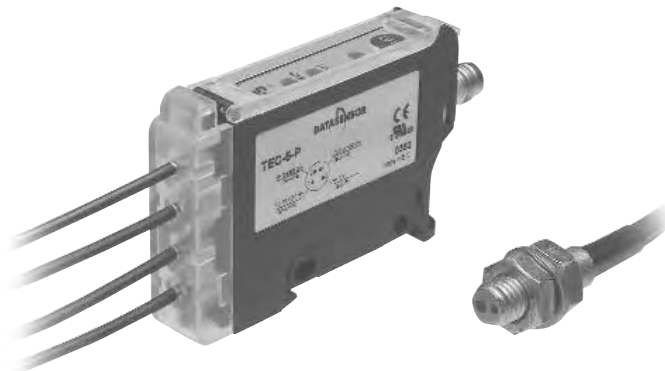
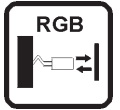


FIBRE-OPTIC COLOUR SENSORS



- *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.

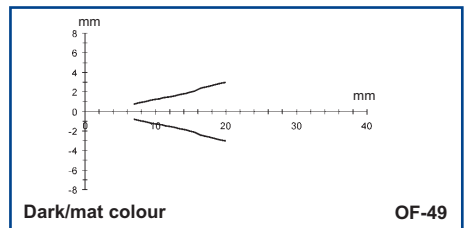
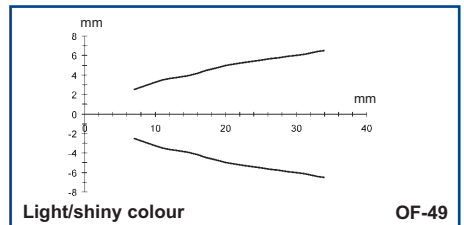
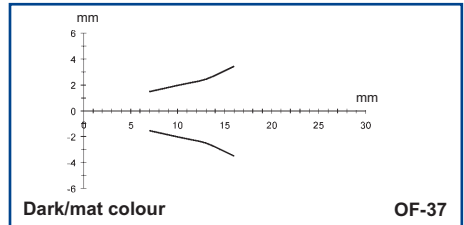
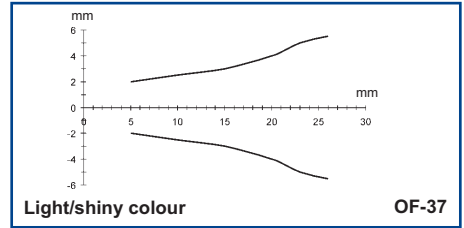
Three patent-covered solutions are present: the RGB emission control and the amplifier's thermic compensation guaranteeing the maximum sensitivity in detection; the transparent *CLEARLOCK™* system allows the verification of the correct insertion and fixing of the fibre-optics, as well as the identification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



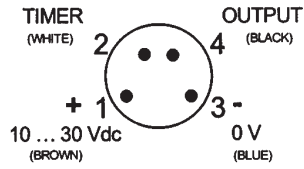
The operating distances indicate the detection distance with excess gain 2.



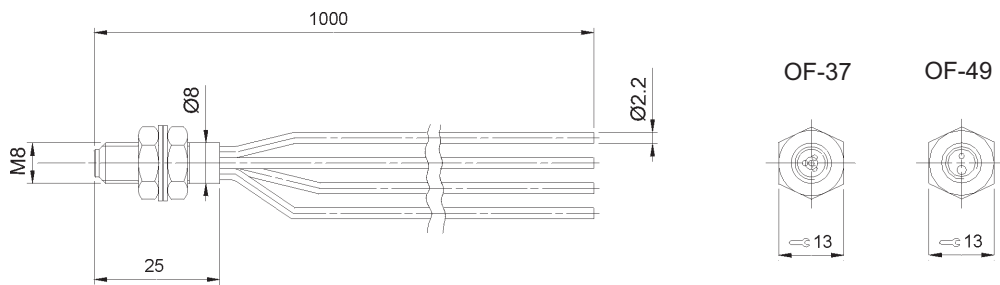
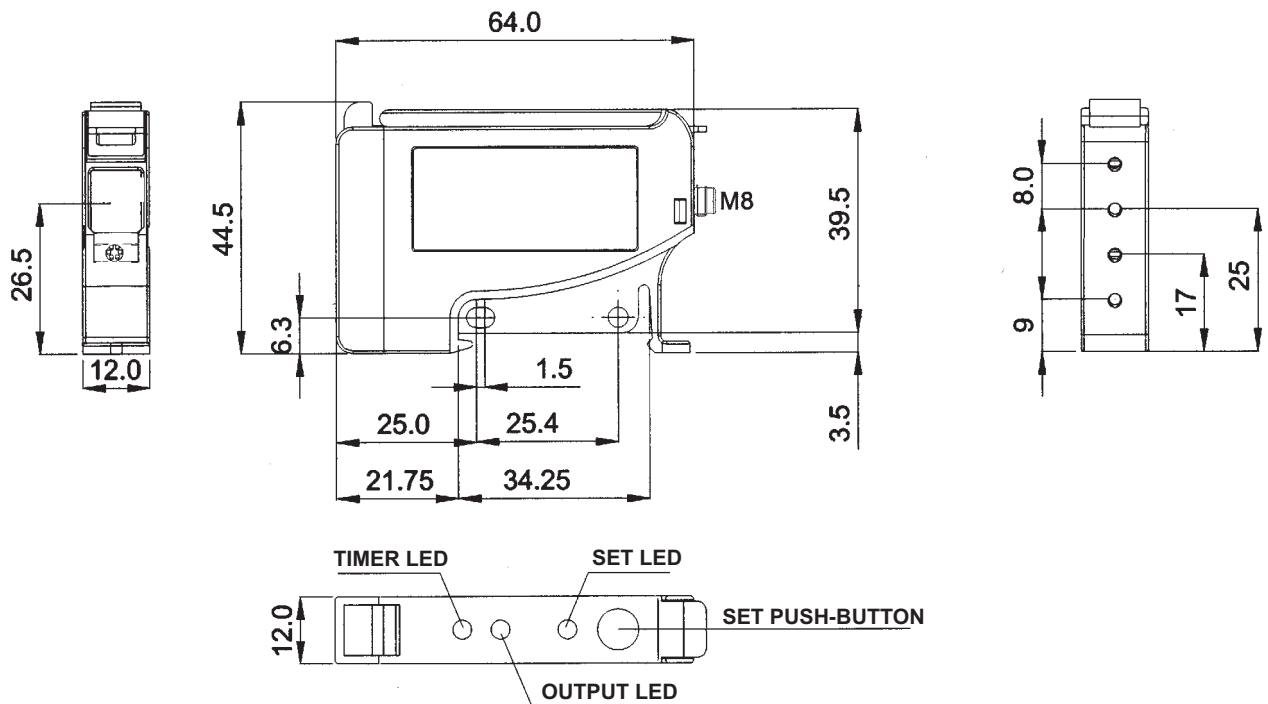
The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS

M8 CONNECTOR



DIMENSIONS



mm



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	95ACC1300
CRD-5000	1 pc DIN rail fixing bracket	95ACC1290
OF-37-10	diffused proximity fibre-optic	95A201050
OF-49-10	high resolution fibre-optic	95A201360
AF-11	fibre-cutting tool	95ACC1260

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

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COLOUR SENSORS

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