

Lumistar Timer for Ex hazardous areas, external



II 2G Ex d e mb IIC T6 Gb
II 2D Ex tb IIIC T80°C Db

Electronic timer as a stand-alone unit, particularly suitable for use with Lumistar luminaires and other electrical equipment operated in potentially explosive environments.

• This data sheet also serves as installation and operating instructions

• **Applications:**

The timer enables consumer loads, such as e. g. the illumination system for process sequences, to be operated in a time-dependent manner. The timer is wired into the power line to the consumer load, consequently allowing the power to be switched according to the time setting.

Pressing the button of the combined push-button/selector switch activates the consumer load for the preset time which has previously been programmed to meet the customer's specific needs. Continuous ON mode can also be selected via the combined push-button/selector switch. Alternatively, the device can be programmed to function as a flashing relay.

• **General operating conditions:**

- Approved for use in potentially explosive environments, Zones 1 and 2 as well as Zones 21 and 22
- Ambient temperatures: -20°C and +40°C

• **Function:**

1. As a timer

The combined push-button/selector switch on the front of the timer housing has a zero setting (marked 'off'), a momentary-contact switch (marked 'time') and a latched position for continuous operation (marked 'on').

Turning the switch anti-clockwise starts the timer and turns on the power to the consumer load. Once the preset time has elapsed, the consumer is automatically switched off. By actuating the push-button again before the programmed time has elapsed, the timer will start a full cycle again.

Turning the operating switch (clockwise) to the notched position will switch on the consumer load until the operating switch is returned to the zero position. The device will then remain in operation for the total preset time, after which it will finally switch off.

2. As a flashing relay

If the device is intended as a flashing light relay – the relevant programming and predefinition is carried out by the manufacturer – the flashing function is switched on once the supply voltage is applied. The combined push-button/selector switch is not in operation in this mode and is set to '0'. The flashing sequence stops once the power supply is interrupted.

• **Setting the time or flashing sequence:**

The time sequence is variable between 10 sec. and 60 min.

In flashing mode, the 'on' and 'off' phases can be independently set at between 1 sec. and 20 sec.

Example: 'on' for 5 sec. – 'off' for 10 sec., etc.

The data is factory-set by the manufacturer acc. to the customer's specifications and indicated on a label affixed to the device.

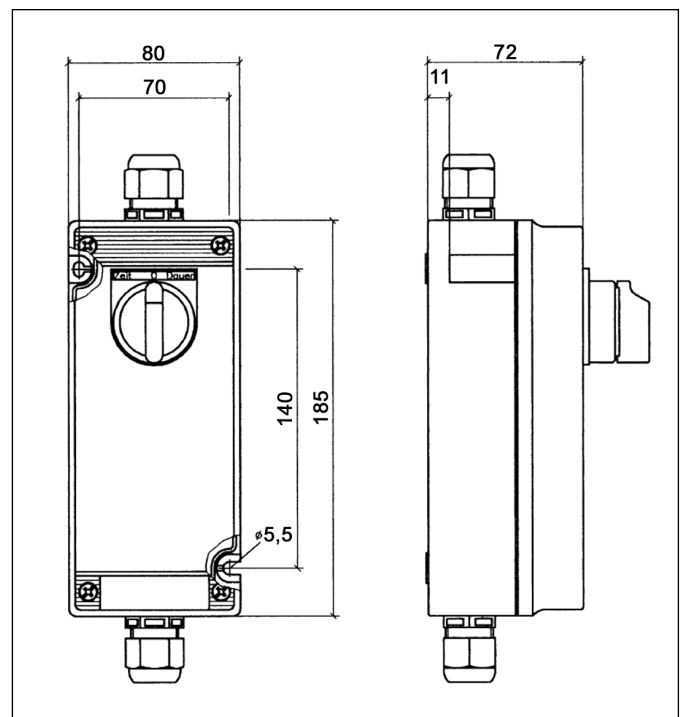
Apart from the designated function of the unit as a 'Timer' or as a 'Flasher', the time interval in the case of the timer and the flashing sequence for the flasher function are also shown.



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Lumistar timer for Ex hazardous areas



Dimensions for Lumistar timer

• **Please note:**

Any intended reprogramming or modification to the function or the time cycles must be carried out outside the potentially explosive area and only by appropriately trained personnel of the manufacturer (F.H. Papenmeier GmbH & Co. KG) who shall use tools and equipment specially designed for this purpose.

• **Variants of the Lumistar timer:**

Item	Nominal voltage AC/DC	Part no.
1	230 V - 240 V	8670.046.00
2	115 V - 120 V	8670.047.00
3	24 V	8670.048.00

• **Order data:**

When ordering, please state the required time setting or flashing frequency, as the case may be!

Example of order details:

Lumistar timer for Ex areas, 24 V,
Part no.: 8670.048.00, 6 min.

or

Lumistar timer for Ex areas, 115/120 V,
Part no.: 8670.047.00, flashing frequency: 10/15 sec.

• **Technical data:**

EC Type-Examination Certificate	ZELM 06 ATEX 0301 and 3rd Supplement Ⓜ II 2G Ex d e mb IIC T6 Gb / Ⓜ II 2D Ex tb IIIC T80°C Db
Explosion group	IIC and IIIC
Temperature classification	T6 equivalent to T80°C
Type of protection	IP66 to EN 60529/DIN VDE 0470 Part 1
Operating voltage AC/DC	Alternatively: 230-240 V; 115-120 V; 24 V
Ambient temperature	$-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
Termination	Max. 2.5 mm ² , finely stranded wire
Output contacts	1 make contact element
Nominal current	Max. 12 A
Switching capacity AC	Max. 3000 VA
Switching current DC	Alternatively: max 230 V, 0.3 A / 110 V, 0.45 A / 24 V, 12 A
Housing	Polyester resin (GF)

Installation Instructions

• **Important precautions:**

The timer should only be installed, connected and serviced in explosion-hazardous areas by personnel who have been specifically qualified and authorised to do such work. The requirements of EC Type-Examination Certificate ZELM 06 ATEX 0301, incl. the 3rd Supplement thereto, must be observed.

The type approval for this equipment will become void if it is improperly used.

• **Electrical termination:**

The timer is to be wired into the supply line to the consumer load. Cables with a cross-section of 6-13 mm should be used for the M20 x 1.5 cable entry gland.

The applicable set-up regulations acc. to DIN EN 60079-14 must be observed.

To connect the timer, the housing lid is first removed by unscrewing the fastening screws. A wiring diagram is provided inside the lid. The operating voltage is connected to terminals 1 and 3. The switching contact is between terminals 5 and 6. The load cores are connected to terminals 2 and 5. If a potential-free make contact element is used, the works-fitted wire jumper between terminals 4 and 6 should be removed.

Once the equipment has been installed, the housing lid is screwed on again, making sure that the seal is properly fitted.

• **Fuse protection:**

A 16 A back-up fuse should be provided in the power line.

• **Norms:**

EN 60079-0:2012 + A11:2013
EN 60079-1:2007
EN 60079-7:2007
EN 60079-31:2009
EN 60079-18:2009