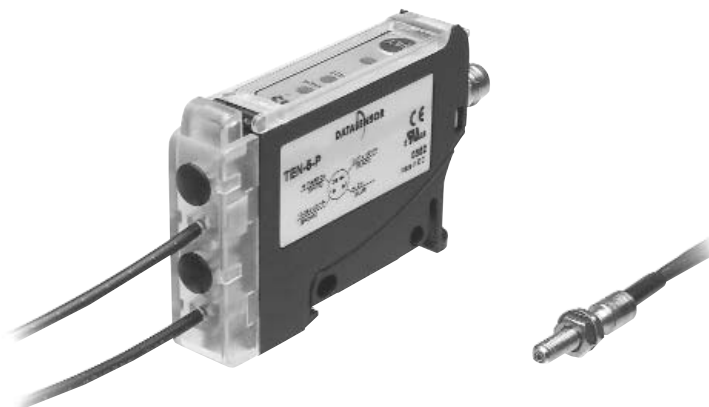
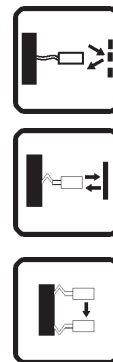


DIN RAIL MOUNTING μ P BASED SENSORS



- *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.

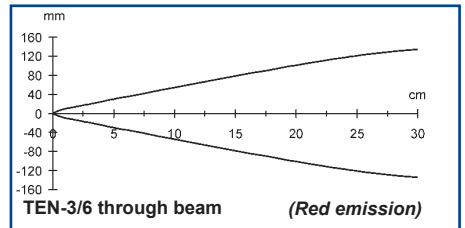
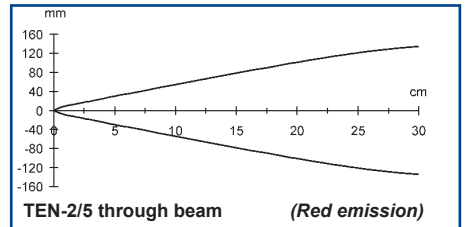
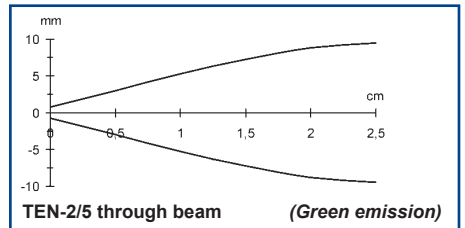
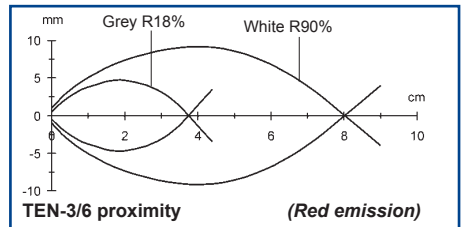
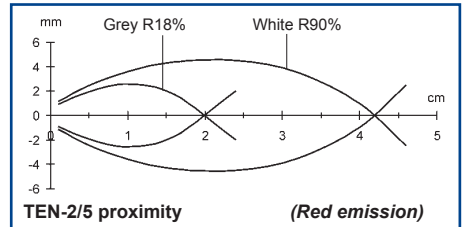
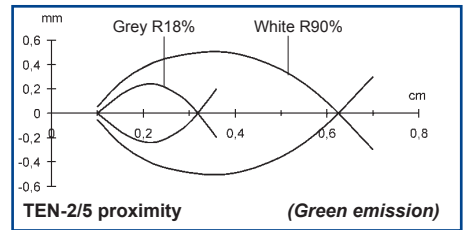
The exclusive patent-covered *CLEARLOCK™* solution allows the visible verification of the correct fibre-optic insertion, as well as the identification of the light sources.

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:	  

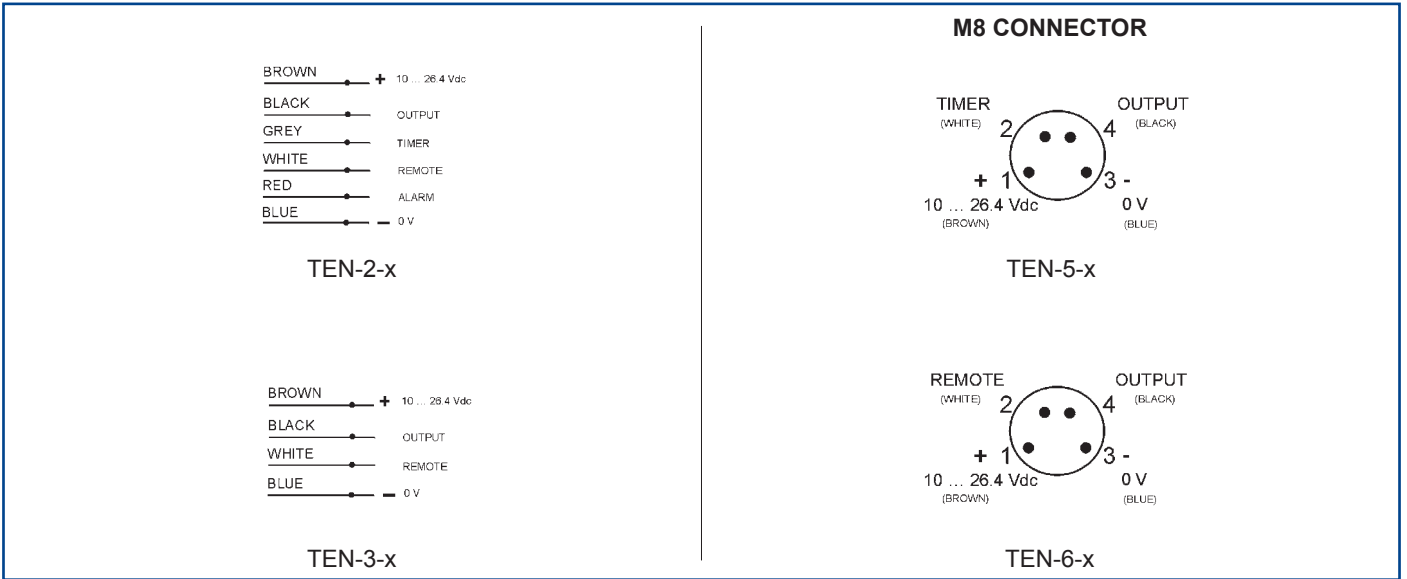
The operating distances indicate the detection distance with standard fibre-optics (refer to OF series) and excess gain 2.

DETECTION DIAGRAMS

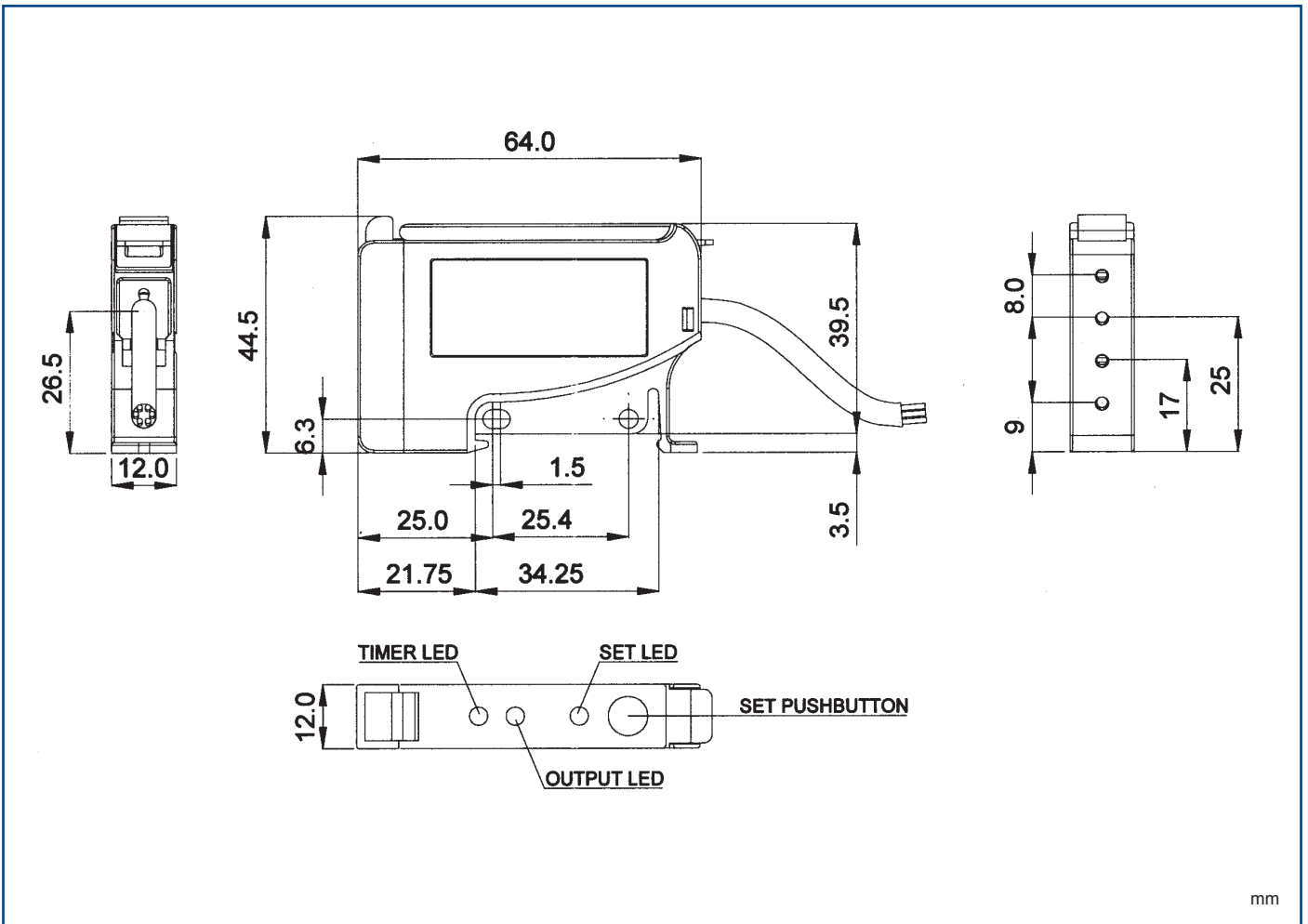


The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS



DIMENSIONS



MODELS

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

ACCESSORIES

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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