RLS1nd

ALGE-TIMING

Manual

Important Information

General

Before using your ALGE·TIMING device read the complete manual carefully. It is part of the device and contains important information about installation, safety and its intended use. This manual cannot cover all conceivable applications. For further information or in case of problems that are mentioned not at all or not sufficiently detailed, please contact your ALGE·TIMING representative. You can find contact details on our homepage www.alge-timing.com

Safety

Apart from the information of this manual all general safety and accident prevention regulations of the legislator must be taken into account.
The device must only be used by trained persons. The setting-up and installation must only be executed according to the manufacturer's data.

Intended Use

The device must only be used for its intended applications. Technical modifications and any misuse are prohibited because of the risks involved! ALGE·TIMING is not liable for damages that are caused by improper use or incorrect operation.

Power supply

The stated voltage on the type plate must correspond to voltage of the power source. Check all connections and plugs before usage. Damaged connection wires must be replaced immediately by an authorized electrician. The device must only be connected to an electric supply that has been installed by an electrician according to IEC 60364-1. Never touch the mains plug with wet hands! Never touch live parts!

Cleaning

Please clean the outside of the device only with a smooth cloth. Detergents can cause damage. Never submerge in water, never open or clean with wet cloth. The cleaning must not be carried out by hose or high-pressure (risk of short circuits or other damage).

Liability Limitations

All technical information, data and information for installation and operation correspond to the latest status at time of printing and are made in all conscience considering our past experience and knowledge. Information, pictures and description do not entitle to base any claims. The manufacturer is not liable for damage due to failure to observe the manual, improper use, incorrect repairs, technical modifications, use of unauthorized spare parts. Translations are made in all conscience. We assume no liability for translation mistakes, even if the translation is carried out by us or on our behalf.

Disposal

If a label is placed on the device showing a crossed out dustbin on wheels (see drawing), the European directive 2002/96/EG applies for this device.
Please get informed about the applicable regulations for separate collection of electrical and electronical waste in your country and do not dispose of the old devices as household waste. Correct disposal of old equipment protects the environment and humans against negative consequences!
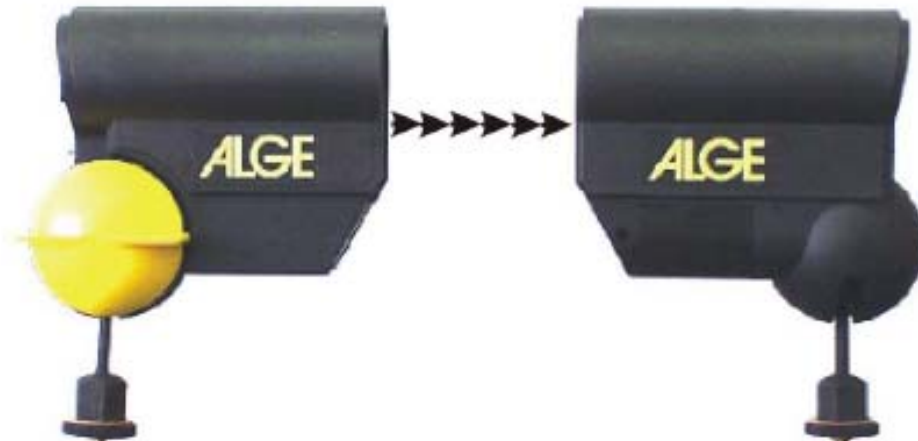
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Transmitter – Receiver   Photocell RLS1nd

The ALGE photocell system RLS1nd can be used between distances of 0 to 150 meters between transmitter and receiver.

Principle:

Transmitter RLS1n sends a modulated infra-red ray. The ray is controlled by the receiver RLS1nRX against interferences. In case of interference of the ray, the receiver will trigger out an impulse.

Transmitting photocell RLS1n:

The transmitter has got a transmitting and receiving electronic. Together with a reflector you can use it as reflection photocell.

The switcher at the back of the photocell is for switching-on or off the internal battery.

Receiving photocell RLS1nRX:

The receiver has got a transmitting and receiving electronic. A switcher at the back of the photocells is for switching-on or off the transmitting parts, the other one to switch-on or off the battery.
The transmitting part must be switched-on in order to make any adjustments (switcher on"adjust").
At measuring, switch the transmitting part of the receiver to "race".
The receiver RLS1nRX can be used – together with a reflector – as reflection photocell. Then the switcher must stand on "adjust".

Supply :

Transmitter RLS1n:

The transmitter is supplied by an internal battery. As internal battery, you can use an Alkaline battery or a NiCd accumulator.

Receiver RLS1nRX:

The receiver is supplied by a 3-wired cable of the timing device or by an internal battery.
If the receiving part is supplied by an internal battery, then you can use a 2-wired cable to the timing device (e.g. cable reel with 300m field telephone cord KT300).

Operating time by usage of batteries:

Transmitting part RLS1n: Alkaline battery   approx. 40 hours
    NiCd accumulator   approx. 18 hours
Receiving part RLS1nRX: Alkaline battery   approx. 160 hours (transmitting part OFF)
    NiCd accumulator   approx. 72 hours (transmitting part OFF)

The details above are valid at 20°C. If the photocell is used at –20°C, then the operating time will decrease at a Alkaline battery for approx. 75%, at a NiCd-battery for approx. 20%.

Instrument display:
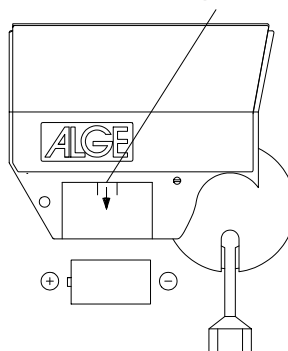
Transmitter RLS1n:
approx. 1/4 in white field: not adjusted or ray interrupted
green field: adjusted to receiver and ray not interrupted
Receiver RLS1nRX:
approx. 1/4 in white field: not adjusted or ray interrupted
green field: adjusted to transmitter and ray not interrupted

Insert of battery:

push tappet downward
in order to open the battery case

Switch-on internal battery:

The battery of transmitter or receiver is switched-on by the swichter (on/off).
Position "ON" = on, Position "OFF" = off
ATTENTION: If a battery is inside of a photocell, so please don't forget to switch-off the photocell after an event!

Adjusting the photocell RLS1nd:

+ Mount fastening angle for transmitter and receiver on a peg.
+ Screw on the photocell at the fastening angle.
+ Bring the transmitter and receiver into line and tighten the ball-shaped head (rotate yellow head clockwise).
+ Switch-on transmitter and receiver (on).
+ Adjust second switcher of receiver RLS1nRX to "adjust".
+ Connect cable (e.g. 001-10) to receiver RLS1nRX and timing device
+ Switch-on the timing device.
+ Locate the receiver with help of the justification of the transmitter.
+ Adjust transmitter, until instrument of receiver is as far as possible in the green field.
+ Tighten the ball joint of the transmitter.
+ Locate the transmitter with help of the justification of the receiver.
+ Adjust receiver, until instrument of transmitter is as far as possible in the green field.
+ Tighten the ball joint of the receiver.
+ Adjust the switcher of the receiver to "race".
+ If the infra-red ray is interrupted, the timing device will beep and shows the stopped time.

max .150 m
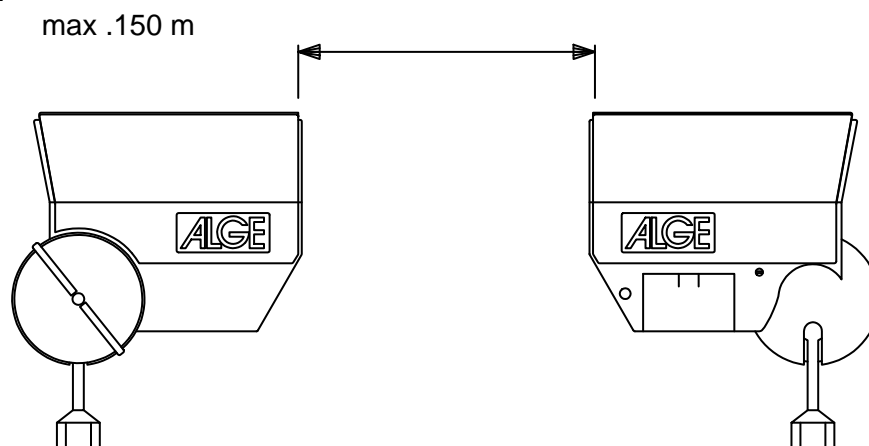
Weather protection cover:

You can excerpt the weather protection cover at the transmitter or receiver forwardly. By excerpted cover, the lense is protected against snow and rain.

If the photocell is used at a glacier, you always have to use the cover!

The direct insolation through the lense of the photocell must be avoided necessarily! Direct insolation through the lense will destroy the photocell (burning glass effect).
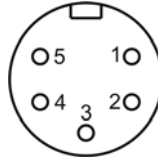
Technical data of the photocell RLS1nd:

Transmitter RLS1n:

Range: 0 to 150 meter

Power supply: 5 VDC / 25 mA max., or internal baby battery 1,2 V

Plug assignment:
- 1............................. Signal output
- 2............................. Signal output
- 3............................. 0 Volt
- 4............................. empty
- 5............................. +5V stabilized

Switcher:	on:	battery on
	off:	battery off

Dimensions: 160 x 135 x 58 mm

Weight: 0,6 kg
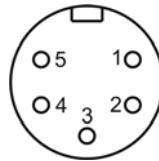
Receiver RLS1nRX:

Range: 0 to 150 meter

Power supply: 5 VDC / 25 mA max. , or internal baby battery 1,2 V

Plug assignment:
- 1............................. Signal output
- 2............................. Signal output
- 3............................. 0 Volt
- 4............................. empty
- 5............................. +5V stabilized

Output: NPN transistor, open collector, aktiv low

Reaction time: 300 µs, 2 ms adjustable

Impulse length: 20 to 1400 ms adjustable

Switcher:	on:	battery on
	off:	battery off

Race Adjust: Adjust: Transmitting part is switched-on (to adjust the photocell or to use as reflection photocell (max. 25 mA))

                     Race: Transmitting part is switched-off (during timing as receiver (max. 6 mA))

Dimensions: 160 x 135 x 58 mm

Weight: 0,6 kg

Impulse length of 20 up to 1400 ms adjustable
(screw with little screw driver)