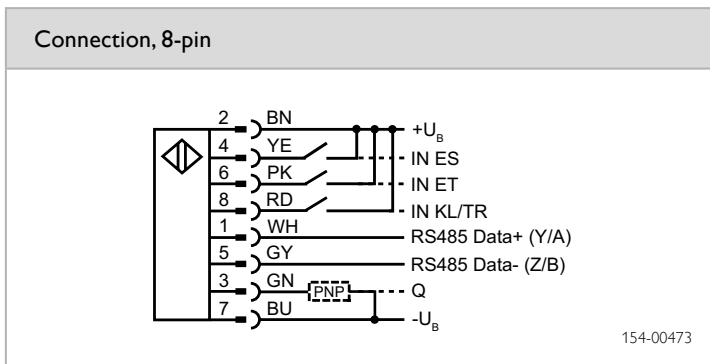
Optical data		Functions	
Scanning distance	See Selection Table	Indicator LED, green	Operating voltage indicator
Scanning distance tolerance	See Selection Table	3 x indicator LEDs, yellow	Switching output indicators
Type of light	LED, white	3 x indicator LEDs, red	Tolerance level indicators
Light spot size	See Selection Table	Colour & tolerance setting	Via teach-in button and control line
		Default setting	White, 90 %, taught-in, sensor address = 1 (RS485)
		Supplementary functions	ColourScan, triggering, teach-in, button lock
Electrical data		Mechanical data	
Operating voltage, +U _b	12 ... 28 V DC ¹	Dimensions	50 x 50 x 17 mm ³
No-load current, I ₀	≤ 40 mA	Enclosure rating	IP 67 ³
Output current, I _e	≤ 100 mA	Material, housing	ABS, impact-resistant
Voltage drop, U _D	≤ 2.4 V	Material, front screen	PMMA
Max. capacitive load	< 100 nF	Type of connection	Plug, M12x1, 8-pin, rotatable
Protective circuits	Reverse-polarity protection, U _b / short-circuit protection (Q) (not RS485)	Ambient temperature: operation	-10 ... +55 °C
Protection Class	2	Ambient temperature: storage	-20 ... +80 °C
Power On Delay	< 300 ms	Weight (plug device)	40 g
Switching output, Q	See Selection Table	Vibration and impact resistance	EN 60947-5-2
Output function	N.O. / N.C.		
Switching frequency, f (ti/tp 1:1)	Max. 500 Hz		
Time stage for Q	50 ms release delay, adjustable		
Control input, KL / TR	Button lock input (KL) or triggering (TR), adjustable		
Control input, IN ET	PNP / NPN, input for external teach-in		
Min. response time	2 ms		
Control input, IN ES	PNP / NPN, input for external scanning		
Serial interface	RS485 (half-duplex)		

¹ At scanning distance of 22 mm ² Max. 10 % ripple, within U_b ³ With connected IP 67 plug

Scanning distance/Scanning distance tolerance/Light spot size	Switching output	Type of connection	Part number	Article number
12 ... 32 mm / ± 6 mm / Ø 4 mm ¹	PNP	Plug, M12, 8-pin	FT 50 C-1-PS1-L8	575-11007
12 ... 32 mm / ± 6 mm / Ø 4 mm ¹	NPN	Plug, M12, 8-pin	FT 50 C-1-NS1-L8	575-11010
15 ... 30 mm / ± 5 mm / 2 x 2 mm ¹	PNP	Plug, M12, 8-pin	FT 50 C-2-PS1-L8	575-11008
15 ... 30 mm / ± 5 mm / 2 x 2 mm ¹	NPN	Plug, M12, 8-pin	FT 50 C-2-NS1-L8	575-11011
18 ... 22 mm / ± 2 mm / 5 x 1 mm ¹	PNP	Plug, M12, 8-pin	FT 50 C-3-PS1-L8	575-11009
18 ... 22 mm / ± 2 mm / 5 x 1 mm ¹	NPN	Plug, M12, 8-pin	FT 50 C-3-NS1-L8	575-11012



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Accessories

Connection cables	From Page A-32
Brackets	From Page A-4
Progsensor software	www.sensopart.com