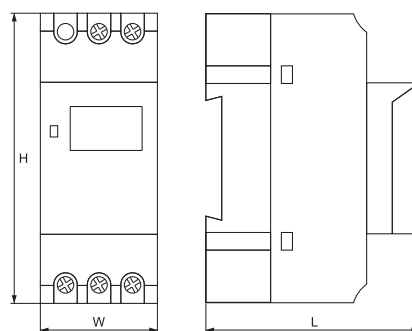## Programmable digital one-channel timer TE 15A

The timer is manufactured under the CMOS technology with a quartz minicontroller which makes it reliable for operation. The timer is adjusted for DIN-rail mounting. It can memorize up to eight ON/OFF programs (ON/OFF cycles). Each program setting is done through the push buttons. Programming starts with selection of the days of the week (you can choose among a whole week cycle, work days cycle, weekend cycle, or a specific day of the week); then the cycle start time and end time are set. If you have selected work days cycle, then the program will start and stop at the set times each work day of the week. This is one ON/OFF program. Where necessary, other programs can be memorized up to the limit of eight possible programs. If you continue setting new programs the first memorized program will be deleted. The minimal interval for cycle programming is 1 minute.

Technical data:
- Display: LCD
- Power supply voltage: 230V; 50Hz
- Operations: 8 switching ON/OFF
- Time deviation: <2s (at 25°C)
- Battery for programme storing: up to 15 days
- Power consumption: <5VA
- Switched on indicator
- Electrical wear resistance: 10^5 cycles
- Mechanical wear resistance: 10^7 cycles
- Operating temperature: -10°C - +40C
- Humidity: 35 – 85%RH
- Number of contacts: 1NO + 1NC
- Commutating capacity:
  - active load: up to 6A
  - inductive load: up to 2.5
- Weight: 120g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE 15 A	1 / 100	**50036**

Dimensions (mm)		
H	W	L
85	36	64

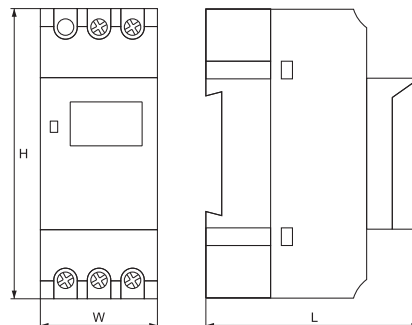## Programmable digital one-channel timer TE 15B

The timer is manufactured under the CMOS technology with a quartz minicontroller which makes it reliable for operation. The timer is adjusted for DIN-rail mounting. It can memorize up to six ON/OFF programs (ON/OFF cycles). Each program setting is done through the push buttons. Programming starts with selection of the days of the week (you can choose among a whole week cycle, work days cycle, weekend cycle, or a specific day of the week); then the cycle start time and end time are set. If you have selected work days cycle, then the program will start and stop at the set times each work day of the week. This is one ON/OFF program. Where necessary, other programs can be memorized up to the limit of eight possible programs. If you continue setting new programs the first memorized program will be deleted. The minimal interval for cycle programming is 1 minute. There is possibility for automatic correction of the time according to the seasonal sun variations.

Technical data:
- Display: LCD
- Automatic adjustment of the current time (time correction winter/summer)
- Power supply voltage: 230V; 50Hz
- Operations: 6 switching ON/OFF
- Time deviation: <2s (at 25°C)
- Battery for programme storing: up to 15 days
- Power consumption: <5VA
- Switched on indicator
- Electrical wear resistance: 10^5 cycles
- Mechanical wear resistance: 10^7 cycles
- Operating temperature: -10 - +40°C
- Humidity: 35 – 85%RH
- Number of contacts: 1NO + 1NC
- Commutating capacity:
  - active load: up to 6A
  - inductive load: up to 2.5
- Weight: 120g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE 15 B	1 / 100	**50101**

Dimensions (mm)		
H	W	L
85	36	64

EL'MARK®

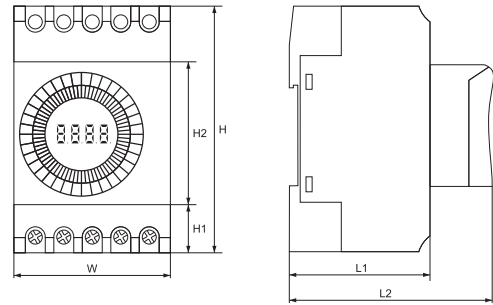## Programmable digital one-channel timer TE 20

The timer is manufactured under the CMOS technology with a quartz minicontroller which makes it reliable for operation. The timer is adjusted for DIN-rail mounting. It is possible to adjust forty-eight ON/OFF cycles. Each program setting is done through selection of the cycle start and end time with the push buttons. When a program is on, the time cycle is indicated as a dimmed out section on the dial. For example, if you start a 2-hour program the 2-hour portion between On and Off times on the dial becomes dark. The minimal interval for cycle programming is 15 minutes. The battery allows programme storing at lack of power supply.

Technical data:
- Power supply voltage: 230V; 50Hz
- Time deviation: <2s (at 25°C)
- Battery for programme storing and operation: up to 150 hours
- Power consumption: <5VA
- Switched on indicator
- Electrical wear resistance: 10^5 cycles
- Mechanical wear resistance: 10^7 cycles
- Operating temperature: -10 - +40°C
- Humidity: 35 – 85%RH
- Number of contacts: 1NO + 1NC
- Li-Ion battery: 150h
- Commutating capacity:
  - active load: up to 16A
- Weight: 120g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE 20	1 / 92	**50100**

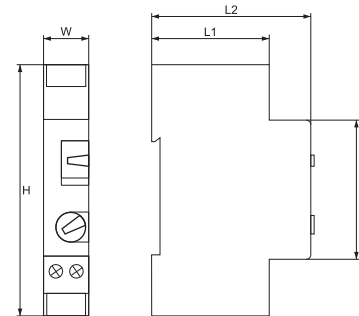| Dimensions (mm)					
H	H1	H2	W	L1	L2
85	20	45	54.5	34	66

Tariff switching clock (timer) TE 18

The timer is adjusted for DIN-rail mounting. It is used for switching on tariff lighting in housing buildings and switching off after the adjusted time. Easy to adjust time intervals, mounting and conducting. Reliable to use.

Technical data:
- Power supply voltage: 230V; 50Hz
- Adjustment range: 0.5 to 20 min
- Power consumption: <2.5VA
- Operating temperature: -5...+40°C
- Humidity: 45 – 95%RH
- Number of contacts: 1NO
- Commutating capacity:
  - active load: up to 16A
  - inductive load: up to 10 A
- Weight: 75g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE 18	1 / 200	**35005**

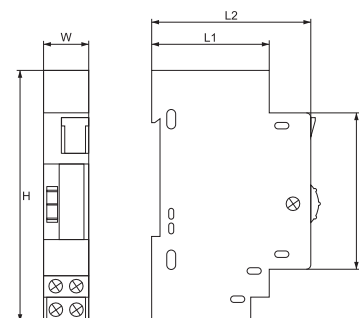| Dimensions (mm)				
H	W	L1	L2	D
82	18	40	65	45

ELMARK staircase switch TE E8

The staircase time switch is a single module din rail mounting device which is used in conjunction with standard press switches.It has an adjustable time setting of 1 to 7 minutes to switch off from initiation The switch can be used with any number of press switches which makes it ideal for staircases in blocks of flats.

Technical data:
- Power supply voltage: 230V; 50Hz
- Adjustment range: 1 to 7 min
- Min.setting interval - 0.5 min
- Power consumption: <2.5VA
- Operating temperature: -5..+40°C
- Humidity: 45 – 85%RH
- Number of contacts: 1NO.
- Commutating capacity :
  - active load: up to 16A
  - inductive load: up to 10 A
- Weight: 75g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE E8	1/200	**35006**

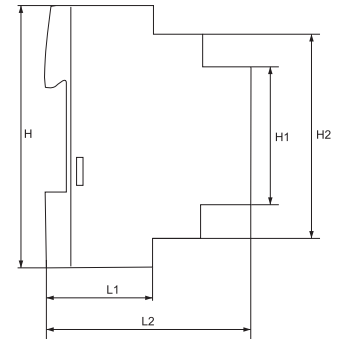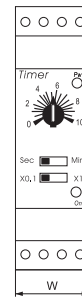| Dimensions (mm)				
H	W	L1	L2	D
82	18	40	65	45

Time relay "star/delta" TE 19

The time relay is manufactured under the most modern methods of qualitative and reliable materials. The timer is adjusted for DIN-rail mounting. It is used to provide reliable and safe time hold at "star/delta" starters and it is used for setting fixed time intervals. Programming is done through selection of the time unit (seconds or minutes) and rate (x 0.1 or x1) by the slide switches, and then selection of a value from the timer knob (from 0 to 10). Whenever timer circuit receives a signal, it executes the set cycle and then stops until a new signal is available. It gives possibility for time adjustment for motor unwinding in star up to 600s and time change to delta according to the consumer's need.

Technical data:
- Power supply voltage: 230V; 50Hz
- Adjustment range for operation in star: 1 to 600 seconds
- Repetition accuracy: ±5% from the whole scale
- Adjustment accuracy: ±5% from the whole scale
- Zeroing time: <0.5s
- Power consumption: <5VA
- Electrical wear resistance: 100 000 cycles
- Mechanical wear resistance: 1 000 000 cycles
- Operating temperature: -10-+55°C
- Humidity: 45 – 85%RH
- Commutating capacity: up to 5A
- Indication:
  - at operation in "star": red indication
  - at operation in "delta": green indication
- Weight: 150g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE19	1 / 200	**50102**

Dimensions (mm)					
H	W	L1	L2	H1	H2
85	24	34	66	45	60

Timer TE8A – 1a, TE8A – 2a

The timer is manufactured under the most modern technology CMOS with a quartz minicontroller which makes it precise, qualitative and reliable. It has a built in battery which allows operation of the timers without charging up to 150 hours. The timer is adjusted for DIN-rail mounting. Timer programming is done through selection of the operational day(s) of the week, followed by selection of the start time and end time. You may choose out of ten modes (one for each day of the week, one for the work days, one for the weekends and one for the whole week). When setting the time, you should start first with the hours and then continue with the minutes.
TE8A - 1a - Up to eight programs can be memorized. The on/off time resolution is 1 minute.
TE8A - 2a - It has two operating channels, each of which can adjust four programmes for a day or a week with minimal interval of 1 minute for switching on and off.
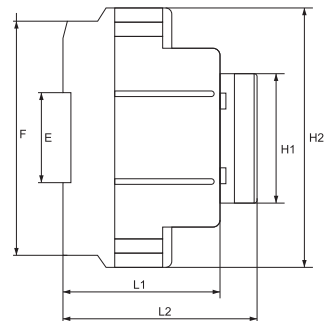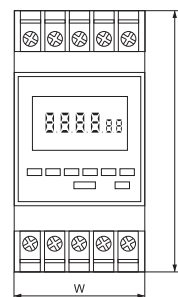Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

Technical data:
- Power supply voltage: 230V; 50Hz
- Power consumption: <5VA
- Electrical wear resistance: 10^7 cycles
- Mechanical wear resistance: 10^5 cycles
- Operating temperature: -10ºC - +55ºC
- Temperature of storage: up to 70C
- Humidity: 45 – 85%RH
- Commutating capacity: up to 16A
- Two outlet relays
- Li-Ion battery: 150h
- Weight: 150g

Mounting:
- DIN-rail

Type	Packing/Box (pcs)	Catalogue number
TE8A - 1a	1 / 75	**50113**
TE8A - 2a	1 / 75	**50114**

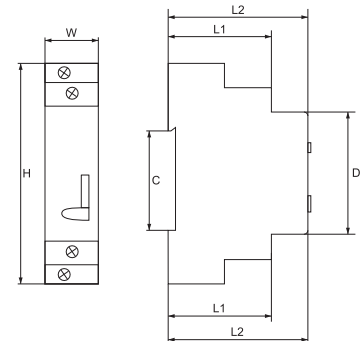| Dimensions (mm)			
H	H1	H2	W
100	50	68	50
E	L1	L2	F
36	60	74	90

Impulse relay

Impulse relays allow circuit remote control. They can be operated manually, remotely, from several control points, or by impulses. Impulse relays are most frequently used for the control of lighting circuits in various public places with multiple control points.

Technical data:
- Control voltage: 230V
- Rated current of the power circuit: 16A
- Electrical endurance: 200000 cycles
- Maximum switching frequency: 5 operations/minute
- Impulse duration: 50ms

Connection:
- tunnel terminals

Type	Packing/Box (pcs)	Catalogue number
EP510	8 / 160	**50300**

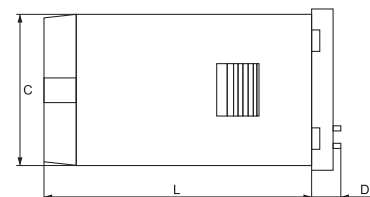| Dimensions (mm)					
H	W	C	D	L1	L2
85	24	36	45	34	66

Timer TE6B

The timer is manufactured under the most modern technology CMOS with a quartz minicontroller which makes it precise, qualitative and reliable. The timer is modulated to be mounted on the front panel of boards. The direction of operation is adjusted – direct or reverse. There is possibility to adjust the time range from 0.01 second to 99 hours 59 minutes, possibility for correction of the set values during operation. Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

Technical data:
- Power supply voltage: 230V; 50Hz
- Possibility for choice of operating range:
  - from 0.01 second to 99.99 seconds
  - from 1 second to 99.59 minutes
  - from 1 minute to 99.59 hours
- Error: <0.01% ±0.05s
- Minimal duration of the input pulse: 20ms
- Power consumption: <5VA
- Electrical wear resistance: 10^7 cycles
- Mechanical wear resistance: 10^5 cycles
- Operating temperature: -10-+55℃
- Temperature of storage: up to 70℃
- Humidity: 45 – 85%RH
- Commutating capacity at active load: 3A
- Weight: 300g

Mounting:
- on the front panel of the board

Type	Packing/Box (pcs)	Catalogue number
TE6B	1 / 100	**50104**

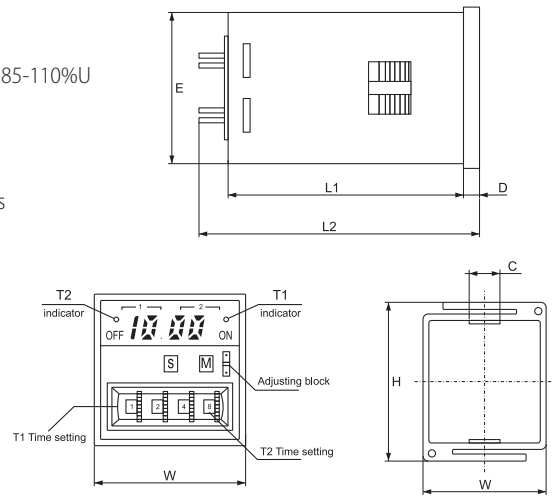| Dimensions (mm)		
D	W	L
8.5	45	80

Timer TE48S-S

The timer is manufactured under the most modern technology CMOS with a quartz minicontroller which makes it precise, qualitative and reliable. The timer is modulated to be mounted on the front panel of boards. The direction of operation is adjusted – direct or reverse. It represents two separate operating channels, each of which can operate independently with time range adjustment from 1 second to 99 minutes. Possibility for correction of the set values during operation. First, select the time unit (seconds or minutes) and then set the time. Depending on the timer coupling, it can be used as a cyclic timer relay, i.e. it initially counts the first time set, then counts the second time set, then starts counting over the first time again, etc. until a stop signal is received. In another mode, the timer can count the set time and stop until a new signal is received to count the next cycle. Indication on LCD display with high resolution and showing the time in hours, minutes and seconds.

Type	Packing/Box (pcs)	Catalogue number
TE48S-S	84	**50105**

Dimensions (mm)			
D	E	L1	L2
5	44.8	74	95
C	H	W	
15	58	48	

Technical data:
- Power supply voltage: 230V; 50Hz
- Admissible variation of the input voltage: 85-110%U
- Possibility for choice of operating range:
  - from 1 to 99 seconds
  - from 1 minute to 99 minutes
- Error: <0.01% ±0.05s
- Minimal duration of the input pulse: 20ms
- Power consumption: <5VA
- Electrical wear resistance: 10^7 cycles
- Mechanical wear resistance: 10^5 cycles
- Operating temperature: -10-+55°C
- Temperature of storage: up to 70°C
- Humidity: 45 – 85%RH
- Commutating capacity at load: 3A
- Weight: 300g

Mounting:
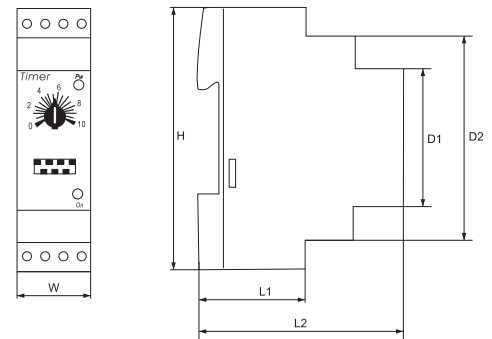- on the front panel of the board

Timer TE 19M

Timer is developed using modern technologies from quality and reliable materials and is adapted for mounting on DIN rail. It is used for providing time intervals in eight time programs, which are assigned by combinations of the keys. There is an option for it to operate in time ranges (assigned by the keys K4, K5,K6): seconds, minutes or hours depending on the necessity of the user. Power contact up to 3A.

Technical characteristics:
- Input voltage: 230V; 50Hz
- Range of setting: from 0.6 sec to 100 hours
- Accuracy of setting: ± 5% from the whole scale
- Time for nullifying: <0.5 seconds
- Consumed capacity: < 5VA
- Electrical endurance (number of cycles): 100 000 cycles
- Mechanical endurance (number of cycles): 1 000 000 cycles
- Operation temperature: -10 - +55°C
- Humidity: 45 - 85%RH
- Computing option: up to 5A
- Indication:
  - on power supply: red indication
  - on operational output relay: green indication
- Weight: 150 gr.
- Time functions: according to the programming guide

Mounting method:
- DIN rail

Type	Packing/Box (pcs)	Catalogue number
TE 19M	1 / 200	**50102M**

Dimensions (mm)					
H	W	H1	H2	L1	L2
85	24	45	60	34	66