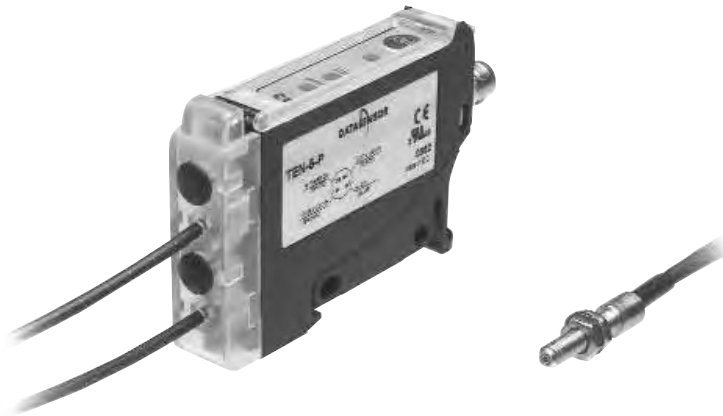
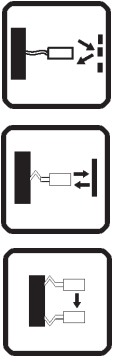


DIN RAIL MOUNTING μ P BASED SENSORS



- *Models with low response time: 100 μ s*
- *Sensor guided fibre alignment and Teach-in setting*
- *M8 connector or cable with Remote function*
- *Patent-covered CLEARLOCK™ fibre fixing system*

TEN SERIES

The **TEN** series has been developed to guarantee the best performances with the extremely various plastic fibre-optic accessories.

Different models are available: models with 1.5 kHz switching frequency for the longer operating distances, or 5 kHz models with only 100 μ s response time and double red/green selectable emission, that can be also used as contrast sensors to detect coloured marks.


The setting is obtained by means of a SET push-button and thanks to a tri-colour LED that guides the operations, signalling the correct optic fibre alignment.

Moreover a 2 bit anti-interference system that, within the response time, uses another confirmation pulse before switching the output and a special high-sensitivity amplification circuit to also detect transparent objects are present.

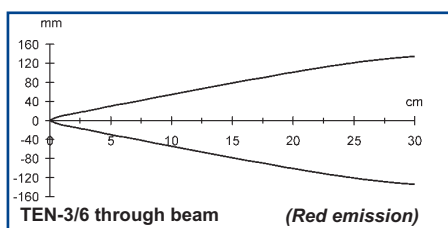
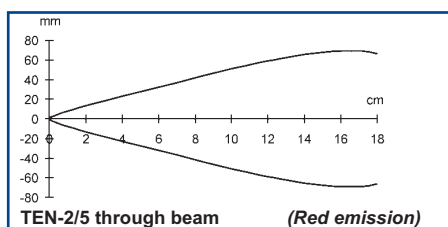
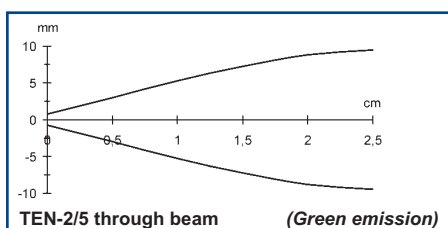
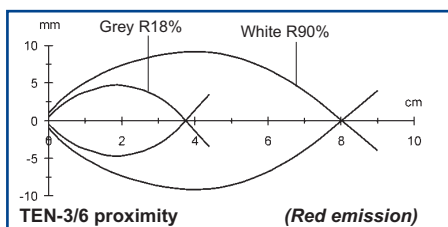
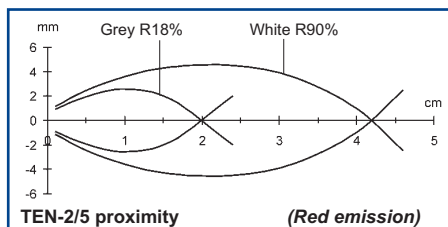
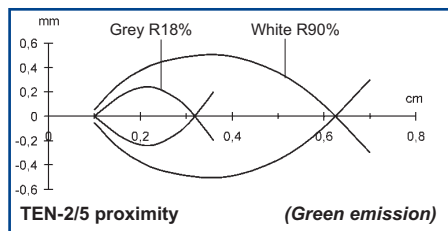
The exclusive patent-covered *CLEARLOCK™* solution allows the visible verification of the correct fibre-optic insertion, as well as the identification of the light sources.



TECHNICAL DATA

Power supply:	12 ... 24 Vdc \pm 10%, reverse polarity protection
Consumption:	60 mA max.
Light emission:	selectable green 565 nm or red 660 nm only red 660 nm (TEN 3/6)
Diffuse proximity operating distance:	1 ... 6 mm (TEN2/5 green emission) 1 ... 40 mm (TEN2/5 red emission) 0 ... 75 mm (TEN3/6 red emission)
Through beam operating distance:	0 ... 25 mm (TEN2/5 green emission) 0 ... 180 mm (TEN2/5 red emission) 0 ... 300 mm (TEN3/6 red emission)
Setting:	automatic with SET push-button Remote by cable
Indicators:	yellow OUTPUT LED 3 colour SET/ERROR LED green TIMER LED (TEN 2/5)
Output type:	NPN or PNP, open collector
Saturation voltage:	1 V max. (NPN vers.) 2 V max. (PNP vers.)
Output current:	100 mA max., short-circuit protection
Response time:	100 μ s max. (TEN 2/5) 333 μ s max. (TEN 3/6)
Switching frequency:	5 KHz max. (TEN 2/5) 1.5 KHz max. (TEN 3/6)
Timing function:	40 ms minimum output ON (TEN2/5)
Operating mode:	dark/light selectable
Connection:	M8 4-pole connector (TEN 5/6) 2 m \varnothing 4.5 mm cable (TEN 2/3)
Electrical protection:	class 2
Mechanical protection:	IP65
Housing material:	polycarbonate
Weight:	30 g max. (connector vers.) 115 g max. (cable vers.)
Operating temperature:	-10 ... +55°C
Storage temperature:	-25 ... +70°C
Reference standard:	EN 60947-5-2
Certifications:	CE  US LISTED

DETECTION DIAGRAMS

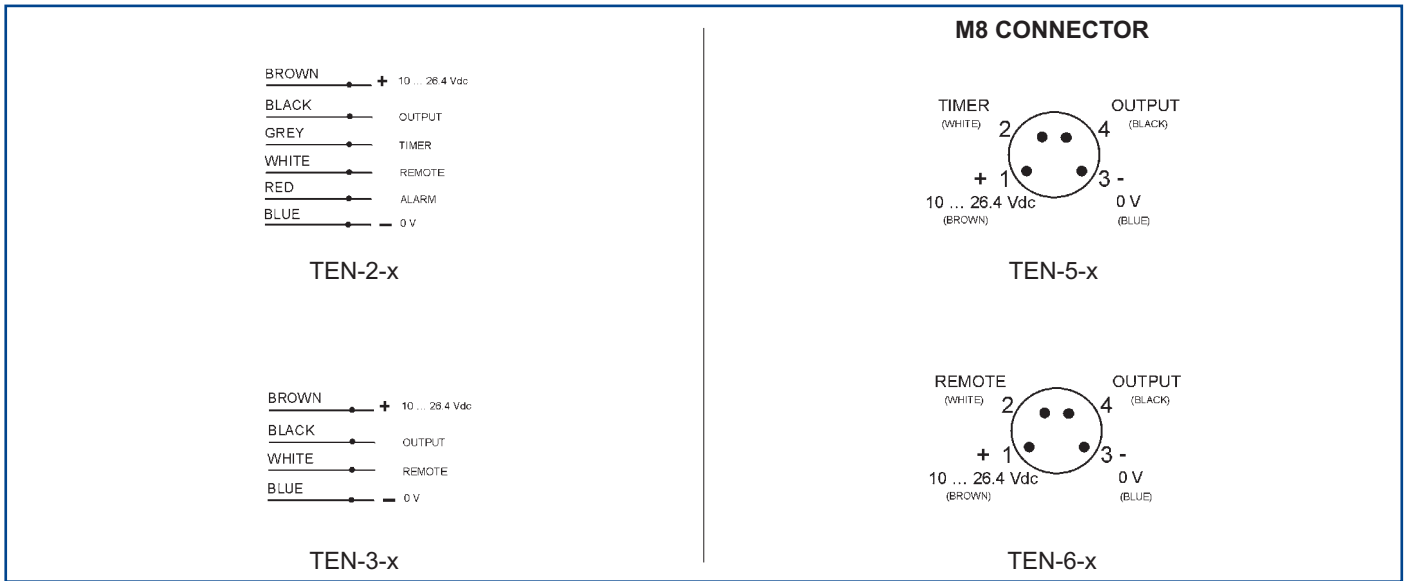


The operating distances indicate the detection distance with standard fibre-optics (refer to **OF** series) and excess gain 2.

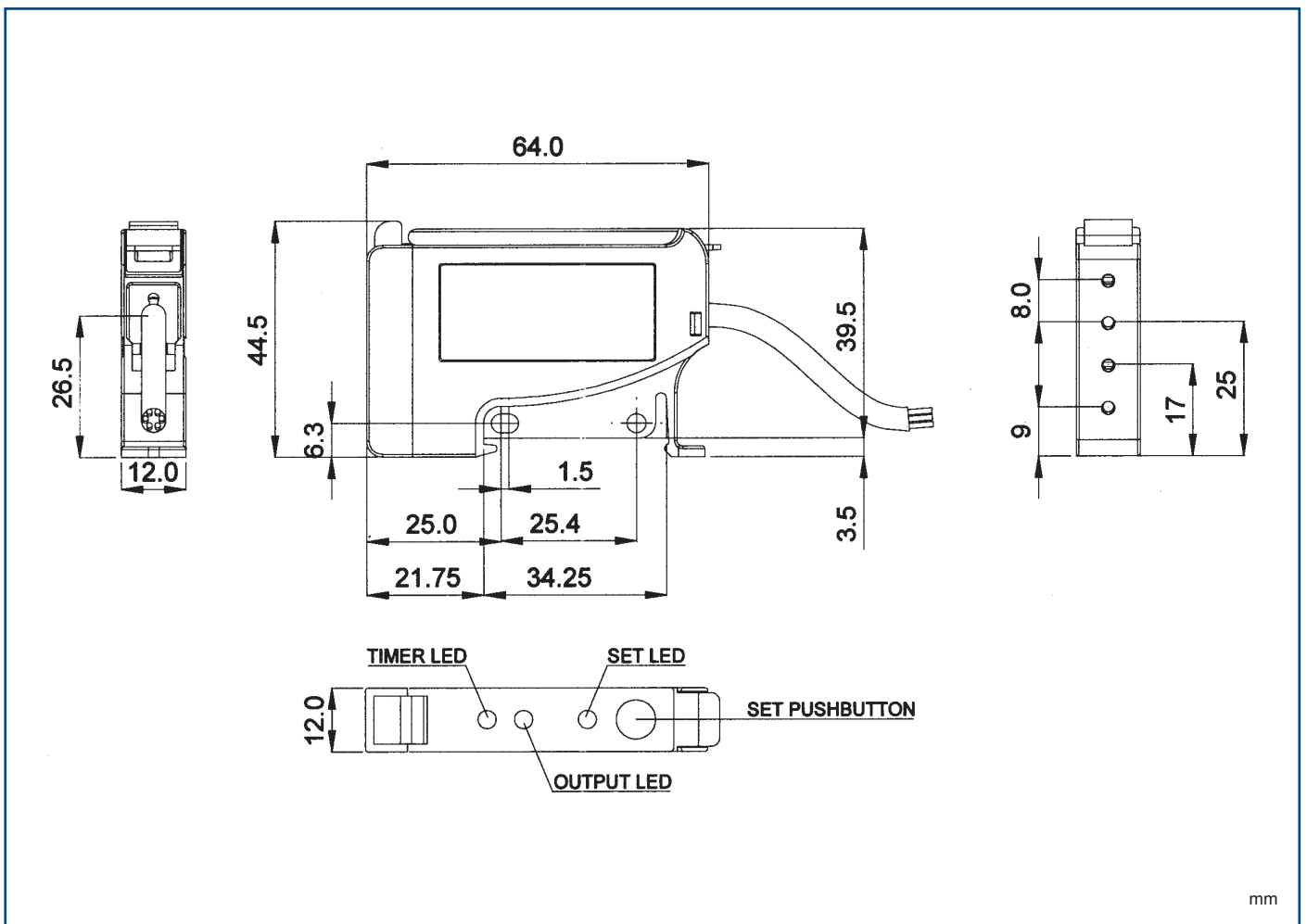
The detection diagrams indicate the typical operating distance with excess gain 1.



CONNECTIONS



DIMENSIONS





MODEL SELECTION AND ORDER INFORMATION

MODEL	CONNECTION	OUTPUT	FREQUENCY	CODE N°
TEN-2-N	6-pole cable	NPN	5 KHz	950451000
TEN-2-P	6-pole cable	PNP	5 KHz	950451010
TEN-3-N	4-pole cable	NPN	1.5 KHz	950451040
TEN-3-P	4-pole cable	PNP	1.5 KHz	950451050
TEN-5-N	M8 4-pole connector	NPN	5 KHz	950451020
TEN-5-P	M8 4-pole connector	PNP	5 KHz	950451030
TEN-6-N	M8 4-pole connector	NPN	1.5 KHz	950451060
TEN-6-P	M8 4-pole connector	PNP	1.5 KHz	950451070

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

Please refer also to **Sensor Accessories**

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FIBRE-OPTIC SENSORS