



- *Incandescent lamp emission*
- *Optic adjustment of the sensitivity*
- *8, 28 and 50 mm lenses available*
- *Dark/light mode selector*

TL10 SERIES

The **TL10** series is composed of analog contrast sensors with incandescent lamp emission with long life and easy interchangeability.

The sensors present a mechanical multi-turn optic adjuster for the sensitivity regulation, a switch for the dark/light operating mode selection and a red LED that signals the NPN transistor output activation.

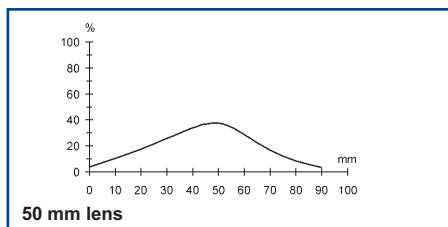
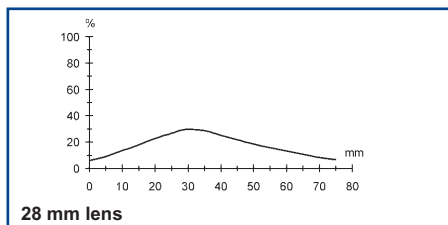
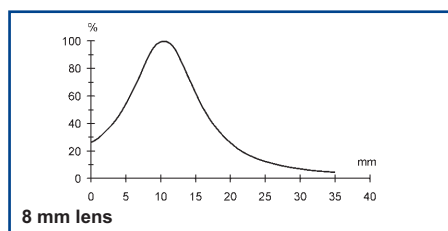
Different models are available with 8, 28 and 50 mm lenses.

The sensors of the **TL10** series and relative accessories are available as spare parts. Contrast sensors of the **TL μ** series are recommended for replacements, new applications and improved performances.

TECHNICAL DATA

Power supply:	10 ... 30 Vdc, reverse polarity protection 4.5 Vac for lamp emission
Consumption:	50 mA max.
Light emission:	4.5 V (0,8 A) incandescent lamp
Spot dimension:	5 x 1 mm (8 mm lens) 6 x 2.5 mm (28 mm lens) 8 x 2.5 mm (50 mm lens)
Operating distance:	8 ... 12 mm (8 mm lens) 28 ... 36 mm (28 mm lens) 46 ... 54 mm (50 mm lens)
Depth of field:	±2 mm (8 mm lens) ±4 mm (28 and 50 mm lenses)
Setting:	mechanical multi-turn actuator
Indicators:	red OUTPUT LED
Output type:	NPN
Saturation voltage:	1.4 V max.
Output current:	100 mA max., short-circuit protection
Response time:	50 µs max.
Switching frequency:	10 KHz max.
Operating mode :	dark/light selectable
Connection:	3 m Ø 5.5 mm cable cable with Amphenol connector
Electrical protection:	class 1
Mechanical protection:	IP67
Housing material:	ZAMA
Lens material:	glass
Weight:	600 g max.
Operating temperature:	-10 ... +55°C
Storage temperature:	-20 ... +70°C
Fibre operating temperature:	-30 ... +60°C
Reference standard:	EN 60947-5-2
Certifications:	CE

DETECTION DIAGRAMS

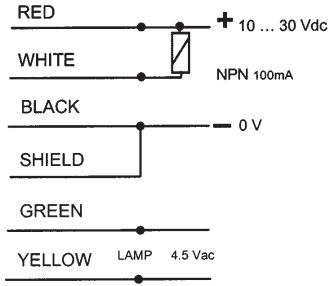


The operating distances indicate the detection distance with excess gain 2.

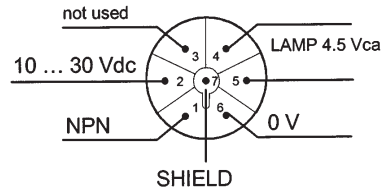
The detection diagrams indicate the typical operating distance with excess gain 1.

CONNECTIONS

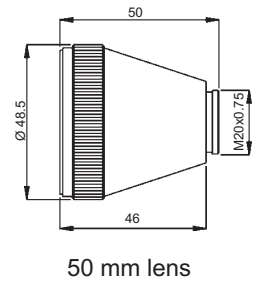
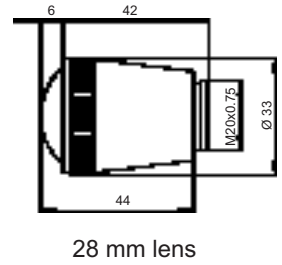
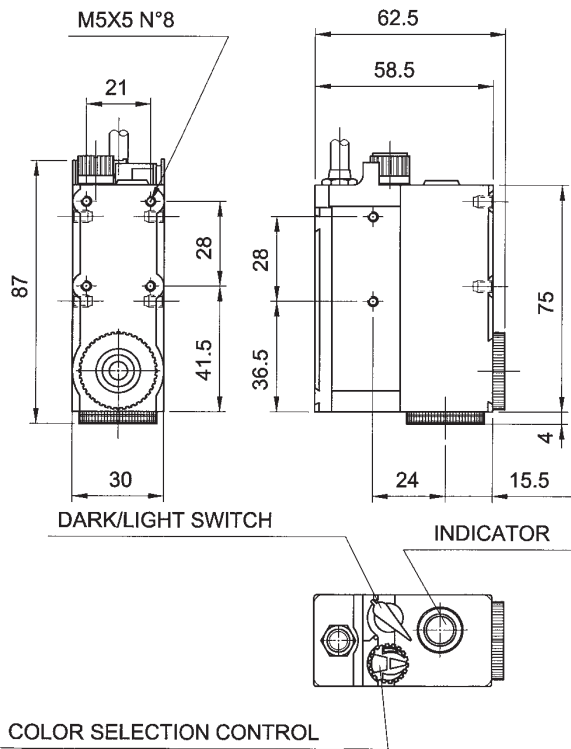
CABLE VERSIONS



AMPHENOL CONNECTOR VERSIONS



DIMENSIONS



MODEL SELECTION AND ORDER INFORMATION

MODEL	OPTICS	SPOT	CONNECTION	OUTPUT	CODE N°
TL10-011	8 mm	vertical	cable	NPN	S917660100
TL10-012	8 mm	vertical	Amphenol connector	NPN	S917660105
TL10-011L	8 mm	horizontal	cable	NPN	S917660102
TL10-021	28 mm	vertical	cable	NPN	S917660101
TL10-031	50 mm	vertical	cable	NPN	S917660103

ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	CODE N°
010066	6V/6W lamp vertical spot (standard vers.)	S2600030
010067	6V/6W lamp horizontal spot (90° vers.)	S2610300

Please refer also to **Sensor Accessories**

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CONTRAST SENSORS