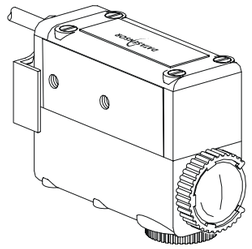
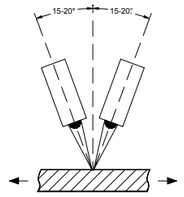
TL10 SERIES
INSTRUCTION MANUAL



The TL10 optic head is the perfect solution for all coloured marks reading problems.

ASSEMBLY

- The optic head TL10 is equipped with 8 threaded bores on three of its faces, thus permitting 6 different assembly positions. The working position is immaterial to the assembly position. Assembly on “silent block” is advisable should the machine cause strong vibrations.
- The beam direction may be changed swapping the cap and the lens.
- The distance of the reading head from the reading surface depends on the lens that is being used (see par. “ACCESSORIES”).
  After assembly it is important that the optic head should be at the focal distance, i.e. that the light spot be as clear and as concentrated as possible.
- If the material is very shiny (a metal plate) it is advisable to tilt the reading head 15° to 20° in relation to the material that is to be read and to the direction of the material’s movement.



CONNECTIONS

The optic head TL10 is already supplied with a connection cable.
Connection with the power supply can be made:
- directly with the cable to the coloured terminals (fig.1)
- by means of a numbered connector (fig.2)

1 = white
2 = red
4 = yellow
5 = green
6 = black

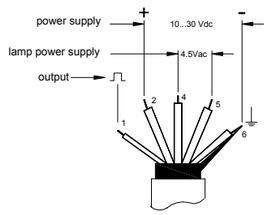
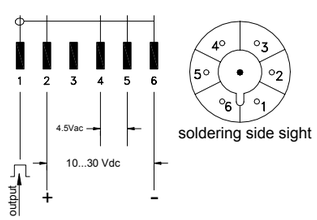


Fig.1

1 = white
2 = red
4 = yellow
5 = green
6 = black
shield

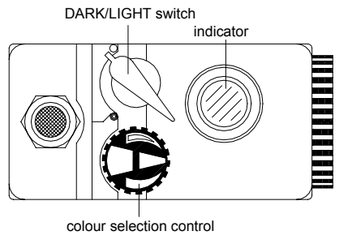


soldering side sight

Fig.2

LIGHT/DARK BAR DEFINITION

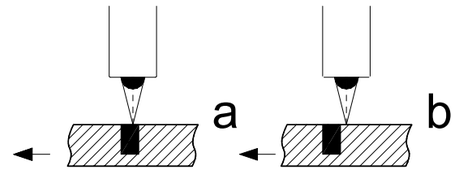
The optic head is able to read light mark on a dark background or dark mark on a light background.
A switch enables one to choose the working mode desired.
Position ❶ : reading of dark marks on light background
Position ○ : reading of light marks on dark background



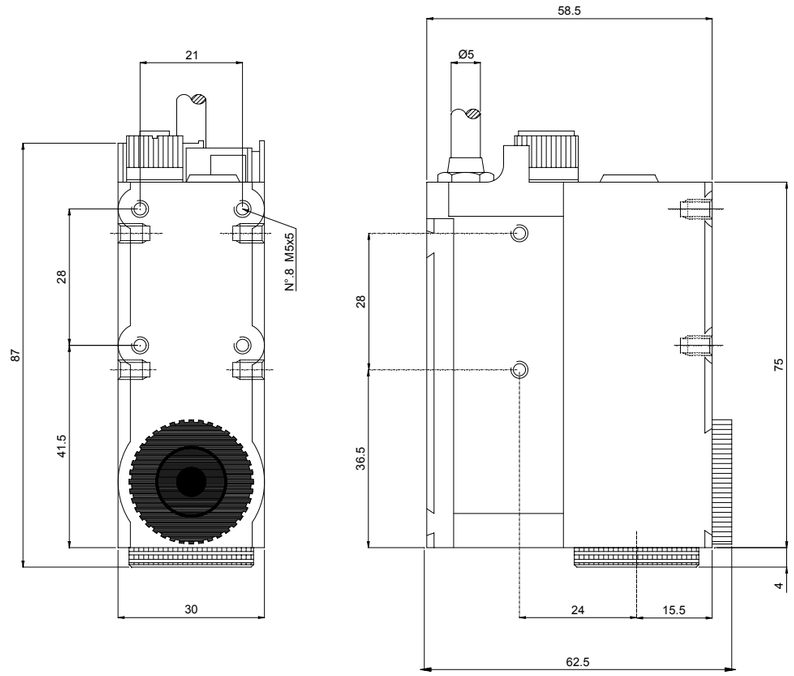
There are two arrows (one dark and one light) marked on the sensitività regulation knob. These indicate the rotation direction to be observed in order to obtain a correct calibration.

ADJUSTING THE SWITCHING POINT

- Place the bar below the reading light spot (ref.a).
- Once the dark/light switch has been positioned, turn the settino knob in the direction of the arrow corresponding to the setting of the switch until the signal LED lights up.
- Make a note of the position.
- Place background under the light spot (ref.b), the LED should go OFF.
- Turn the calibration knob in the same direction while counting the turns until the LED comes back ON.
- Turn the knob back again half of the turns counted.



DIMENSIONS



TECHNICAL DATA

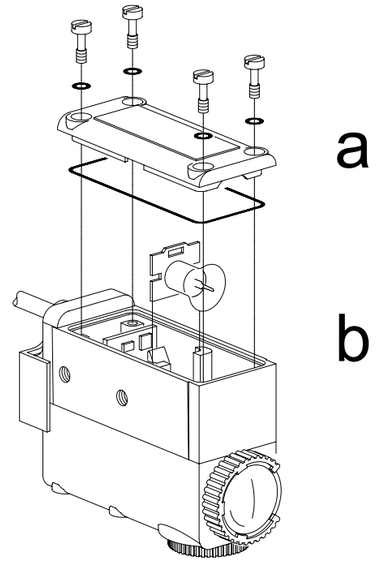
Power supply:	10…30 Vdc reverse polarity protection
Current consumption:	50 mA max.
Output:	NPN (short-circuit protection)
Output current:	100 mA max.
Output saturation voltage:	1.4 V max.
Response time:	50 μs max.
Switching frequency:	10 KHz max.
Indicators:	OUTPUT LED (RED)
Setting:	mechanical multi-turn actuator
Operating temperature:	-10…+55 °C
Storage temperature:	-20…+70 °C
Electric shock protection:	Class 1
Minimum spot dimension:	5x1 mm (8 mm lens) 6x2.5 mm (28 mm lens) 8x2.5 mm (50 mm lens)
Operating distance:	8…12 mm (8 mm lens) 28…36 mm (28 mm lens) 46…54 mm (50 mmlens)
Depth of field:	±2 mm (8 mm lens) ±4 mm (28 and 50 mm lens)
Emission type:	4.5 V (0.8 A) incandescent lamp
Ambient light rejection:	according to EN 60947-5-2
Vibration:	0.5 mm amplitude, 10 … 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
DARK/LIGHT selection:	DARK/LIGHT selectable by external switch
Housing:	ZAMA
Lens:	glass
Protection class:	IP67
Connections:	3 m cable ∅ 5.5 mm / cable with Amphenol connector
Weight:	600 g. max.

MAINTENANCE

Thanks to its sturdy design, this piece of equipment needs hardly any maintenance at all. It is enough to keep the lens clean using a soft cloth without solvents or other corrosive substances.

REPLACING THE PROJECTION LAMP

- Disconnect the power supply.
- Remove the cover by unscrewing the 4 screws (ref.a).
- Remove the lamp from its support, by pulling it in the vertical direction (ref.b).
- Insert the new lamp which is already calibrated and therefore requires no adjustment.
- Re-lock the apparatus, while checking the condition and position of the gasket.



ACCESSORIES

Description	Order No.
- 6V/6W lamp	S2600030
- 6V/6W lamp spot 90°	S2610300

DECLARATION OF CONFORMITY
We DATASENSOR S.p.A. declare under our sole responsibility that these products are conform to the 2004/108/CE, 2006/95/CE Directives and successive amendments.

WARRANTY
DATASENSOR S.p.A. warrants its products to be free from defects.
DATASENSOR S.p.A. will repair or replace, free of charge, any product found to be defective during the warranty period of 36 months from the manufacturing date.
This warranty does not cover damage or liability deriving from the improper application of DATASENSOR products.

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