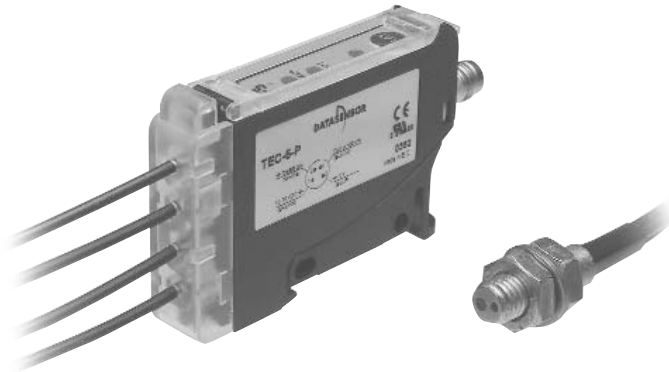
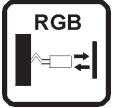


FIBRE-OPTIC COLOUR SENSORS



- *Detection of one single colour or chromatic range*
- *Microprocessor-based teach-in setting*
- *Patent-covered CLEARLOCK™ fibre fixing system*
- *M8 connection*

TEC SERIES


The fibre-optic sensors of the **TEC** series offer a versatile and effective solution for the detection of objects, surfaces, register marks, or other references on the basis of their colour.

The diffused proximity optic system is based on a RGB (red-green-blue) LED emission; the received signal is elaborated and recognised by the microprocessor that also controls the output with a response time inferior to 1 ms.

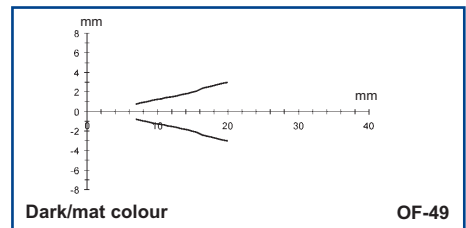
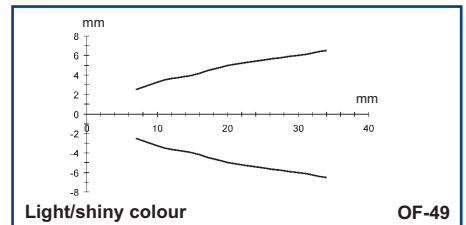
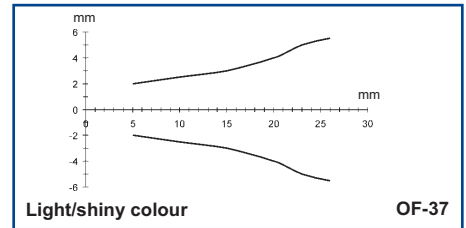
The sensors can recognise a precise colour, or various colours inside a chromatic range included between two references memorised during the setting phase. The output is activated every time the colour or memorised chromatic range is recognised.

Three patent-covered solutions are present: the RGB emission control and the amplifier's thermic compensation guaranteeing the maximum sensitivity in detection; the transparent *CLEARLOCK™* system allows the verification of the correct insertion and fixing of the fibre-optics, as well as the identification of the light sources.

TECHNICAL DATA

Power supply:	10 ... 30 Vdc, reverse polarity protection
Consumption:	60 mA max.
Light emission:	red 660 nm, blue 470 nm, green 525 nm LED
Resolution:	2 mm at 10 mm
Diffuse proximity operating distance:	5 ... 25 mm on light/shiny colour (OF-37) 7 ... 17 mm on dark/mat colour (OF-37) 7 ... 34 mm on light/shiny colour (OF-49) 7 ... 20 mm on dark/mat colour (OF-49)
Depth of field:	10 mm min.
Setting:	SET push-button
Indicators:	yellow OUTPUT LED green TIMER LED green/red bi-colour SET/ERROR LED
Output type:	PNP, open collector
Saturation voltage:	2 V max.
Output current:	100 mA max., short-circuit protection
Response time:	0.9 ms max.
Switching frequency:	550 Hz max.
Timing function:	40 ms minimum output ON
Operating mode:	output active during colour detection
Connection:	M8 4-pole connector
Electrical protection:	class 2
Mechanical protection:	IP65
Housing material:	polycarbonate
Weight:	30 g max.
Operating temperature:	-10 ... +55°C
Storage temperature:	-20 ... +70°C
Reference standard:	EN 60947-5-2
Certifications:	CE  US LISTED
OF-37 / OF-49 fibre-optic data:	fibre in PMMA with PET sheath, operating temperature: -40 ... +60°C

DETECTION DIAGRAMS

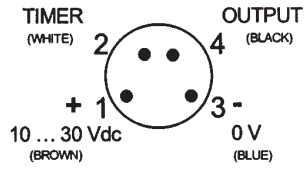


The operating distances indicate the detection distance with excess gain 2.

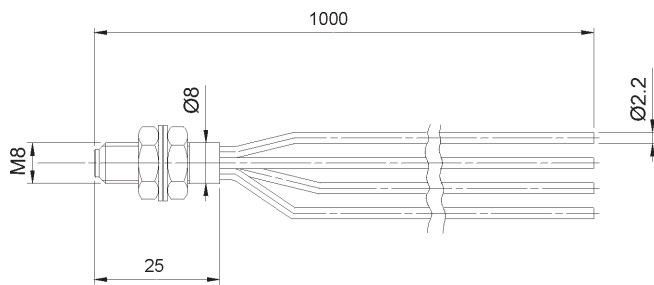
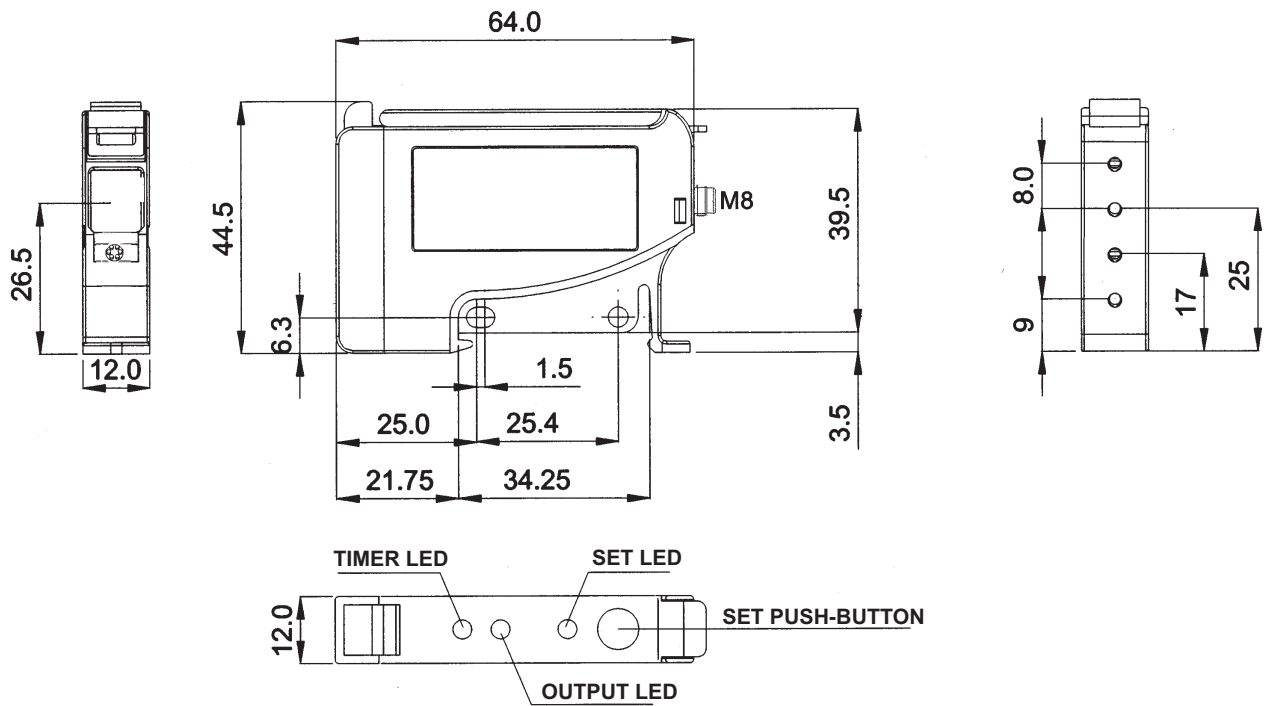
The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS

M8 CONNECTOR



DIMENSIONS



OF-37



OF-49





MODEL SELECTION AND ORDER INFORMATION

MODEL	CONNECTION	OUTPUT	CODE N°
TEC-6-P	M8 connector	PNP	950501130

* Fibre-optic has to be ordered separately

ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	CODE N°
ST-505	1 pc 'L' shaped fixing bracket	95ACC2800
CRD-5000	1 pc DIN rail fixing bracket	95ACC2790
OF-37-10	diffused proximity fibre-optic	95A201050
OF-49-10	high resolution fibre-optic	95A201360
AF-11	fibre-cutting tool	95ACC2780

Please refer also to the M8 connectors of the **CS** series

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