FT 50 C

Color sensor with a switching output

CE

IP 67

c UL us
LISTED

PRODUCT HIGHLIGHTS

- Colors are reliably detected despite fluctuating scanning distances thanks to patented optical technology
- Very good depth of field
- Very simple setup (via button and control line)
- Even the smallest of color differences are reliably detected due to pulsed white light
- Varying light spot sizes depending on task

Optical data		Functions	
Scanning distance	See selection table	Indicator LED, green	Operating voltage indicator
Scanning distance tolerance	See selection table	Indicator LED, yellow	Switching output indicator
Type of light	LED, white	Color setting	Via teach-in button and control line
Light spot size	See selection table	Default setting	N.O.

Electrical data		Mechanical data	
Operating voltage, $+U_B$	12 … 28 V DC[2]	Dimensions	50 × 50 × 17 mm
No-load current, I_0	≤ 40 mA	Enclosure rating	IP 67[3]
Output current, Ie	≤ 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, M12, 5-pin, rotatable
Protective circuits	Reverse-polarity protection, U_B / short-circuit protection (Q)	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
Input IN ET (external teach-in)	> 12 V … 28 V: button locked < 3 V or open: normal operation Min. response time: 100 ms	Vibration and impact resistance	EN 60947-5-2
Input lock (button lock)	> 12 V … 28 V: button locked < 3 V or open: button free		
Switching output, Q	PNP		
Output function	N.O.		
Switching frequency, f (ti/tp 1:1)	≤ 500 Hz		

[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, 5-pin	FT 50 C-1-PSL5	575-11016
15 … 30 mm / ± 5 mm / 2 × 2 mm[1]	PNP	Plug, M12, 5-pin	FT 50 C-2-PSL5	575-11017
18 … 22 mm / ± 2 mm / 5 × 1 mm[1]	PNP	Plug, M12, 5-pin	FT 50 C-3-PSL5	575-11018

Plug connection

153-00826

17 · 46 · 44

50 · 4 · 4.3

Teach-in LEDs
Reference point
Transmitter
Receiver

11 · 50 · 24 · 4.3 · 4

16 · 14.2 · 4

M12x1

40 · 44

Connection, 5-pin

154-00262

Pin	Color	Signal
1	BN	$+U_B$
2	WH	IN ET
3	BU	$-U_B$
4	BK	Q
5	GY	Lock

Installation

155-01167

155-01228

10-30°
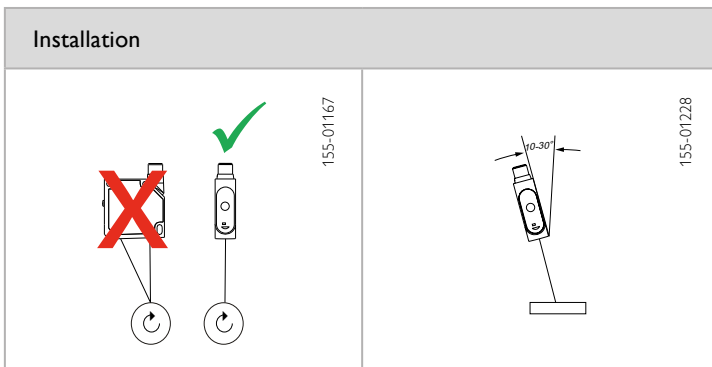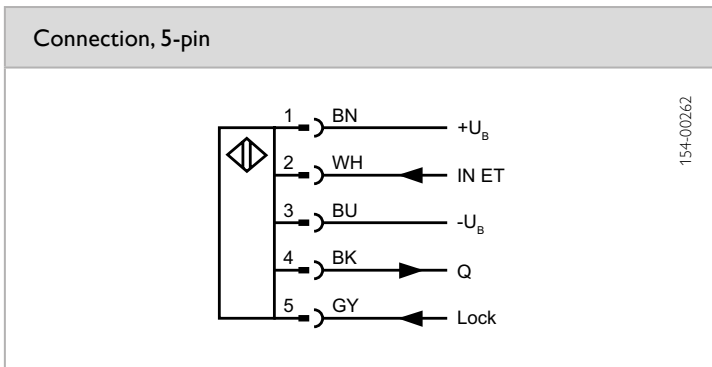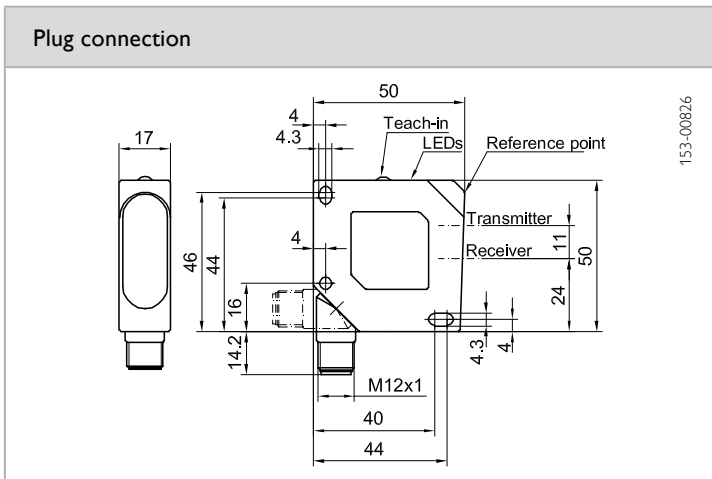
Accessories

Connection cables	From Page A-38
Brackets	From Page A-4

Version: 01/2019. Subject to changes; diagrams similar