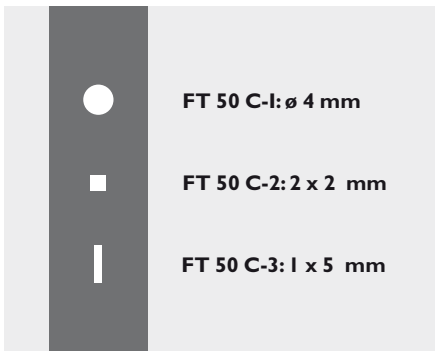# COLOUR SENSOR **FT 50 C**

The winner of the Baden-Württemberg Prize for Innovation excels due to its compactness and excellent colour selectivity.

FT 50 C

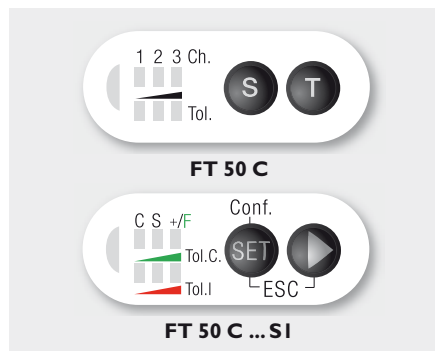All-purpose, compact device for on-line colour detection in industrial sequences and processes.

···⟩ **Teach-in of single colours or scanning of colour ranges**

···⟩ **Storage of reference colours in teach-in mode, either by pressing a key on the sensor or via an external input cable**

···⟩ **High colour selectivity, insensitive to fluctuating scanning distances**

···⟩ **Colour selectivity can be adjusted separately for each colour**

···⟩ **Three different sized light spots available**

···⟩ **FT 50 C standard: 3 separate colour channels and signal outputs for separation of objects.**

FT 50 C-I: ø 4 mm

FT 50 C-2: 2 x 2 mm

FT 50 C-3: I x 5 mm

1 2 3 Ch.
Tol.
S T
FT 50 C

C S +/F   Conf.
Tol.C.   SET
Tol.I   ESC
FT 50 C ... S I

Light spots
In order to cover as many application possibilities as possible, the FT 50 C is available with three different sized light spots:

Ø 4 mm   (at scanning distance 22 mm)
2 x 2 mm (at scanning distance 22 mm)
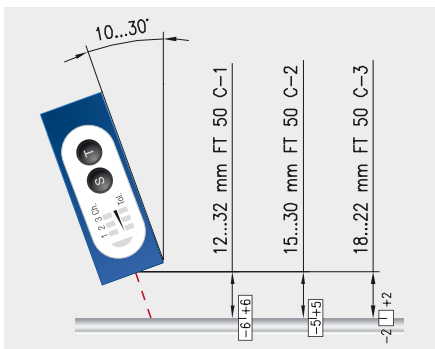I x 5 mm (at scanning distance 22 mm)

Keypad
All the sensor settings can be carried out using 2 keys.

7 LEDs provide a visual aid during teach-in and provide information on the signal status of the outputs.
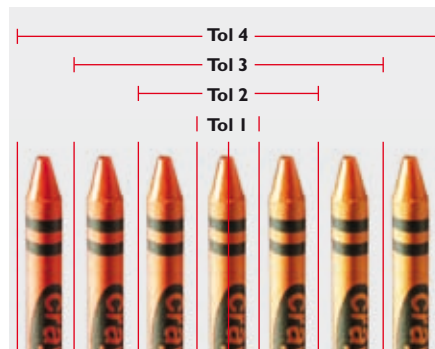
Scan function
With inhomogeneous colour surfaces, colour sequences can be scanned and stored using the scan function. Colours within the scanned colour spectrum are subsequently detected.

10...30°

12...32 mm FT 50 C–1
15...30 mm FT 50 C–2
18...22 mm FT 50 C–3

-6 +6   -5 +5   -2 +2

Tol 4
Tol 3
Tol 2
Tol I

Depth of focus
The depth of focus alters according to the size of the light spot:
+/- 6 mm (factory setting)
+/- 5 mm (factory setting)
+/- 2 mm (factory setting)

Tolerance ranges
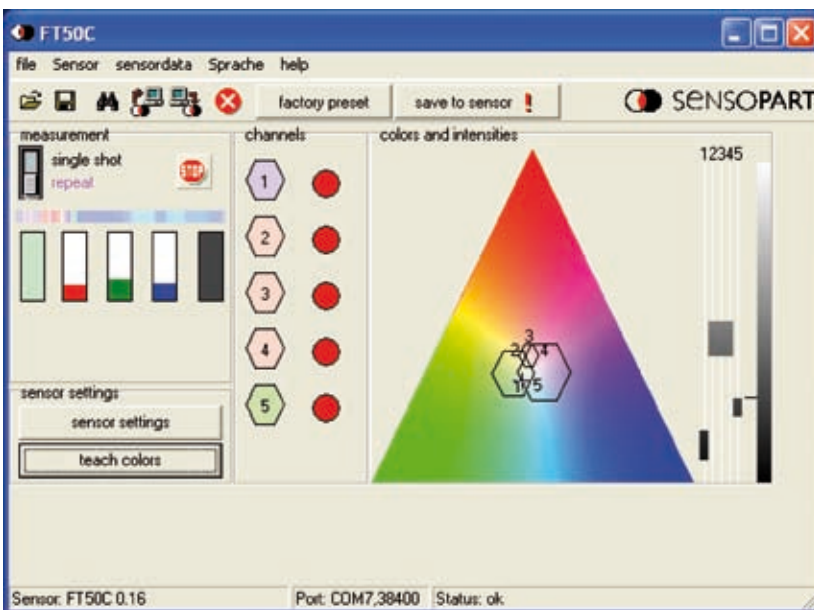The detection window can be adjusted by setting the colour selectivity.

COLOUR SENSOR **FT 50 C ... SI**
WITH SERIAL INTERFACE

The FT 50 C ... SI barely differs from the standard model in appearance, but has an integrated RS485 interface and other additional functions.
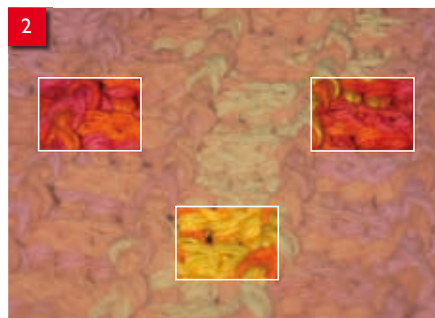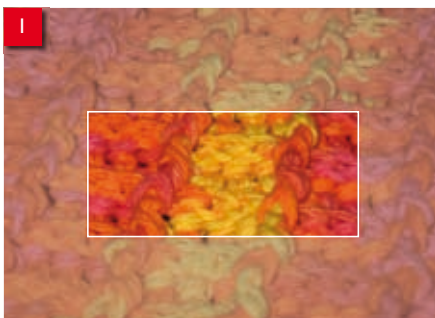

FT 50 C-S

Any number of colours can be taught in via the interface and stored in the control system in the form of colour vectors (data string with reference value incl. tolerances) and recalled later.

- **With switching output, control input and bus-compatible RS485 interface**
- **Interface enables transmission of colour channel or colour value as well as reading, modification and storage of sensor parameters**
- **Reference colours can be added or the colour range extended in up to 4 steps**
- **Colour and grey selectivity can be adjusted separately for every colour**

PC-based software

A combination of serial interface and PC software also makes it possible to control the entire scope of sensor functions from the PC. Interactive settings are possible and sensors can be easily adjusted to the respective application. Colour samples can also be stored after teach-in and reloaded again when required. Renewed teach-in is not necessary.

The latest software version can be found on the Internet under *www.sensopart.com*.

Colour scan

Inhomogeneous colour surfaces can be taught-in (scanned) with the aid of the integrated scan or scanplus function.

If a large colour range is scanned and allocated to a single channel, the sensor switches at every colour in the created colour spectrum (figure 1).

Improved selectivity is achieved with the scanplus function which can split this range into several parts (figure 2).

FT 50 C-3-PS1-L8

Order no.:	575-11009
Sensor principle:	Color and contrast sensors
Features:	Switching output, control input and bus-compatible RS485 interface
	Interface enables transmission of colour channel or colour value as well as reading, modification and storage of sensor parameters
	Reference colours can be added or the colour range extended in up to 4 steps
	Colour and grey selectivity can be adjusted separately for every colour
	Reflector operation possible (reflex foil RF10C, order type 904-51633)

product data

Housing:	cube
Connection type:	Plug M12 8-pin
Light type:	LED, White
Output:	PNP
Range:	18 ... 22 mm
Series:	F 50
Switching frequency:	500 Hz

Image may vary from product.

dimensional drawing
connection diagram

CE

Download

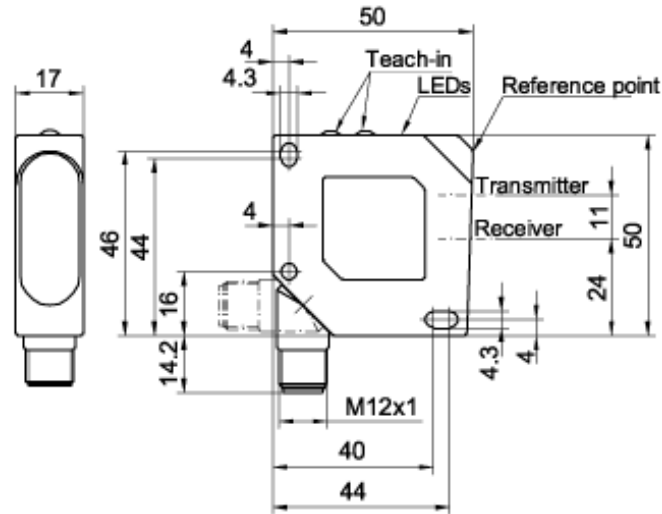| flyer:	2_IO-BOX_FT50CS1L8 (F)
	2_FT50C-S1 (F)
	2_FT50C_S1-IO (D)
	2_IO-BOX_FT50CS1L8 (E)
	2_FT50C-S1 (D)
	2_FT50C-S1 (E)
	2_IO-BOX_FT50CS1L8 (D)
software:	SETUP_PROGSENSOR_2.20.7.0
manual:	FT50C_S1 (D, E, F)
CAD files:	15300590_F50.zip

ACCESSORIES

Mounting components
» MSP F50
Mounting bracket F50

» MS F50
mounting set (bracket and screws) for F 50

dimensional drawing:

connection diagram: