



The photocell PR1a is a masterpiece of precision and can be used universally as a reflection photocell, as a transmitter photocell or a receiver photocell.

The photocell emits a modulated light beam in the infrared range, which is monitored by the receiver for interruptions. If the receiver detects an interrupt, it triggers an impulse. If both, the transmitter and receiver are in the same housing, it is called a reflection photocell. The infrared beam is directed from the transmitter to a reflector. The reflector functions like a mirror and reflects the infrared beam back to the receiver. Should longer distances be necessary, one can use a photocell as transmitter, and another as a receiver photocell.



Photocell PR1a

- impulse accuracy 1/10,000 s
- variety of types:
 - reflection photocell
 - through-beam photocell for long distances
- wide photocell range: over 150 m possible
- variable power supply of the photocell:
 - battery operation
 - power supply from the ALGE-TIMING timing device
 - external power supply from 4 to 18 VDC
- battery status indication with LED (green, yellow, red)
- indicates photocell status with LED (green, yellow, red)
- synchronization of two photocells (main and backup), in order to avoid interference
- setting of the delay time (approx. 20 ms to 2 s/factory setting = 20 ms)
- very long operating time



Photocells PR1aW

The PR1aW photocell has an integrated radio module (2.4 GHz), in addition to all characteristics of the PR1a. The impulse transmission can be carried out by radio and is compatible with the WTN series. 15 different radio-teams and 5 different impulse channels can be set. If required, the PR1aW can also be connected to a timing device via cable.

Additional Functions

- integrated radio module for wireless impulse-transmission
- impulse transmission also possible by cable
- up to 38 hours of operating time with battery





Photocell Sets

Reflection Photocell PR1a-R

Reflection photocell with mounting bracket BBG and 10 m cable 001-10
 Scope of delivery: 1 x PR1a, 1 x PR1a-REF, 2 x BBG, 1 x 001-10

Reflection Photocell PR1a-RT

Reflection photocell with tripod TRI128 and 30 m cable 001-30
 Scope of delivery: 1 x PR1aW, 1 x PR1a-REF, 2 x TRI128, 1 x 001-30

Through-Beam Photocell PR1a-d

Consists of separate transmitter and receiver. The photocell beam is directed from transmitter direct to receiver (distance over 100 m possible);
 Scope of delivery: 2 x PR1a, 2 x BBG, 1 x 001-10 (10 m)

Through-Beam Photocell PR1a-dT

Same as the PR1a-d through-beam photocell, but without the BBG mounting bracket and with tripods and 30 m long photocell stop cable.
 Scope of delivery: 2 x PR1a, 2 x TRI128, 1 x 001-30 (30 m)

Radio Reflection Photocell PR1aW-R (like PR1a-R, but with radio)

Scope of delivery: 1 x PR1aW, 1 x PR1a-REF, 2 x BBG

Radio Reflection Photocell PR1aW-RT (like PR1a-RT, but with radio)

Scope of delivery: 1 x PR1aW, 1 x PR1a, 2 x TRI128

Radio Through-Beam Photocell PR1aW-dT (like PR1a-dT, but with radio)

Scope of delivery: 1 x PR1aW, 1 x PR1a, 2 x TRI128



Photocell PR1a



Radio Photocell PR1aW

Technical Data

- Range: 0.5 to over 25 meters (with reflector)
 0 to over 150 meters (transmitter and receiver)
- Impulse length: 20 to 2,000 ms can be set
- Output: NPN transistor, open collector, active low
- Dimensions: approx. 118 x 87 x 44mm
- Weight: approx. 0.3 kg
- Operating time: approx. 77 hours (PR1a)
 approx. 38 hours (PR1aW)





The RLS3c Triple Photocell

The triple photocell has a range of 2 to 15 m and consists of three photocells, which are built into one housing. It is equipped with a complete transceiver unit, a reflector, 2 tri-pods and a 30 m cable.



Switchable between the following functions:

Photocell area:

Application for athletics; only if all three photocells are triggered an impulse will be generated. This prevents the triggering by arms or legs and the unofficial time of the photocell time corresponds with the "official winner's time". This photocell should be used when the time is shown on a display board.

Single photocells:

All three photocells operate independently, i.e. if one of the three photocells is triggered, an impulse is generated (e.g. for canine sports agility).



Technical Data

Range:	5 to 15 m (distances under 5 m on request)
Output:	NPN transistor, open collector, active low
Impulse length:	20 to 1400 ms can be set
Dimensions:	200 x 370 x 120 mm
Weight:	2 kg (RLS3c with reflector)



Photocell Accessory:



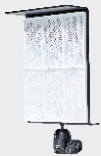
Reflector PR1a-REF
standard reflector for photocells PR1a and PR1aW



Reflector REF-L
simple reflector for photocell PR1a and PR1W



Reflector REF3
standard reflector for photocell RLS3



Reflector REF-C
reflector for photocells with long distances



Mounting Bracket BBG
chain holder for fixing the photocell or reflector to posts



Mounting Bracket B-S1
screw-on mounting bracket for mounting the photocell or the reflector



Mounting Bracket B-P40
Mounting bracket that can be mounted on poles with a diameter of up to 40 mm using screws, in order to mount the photocell or the reflector.



Tripod TRI128
professional tripod with a max. height of 1.2 m to mount the photocell or reflector



Tripod TRI-S5
simple tripod with max. height of 106,5 cm



Case KL-PR1a
for the photocell and reflector including tripods TRI128



Case KS-PR1
for photocells PR1a and PR1aW and other accessories



Case KL-RLS3
for the photocell RLS3c with tripod TRI128



Cables for Photocells
start cable with power supply: 002-01, 002-10, 002-30
stop cable with power supply: 001-01, 001-10, 001-30
Banana cable: 000-01, 000-02, 000-05, 000-10



Synchronization Cable 163-5
to synchronize two photocells PR1a and /or PR1aW



Photocell PR1a



Radio Photocell PR1aW

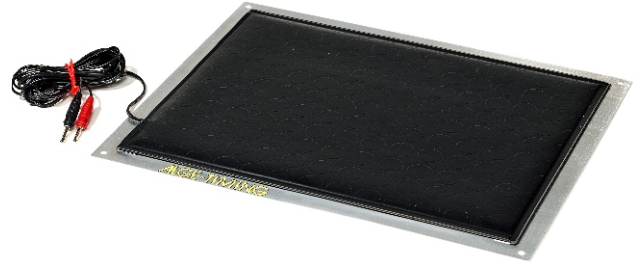




Contact Mat CM40x30 and CM60x43

The contact mats CM40x30 and CM60x43 are impulse devices for timing. It is possible to measure landing or take off on the mat (e.g. the time difference between both).

The contact mats have a normally open contact, i.e. when stepping on it an impulse is triggered. If the jump impulse should be measured, an impulse inverter or a timing device with adjustable impulse input signal (e.g. Timy3) is required. The contact mat is made from plastic and adhered to an aluminum mat. Their dimensions are 400 x 300 mm or 600 x 430 mm. The complete mat is active except for the edges of about 10 mm.



Technical Data:

Contact:	closing contact on stepping on the mat- opening contact at jump off
Connector:	banana plug (red and black) with 3 m cable
Dimensions:	CM40x30: plastic mat: 400 x 300 mm- about 7.5 mm thick aluminum plate: 440 x 340 mm- 3 mm thick CM60x43: plastic mat: 600 x 430 mm – about 7.5 mm thick aluminum plate: 640 x 470 mm – 3 mm thick
Plastic Mat:	black PVC with 1.6mm support and approx. 4 mm surface, glued to an aluminum plate (3 mm with 4 mounting holes)
Voltage:	switch contact area for max. 24 V and 150 mA
Protection class:	IP65
Temperature:	-20 °C to +50 °C



Tape Switch ATSxY

The tape switch triggers a timing impulse when someone passes over it. For example, if a cyclist passes over the tape switch, the timing device is started or stopped. The tape switch has a closing contact. It has banana plugs with connecting sleeves at the cable. It is available in different lengths:

- tape switch ATS3Y: 3 m tape switch
- tape switch ATS6Y: 6 m tape switch
- tape switch ATS7Y: 7 m tape switch
- tape switch ATS9Y: 9 m tape switch

Other tape switch lengths on request.





Manual Push Button 023-XX

The manual push button for start and stop impulses is available in two models: with 2 m cable length as 023-02 or with 10 m cable length as 023-10, each with banana plugs.



FLASH XL

The starting flash light FLASH XL is an optical start device that can additionally be used with acoustic starting devices such as a start gun. It is mainly used for running or swimming competitions. The FLASH XL is triggered by an external impulse generator, for example via a start gun or a manual push button. If another impulse occurs within five seconds, it will show 5 flashes as false start signal.

The FLASH XL has 80 LEDs (light-emitting diodes), which are installed in a plastic housing. These LEDs are extra bright so that the flash is visible even in sunlight. There are different connection sockets for the start impulse. The power is supplied by internal batteries (4 x AA) or directly from the timing device.



Start-Stop Switch 300-01

With the start-stop switch you can set whether you allow the start impulse, finish impulse, start and finish impulse, or no impulse for the timing device. The device also has a manual start and finish button.

