

Photocell PR1A

The photocell PR1a is a masterpiece of precision and power in a small package.

The transmitter of the photocell sends a modulated infrared beam. The receiver checks the infrared beam and makes an impulse for each interruption.

To use the photocell universally it is possible to switch between 3 different functions: Reflection-Photocell, Photocell Transmitter and Photocell Receiver.



Photocell PR1a:

- Impulse accuracy up to 1/10,000 seconds
- Different functions with one photocell:
 - Reflection-Photocell with Reflector
 - Separate Transmitter-Unit and Receiver-Unit for long distance use
- Long distance range
 - Reflection-Photocell about 25 m
 - Through-Beam-Photocell over 150 m (500 feet)
- Variable power supply for the photocell
 - Battery operation
 - Power supply from ALGE-timing device
 - External power supply from 4 to 18 VDC
- Battery indication with LED (green, yellow, red)
- Indication of photocell adjustment with LED (green, yellow, red)
- Synchronisation of two photocells (main and backup) to prevent interference
- Adjustment of delay time (20 ms to 2 seconds (factory adjustment = 20 ms)



Photocell PR1A with extendable cover to protect the lenses from rain or snow!

ALGE
TIMING

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Types of Photocells:

Reflection-Photocell PR1a-R:

If one photocell is used with a reflector we call it a Reflection-Photocell. The function of the reflector is like a mirror, which reflex the beam sent from the transmitter back to the receiver.

Photocell range: about 25 m (80 ft)

Photocell set: 1 x PR1a, 1 x PR1a-Ref, 2 x BBG,
1 x 001-10 (10 m / 33 ft)

Reflection-Photocell PR1a-RT:

As PR1a-R supplied with tripod (instead of fastening bracket BBG) and 30 m (100 ft) photocell cable.

Photocell range: about 25 m (80 ft)

Photocell set: 1 x PR1a, 1 x PR1a-Ref, 2 x TRI128,
1 x 001-30 (30 m / 100 ft)



Reflection-Photocell

Through-Beam-Photocell PR1a-d:

The PR1a can be used either as TX or RX unit. It sends an infrared beam from one PR1a set as transmitter to another PR1a set as receiver.

Photocell range: over 150 m (500 ft)

Photocell set: 2 x PR1a, 2 x BBG, 1 x 001-10 (10 m / 33 ft)

Through-Beam-Photocell PR1a-dT:

As PR1a-d supplied with tripod (instead of fastening bracket BBG) and 30 m (100 ft) photocell cable.

Photocell range: over 150 m (500 ft)

Photocell set: 2 x PR1a, 2 x TRI128, 1 x 001-30 (30 m/100 ft)



Through-Beam-Photocell

Parts of the Photocell:

Photocell PR1A



Reflector PR1a-Ref



Fastening Bracket BBG



Tripod TRI128



Cable 001-10 or 001-30



Technical Data:

Range with Reflector:	0.5 to 25 Meter
Range with Transmitter and Receiver:	0 to over 100 Meter
Impulse Output:	NPN transistor, open collector, active low
Reaction Time:	300 μ s, 1 ms fix adjusted
Impulse Length:	20 to 2000 ms (adjustable delay time)
Measurements PR1A (without swivel head):	about 118 x 87 x 44 mm
Weight PR1A:	about 0.3 kg
Weight PR1a-Ref:	about 0.2 kg
Switches:	On/Off switch for battery Three position switch for modes (Norm, TX, R)
Power Supply:	from ALGE timer: 5 VDC stabilized external power supply: 4 - 18 VDC internal Battery: 2 x AA-Battery
Power Consumption:	from Battery with 2,5 VDC: 20 - 46 mA from timing device 5 V _{stab} : 9 - 20 mA



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