# TIMERS, RELAYS AND DISPLAYING DEVICES

## **Digital counters**





#### Documents corresponding to the product:

Standard EN 61010-1

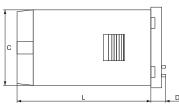
Туре	Packing/Box (pcs)	Catalogue number	
CE2J	1 / 45	50111	

Dimensions (mm)				
Н	W	С	D	L
68	68	65	8.5	90

## **Universal digital counter CE2J**

The device is manufactured under the modern technology CMOS which allows high speed of counting and high counting reliability. It has a built in battery which allows data storing for more than 10 years. It is supplied with a digital display with black lighting digits,

providing excellent visibility at different lighting. The counter is to be mounted on the front panel of the boards. It is used for impulse sequence counting with accumulation or deduction. There is possibility for relay outlet operation at reaching beforehand set value, and also a possibility for changing the position of the decimal point.



Protection indicator Outlet channel indicator

Set value

888888

888888 📰



- Power supply voltage: 230V; 50Hz
- Counting range: 0 99999
- Counting speed: 30/3k cps
- Zeroing: outside impulse
- Battery for programme storing: up to 10 years
- Power consumption: <5VA</li>
- Operating temperature: -10-+40°C
- Humidity: 35 85%RH
- Commutating capacity: relay outlet with active load: up to 3Å
- Weight: 250g
- Mounting: • on the front panel
- opening with dimensions: 45x45
- Setting buttons Return button System return button Opera buttor rational Display button w

Power supply indicator

Current valu

Set value 1 and 2



Documents corresponding to the

Packing/Box

(pcs)

1/45

Dimensions (mm)

C

65

D

6

Catalogue

number

50120

L

90

product:

Type

CE10J

Н

68

Standard EN 61010-1

W

68

Combined digital counter/timer CE10J

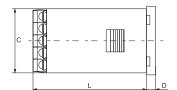
The device is for front mounting in the board. It can be used as a counter or timer choosing a definite combination from keys. It is manufactured under the modern technology CMOS which allows high speed of counting, precision at operation as a timer and high reliability. It has a built in battery which allows data storing for more than 10 years. It is supplied with a digital display providing excellent visibility at different lighting. It is used for impulse sequence counting with accumulation or deduction. There is possibility for relay outlet operation at reaching beforehand set value, and also a possibility for changing the position of the decimal point.

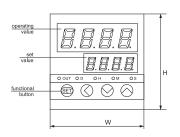
#### **Technical data:**

- Display: LCD
- Power supply voltage: 230V; 50Hz
- Counting range: 0 999
- Timer range: 0.01 99h99min
- Counting speed: 30/500 cps •
- Zeroing: outside impulse
- Battery for programme storing: up to 10 years
- . Power consumption: <3VA
- Mechanical wear resistance: 107 cycles
- Operating temperature: -5-+40°C
- Humidity: 35 85%RH
- Commutating capacity: relay outlet with active load: up to 3A
- Weight: 120g

#### Mounting:

- on the front panel
- opening with dimensions: 45x45





# ELMARK

# TIMERS, RELAYS AND DISPLAYING DEVICES

## **Digital counters**



#### **Documents corresponding to** the product: EN 61010-1

Туре	Packing/Box (pcs)	Catalogue number	
CE15J	1 / 100	50112	



#### **Documents corresponding to** the product: EN 61010-1

Туре	Packing/Box (pcs)	Catalogue number	
CE15L	1 / 100	50115	



#### **Documents corresponding to** the product: EN 61010-1

Туре	Packing/Box (pcs)	Catalogue number	
EK - RSTB	1 / 200	50103	

	Dimensions (mm)				
Н	W	D1	D2	L1	L2
85	24	45	60	34	66

## **Total digital counter CE15J**

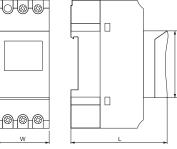
The device is to be mounted on DIN-rail. It is used as an impulse counter with no outside power supply. For that purpose there is a Li battery built in the device which provides data storing and operation of the device for 5 years. It has eight digital lighting display providing excellent visibility at different lighting. It is used for impulse sequence counting with accumulation.

## Technical data:

- Display: LCD
- Power supply voltage: built in battery •
- Inlet signal: 100-230V AC/DC
- Counting accuracy: <0.002%</li>
- Data storing battery: up to 5 years
- Operating temperature: -5-+40°C
- Humidity: 35 85%RH Dimensions (mm)

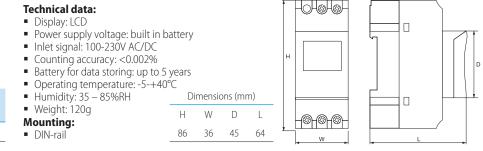
## Weight: 120g

Н W D Mounting: DIN-rail 86 36 45 64



## **Total digital counter CE15L**

The device is to be mounted on DIN-rail. It is used as a time impulse counter with no outside power supply. For that purpose there is a Li battery built in the device which provides data storing and operation of the device for 5 years. It has eight digital lighting display providing excellent visibility at different lighting. It is used for time impulse sequence counting with accumulation. It displays the operated time.



## **Phase sequence indicator EK - RSTB**

The device is to be mounted on DIN-rail. It is used for control and indication of the presence, sequence and quality of the phases. The device indicates the following fault:

- lack of one or several phases;
- change in the sequence of the phases;
- lowering of the power supplying voltage: under 10%; •
- increasing of the power supplying voltage: over 10%;
- phase asymmetry of the power supplying voltage:  $\pm 10\%$

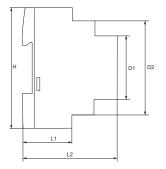
In the presence of one of the conditions above a relay starts operating in the device which breaks the controllina circuit.

The time between fault indication and outlet relay switching on can be adjusted in order to prevent unwilling stops at very short breaks. When the voltage is back to normal limits, the device receives energy (indication lights) according to the hysteresic values. At phase sequence fault the device operates immediately.

#### **Technical data:**

- Power supply voltage: 400V; 50Hz
- Possibility for operation range adjustment: 0.1 10 seconds
- Possibility for working range adjustment: from 300 to 480 V
- Electrical wear resistance: 1 000 000 cycles
- Mechanical wear resistance: 10 000 000 cycles Indication:
  - green LED indication for a change in the condition red LED - failure
- Operating temperature: -5-+40°C
- Humidity: 35 85%RH
- Weight: 120g
- Mounting:
- DIN-rail





TIMERS, RELAYS AND DISPLAYING DEVICES

92