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ARGUS light-sensitive time switch

Operating instructions

544890

For your safety

⚠⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Safety standards, local wiring rules and regulations

Failure to follow these instructions will result in death or serious injury.

Notice

HAZARD OF EQUIPMENT DAMAGE

- Ensure that the device is disconnected from its circuit during the insulation resistance test.

Failure to follow these instructions can damage the device.

Light-sensitive time switch introduction

The ARGUS light-sensitive time switch combines the functions of a light-sensitive switch and a timer in a single device. A special function in the light-sensitive time switch automatically calculates the time of day on the basis of the ambient brightness (it is not necessary to manually set the time).

The light-sensitive time switch also has a switching delay function which means that the load is only switched if the twilight threshold is exceeded or not reached for a longer period of time. The light-sensitive time switch therefore only reacts at dusk or dawn and not e.g. during the day due to temporary cloud cover or at night due to the light cast from a headlamp.

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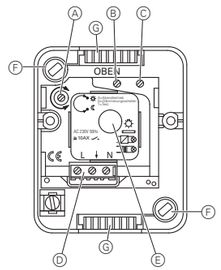
You can connect it to loads such as lamps or 230 V halogen lamps. There are three different ways of switching these on or off:

- **Twilight function**
  The device switches on when the twilight threshold set is reached in the evening, and switches off when the threshold is crossed again in the morning..
- **Automatic function**
  The device switches on in the evening when the twilight threshold set is reached in the evening, and switches off again at the time set. In the morning the device switches on at a time set and then switches off again when the twilight threshold is reached.
- **Semi-automatic function**
  The device switches on in the evening when the twilight threshold set is reached in the evening, and switches off again at the time set.

Connections, displays and operating elements



Ⓐ Setting screw for twilight threshold
Ⓑ Setting screw for switch-off-time (evening)
Ⓒ Setting screw for switch-on-time (morning)
Ⓓ Connecting terminals
Ⓔ Light sensor
Ⓕ Openings for fixing
Ⓖ Lead-in guides for connecting cable

The dark grey rotary disk on the front of the housing has no function on this device. The light sensor must be exposed in the opening of the rotary disk.

Selecting the installation site

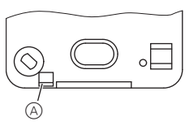
– If possible, install the device on the north- or eastfacing wall of the building.
– If possible, install the device under roof overhangs or similar covering.
– If possible, the connection cable should be inserted into the device from below. If the connecting cable enters into the device from above, particularly good insulation must be ensured.
– Install the load to be switched (lighting) in such a way that the light from it does not fall on the light sensor. Otherwise, the sensor will not be able to calculate the ambient brightness correctly (optical feedback).

Light-sensitive time switch installation

① Open the housing by unscrewing the two screws at the front. Pull out the light-sensitive time switch.

The condensation water opening on the underside of the housing must be opened. Exception: If operated in rooms subject to a large amount of dust, it must remain closed.

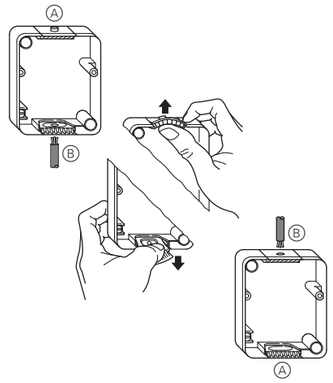
② Push open the condensation water opening Ⓐ (view from rear) from the inside to the outside and break out the wall.



③ Fasten the housing to the wall through the openings using suitable fixing material (e.g. dowels and screws). The "TOP" marking should be at the top.

If you want to lead the cable into the housing from below rather than above:

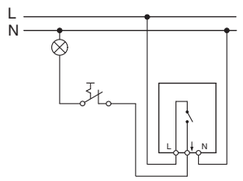
④ Swap over the lead-in guides (Ⓐ/Ⓑ).



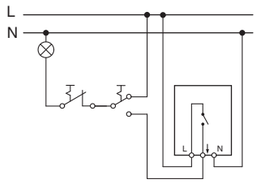
When switching inductive loads such as transformers, relays, contactors or fluorescent lamps, spikes occur which could lead to the load being switched on again ("maintained light effect"). Switch a capacitor parallel to the inductive load in order to reduce these spikes.

⑤ Wiring the light-sensitive time switch for the desired application:

– Light-sensitive time switch with On/Off switch (optional)



– Light-sensitive time switch with On/Off switch (optional) and two-way switch for toggling between manual and automatic operation.



⑥ Insert the light-sensitive time switch into the housing and screw the housing together.

Setting the light-sensitve time switch

Setting the twilight threshold

To set the twilight threshold, the device housing must be open. Make sure that the light sensor is not covered and that no light other than the ambient brightness falls on the lights sensor.

① Turn the setting screw for switch-on time to position "T".

On reaching the threshold value required:

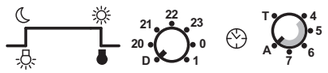
② Slowly turn the setting screw for the twilight threshold until the light switches on. Leave the setting screw at this position.

③ Turn the setting screw for switch-on time to position "A".

Setting the twilight function

① Turn the setting screw for switch-off time to position "D".

② Turn the setting screw for switch-on time to position "A".

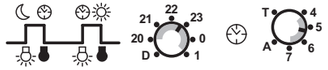


Setting the automatic function

① Read off the local time deviation from the table (see next section) and calculate the switch-on or switch-off time.

② Turn the setting screw for switch-off time to the newly calculated switch-off time, e. g. 21:30.

③ Turn the setting screw for switch-on time to the newly calculated switch-off time, e. g. 05:15.

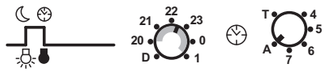


Setting the semi-automatic function

① Read off the local time deviation from the table (see next section) and calculate the switch-on time.

② Turn the setting screw for switch-off time to the newly calculated switch-off time, e. g. 21:30.

③ Turn the setting screw for switch-on time to position "A".



Calculating the local time deviation

The table which follows tells you by how many minutes your local time deviates from standard time (Central European Time CET). Use this value to correct your required switch-on or switch-off time.

Example:
The light-sensitive time switch is to switch off at 21:00. If you live in Warsaw, the setting switch should be set to 21:24; if you live in Aachen, you must set it to 20:24, and so on.

City	Degree of longitude (approx.)	Deviation
Warsaw	21° east	+24 min.
Budapest	19° east	+16 min.
Vienna	16° 30' east	+6 min.
Goerlitz	15° east	-0 min.
Berlin	13° 30' east	-6 min.
Munich	11° 30' east	-14 min.
Schwerin	11° 30' east	-14 min.
Hamburg	10° east	-20 min.
Frankfurt/Main	7° 45' east	-29 min.
Aachen	6° east	-36 min.
Amsterdam	5° east	-40 min.
Brussels	4° 20' east	-43 min.
Paris	2° 20' east	-50 min.
Madrid	3° 45' west	-74 min.

When operating the light-sensitive time switch in time zones other than CET, you must calculate the deviation of your local time from the time in the relevant zone yourself.

Rule-of-thumb: 1 degree of longitude corresponds to a deviation of 4 minutes.

The integrated clock has reserve power to see it through a power failure of 1–2 hrs. After a longer power failure, the clock sets itself roughly in the first instance and does so more precisely after a few days. It is possible that the lighting will remain switched on for the whole night following a longer power failure.

Since the device calculates the time on the basis of the ambient brightness, the switch-on and switch-off times which can be set on the scales are relative to the local time, not the standard time of the zone (see the table "Local time deviation").

The device **does not** change from winter to summer time (or vice versa). For this reason, you should correct the setting switches for switch-on and switch-off time by + 1 hour during **Summer time.**

Technical data

Nominal voltage:	AC 230 V, 50 Hz
Max. switching current:	10 A, AC 230 V, cosφ = 0.6
Nominal power	
Incandescent lamps:	AC 230 V, max. 2300 W
Halogen lamps:	AC 230 V, max. 2000 W
LV halogen lamps (electr./wound transf.)	AC 230 V, max. 1000 VA
LED loads:	max. 200 W
Capacitive load:	max 140 µF
Fuse protection:	16 A circuit breaker
Connecting terminals:	for 2.5 mm² rigid conductors
External diameter of a cable:	max. 14 mm
Adjustment range/ switch threshold:	2 - 300 Lux, adjustable
Relay:	µ contact
Switching delay:	Switching on/off approx. 60 s in each case
Tolerance of the integrated clock:	± 20 min
Area of application:	between latitude 58° south and 58° north
Type of protection:	IP 54
Dimensions:	approx. 97x80x47 mm (HxWxD)

Dispose of the device separately from household waste at an official collection point. Professional recycling protects people and the environment against potential negative effects.

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Schneider Electric

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