

COLOUR SENSOR

FT 50 C...SI

Even more colourful and versatile.

Our new FT 50 C...SI colour sensor looks much the same as the standard model. However, with its integrated RS485 interface and additional functions it is even more versatile. The new sensor is able to internally manage five reference colours, which can be both taught-in and scanned. Colour selectivity and grey selectivity are now separately selectable, so that the sensor may be adapted to the application even more precisely.

But the most important improvement is definitely the integrated RS485 interface, a feature that enables a unique versatility that colour sensors previously could not offer. Set-up and parameterisation are either made by means of the control buttons on the sensor (teach-in) or by RS485-interface (via telegramme or with convenient PC software). In addition, any number of colours can be taught-in, saved and recalled as colour vectors via interface in the machine control system.

The **FT 50 C...SI** not only impresses with its versatility, but also with its basic technical features. These are the same as those of its award-winning predecessor which is still available. It operates with white light and was especially designed for the online colour detection in industrial operations and processes. Thanks to a special patented lens, the sensor also offers a unique depth of field, enabling it to detect even moving and vibrating objects in a reliable way.

Thus it is ideal for the automation of all industrial operations and processes, where the colour of an object or a coloured marking serves as criterion for detection or segmentation.



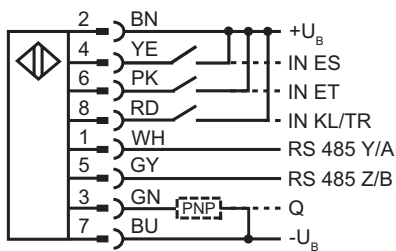
Features

- *Colour sensor for online colour detection in industrial operations and processes*
- *With switching output, control input and bus-compliant RS485 interface*
- *Via interface: transmission of colour channel or colour value, as well as reading, modification and saving of sensor parameters*
- *Teach-in of colours or scan of colour ranges*
- *Colour- and grey selectivity separately selectable*
- *Sensor-internal management of 5 reference colours*
- *Once taught-in, colours are reliably recognized even if scanning distance varies*
- *Available with three different light spot sizes*

Technical data (typ.)	FT 50 C-1-...	FT 50 C-2-...	FT 50 C-3-...
Optical data			
Scanning distance (from casing front edge)	12 ... 32 mm	15 ... 30 mm	18 ... 22 mm
Scanning distance tolerance in factory condition (medium level)	± 6 mm	± 5 mm	± 2 mm
Size of light spot	Ø 4 mm	2 x 2 mm ²	5 x 1 mm ²
Used light	White light (pulsed)		
Number of colours	5 storable		
Recording of reference colours	Function teach or scan		
Colour- / Intensity tolerance	Selectable (4 levels each)		
Electrical data			
Operating voltage	12 ... 28V DC		
Switching output / Communication	PNP or NPN (N.O. / N.C. selectable)		
Output current I _e	≤ 100 mA		
Switching frequency (ti/tp I:I)	max. 500 Hz		
Input KL / TR	Input key lock or triggering (selectable)		
Input IN ET	Control input for external teach		
Input IN ES	Control input for external scan		
Serial interface	RS485 (half-duplex)		
Protection circuits	Short-circuit protection, reverse battery protection (not RS485)		
VDE protection class	□		
Mechanical data			
Casing material	ABS, shock-resistant		
Protection standard	IP 67		
Ambient temperature range	-10 °C...+55 °C		
Connection	M12 plug, 8-pin, rotatable		

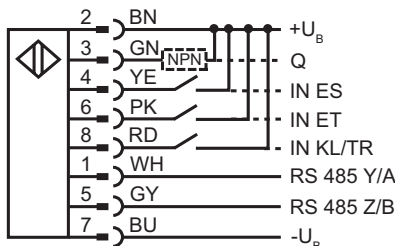
Wiring diagram PNP

I54-00473



Wiring diagram NPN

I54-00474



Dimensional drawing

I53-00350

