

**CZ0954x0 / CZ0954x2**

Elapsed-time counter

**1. General information**

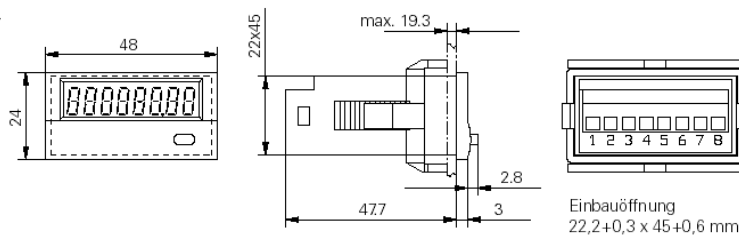
<b>scope of delivery</b>	elapsed-time counter front frame for screw mounting front frame for clamp mounting clamps seal manual
<b>installation</b>	Use shielded wires for the counting and control inputs to obtain the maximum EMC stability.
<b>applications (e.g.)</b>	operating time and lifetime measurement passage time measurement time monitoring
<b>intended purpose</b>	<p>The elapsed-time counter is for assembly-purposes only. The product's scope of application lies in industrial processes and control systems. The overvoltages, to which the devices are subjected at the connection terminals, must be limited to the value of the overvoltage category II (acc. EN 61010 part 1). The operation in areas subject to explosion hazards is not permitted. The operation in areas that are excluded in EN61010 par 1 is not permitted. The device may only be operated in properly installed state and according to the technical data.</p> <p>Product contains a lithium battery. Do not open by force, do not throw into fire! Avoid temperatures under -20°C and above +70°C.</p>
<b>notes</b>	
<b>safety warning</b>	<p>Use the counter only:</p> <ul style="list-style-type: none"><li>- for intended use</li><li>- in technically perfect condition</li><li>- in compliance with the operating instructions and the general safety rules</li></ul> <p>Please also consider possible country- or application-specific safety standards!</p>

**2. Technical data**

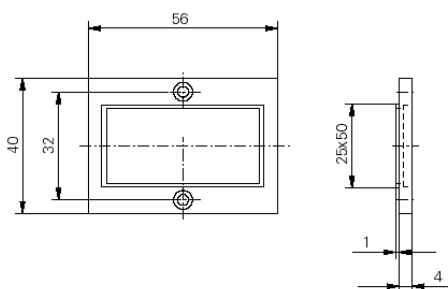
display	LCD, 8-digits, height of figures 8mm	
display range	0 ... 99999999 with leading zeros suppression	
accuracy	<100ppm	
overflow	In case of a display range overflow, the timer starts again from 0, but without removing the leading zeros and activating all decimal points.	
keys	Electrical locking of the reset key.	
housing	Panel mounting 48x24mm acc. DIN 43700	
panel cut-out	22,2 <sup>+0,3</sup> x 45 <sup>+0,6</sup> mm	
mounting depth	approx. 48mm	
weight	approx. 50g	
degree of protection	IP65 on the front side	
connection	terminal	screw terminals, RM 5.0, 8-poles
	wire	rated cross-section: 4.0 mm <sup>2</sup> single-wire / 2.5mm <sup>2</sup> fine-wire connection diameter 0.4 ... 2.3 mm single-wire
EMC	interference emissions	EN 55011 Class B
	interference resistance	EN 61000-6-2
voltage supply	non-replaceable lithium battery (lifetime approx. 8 years at 20°C)	
inputs	see 4. „terminal assignment“	
working temperature	-10 ... +55°C, rel. humidity <85%, without condensation	
operating temperature	-10 ... +60°C	
storage temperature	-20 ... +70°C	
backlighting	external voltage supply 24V DC ±20%, 50mA	

**3. Dimensional drawings**

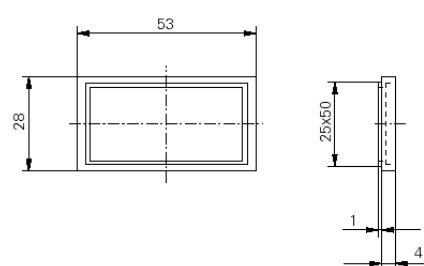
elapsed-time counter



front frame for screw mounting



front frame for clamp mounting



panel cut-out: 25<sup>+0,5</sup> x 50<sup>+0,6</sup> mm

## 4. Terminal assignment

screw terminal 1 **Timer-enable-input:** time measurement, as long as the level at this input is high  
optocoupler input 10 ... 260V AC/DC, galvanic isolation, active for high signal

input resistance: approx. 160kΩ  
low-level: 0 ... 2V AC/DC  
high-level: 10 ... 260V AC/DC

screw terminal 2 **Common AC/DC** common connection for optocoupler inputs (screw terminals 1 and 3)

screw terminal 3 **Reset input:** optocoupler input 10 ... 260V AC/DC, galvanic isolation

active for high signal  
input resistance: approx. 160kΩ  
low level: 0 ... 2V AC/DC  
high level: 10 ... 260V AC/DC  
min. pulse duration 16ms

screw terminal 4 **Electrical release of the front-side reset key**

input resistance: approx. 2.2MΩ  
reset key released at low-level (0 ... 0.7V DC) or contact with GND  
reset key locked at high-level (3 ... 5V DC) or not connected

screw terminal 5 **Time range switching (Mode)**

input resistance: approx. 2.2MΩ  
low-level: 0 ... 0.7V DC or contact with GND: time range 2  
high-level: 3 ... 5V DC or not connected: time range 1

*Note: If the time range is changed during operation, the device must be reset, otherwise the counting value will not be reproducible.*

screw terminal 6 common GND-connection for screw terminals 4 and 5

### **only CZ095400 and CZ095402**

screw terminal 7 not assigned

screw terminal 8 not assigned

### **only CZ095410 and CZ095412**

screw terminal 7 external voltage for LCD-backlight (-)

screw terminal 8 external voltage for LCD-backlight (+) 24V DC ±20%, 50mA

## 5. Versions

article-no.	time range 1	time range 2	backlight option
<b>CZ095400</b>	9999h 59m 59s	9999999.9s	no
<b>CZ095410</b>	9999h 59m 59s	9999999.9s	connectible
<b>CZ095402</b>	99999h 59m	99999.99h	no
<b>CZ095412</b>	99999h 59m	99999.99h	connectible