

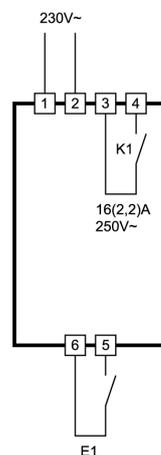
ST73-31.07

Timer switch

Order number 900206.012



Wiring diagram



Product description

The timer ST73-31.07 was developed for simple process control. The round housing allows applications at locations in which formerly only mechanical controls were in use. The timer is supplied with a tension of 230V AC. The installed relay has a maximum electric Ohm load of 16A. Inductive loads can be switched up to 2.2A.

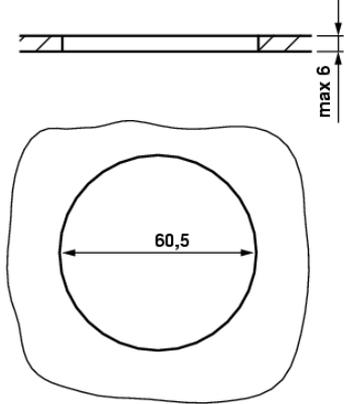
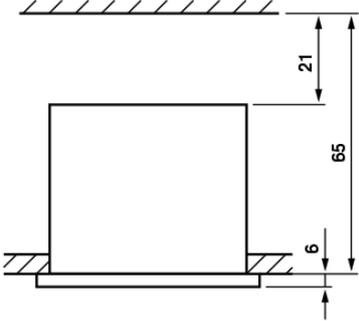
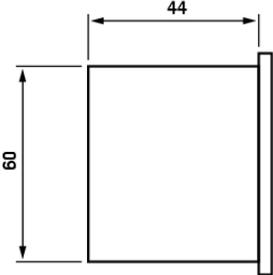
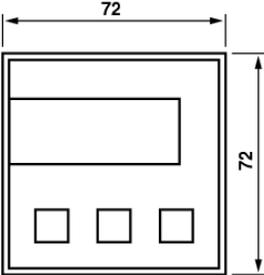
Front size: 72mm x 72mm

Panel cut-out: 60mm round

Tightness: front IP65

Connector: flat plug 6.3mm

ST 73 ...



SOFTWARE .07

General information:

The microprocessor-controlled timer ST 64-31.07 has a simple start / stop function.

In its initial state is the operating time (setpoint) T1 is displayed. It can be adjusted with the UP or DOWN key. The START / STOP button starts the countdown, the timer runs and K1 is turned on or off (P7).

Without auto reset (P17 = 0): If the timer has elapsed, the display flashes and the buzzer sounds for a predefined period (P9). In addition, K1 is turned on or off (P7). Press the START / STOP button again to acknowledge (mute) the buzzer and the timer returns to its initial state (showing the operating time T1).

With Auto Reset (P17 = 1): If the timer has elapsed, K1 is turned on or off and the timer returns immediately to its initial state (showing the operating time T1).

Once the timer is started, it can be stopped with the START / STOP button.
Instead of the START / STOP button, the input E1 can be used for the same functions.

Adjustment options



Key UP

Pressing this key you can increase the parameter or parameter value or scroll the parameter list. In addition, the operating time T1 can be displayed during a running timer.



Key DOWN

Pressing this key you can decrease the parameter or parameter value or scroll the parameter list. In addition the operating range (parameter P1) can be indicated.



Key Start/Stop

With this key the timer can be started or aborted and the buzzer can be cancelled.

The actual time is automatically displayed with the optimal resolution:

999 ... 10	→	9:59 ... 0:10	→	9:59 ... 0:00
999h ... 10h		9h 59m ... 0h 10m		9m 59s ... 0m 0s
Display will change every hour		Display will change every minute		Display will change every second

If the resolution 0.1 is selected with parameter P1=3, the timer runs from

99.9 ... 0.0 seconds.

First control level:

Adjusting the operating time

By pressing the UP or DOWN key the operating time can be set directly. By permanent pressing the time changes continuously.

Parameter	Function	Adjustable range	Standard setting	Customer setting
T1	Operating time (setpoint)	000...999 (see P1)	60	

Second control level (P-parameter):

Adjusting of timer parameters

Simultaneously pressing the UP and DOWN key for at least 4 seconds opens a parameter list containing timer parameters.

With the UP and DOWN keys the list can be scrolled in both directions.

Pressing the START/STOP key will give you the value of the respective parameter. Pressing also the UP or DOWN key at the same time the value can be adjusted.

Return to the initial position takes place automatically, if no key is pressed for 60 seconds, or by simultaneously pressing the UP and DOWN key for approx. 4 seconds

Parameter	Function	Adjustable range	Standard setting	Customer setting
P1	Operating range for T1	0: 0...999 seconds 1: 0...999 minutes 2: 0...999 hours 3: 0...999 1/10-seconds	0	
P5	Function input E1 (START/STOP)	0: start with closed contact 1: start with opened contact	0	
P7	Function output K1	0: activated during timer 1: deactivated during timer 2: activated together with buzzer 3: deactivated together with buzzer	0	
P9	Buzzer duration (only if P17=0)	0...180 seconds	10	
P10	Trigger start function	0: key or switching input E1 1: key only 2: switching input only	0	
P11	Trigger stop function	0: key or switching input E1 1: key only 2: switching input only	0	
P12	Display mode operating time	0: remaining time 1: elapsed time		
P17	Auto-reset	0: no reset 1: Timer elapsed: reset	0	
Pro	Program version			

Parameter description:

P1: Operating range K1

There are four operating ranges available: 1/10 seconds, seconds, minutes and hours, each with a range from 0 to 999.

P5: Function input E1 (start)

The timer can be started with switching input E1 by a closed or opened contact.

P7: Function output K1

This parameter determines whether the switching output K1 is activated or deactivated during the timer or together with the buzzer.

P9: Buzzer duration

The buzzer is activated for the here adjusted time. In case of an activated auto-reset (P17=1) the buzzer is ineffective.

P10: Trigger start function

The timer can be started by the integrated "Start" key or by the switching input. With this parameter one can select either one or both of this functions.

P11: Trigger stop function

The timer can be stopped by the integrated "Stop" key or by the switching input. With this parameter one can select either one or both of this functions.

P12: Display mode K1 operating time

The display can indicate either elapsed or remaining operation time for K1.

P17: Auto-reset

After the time is elapsed the controller can be automatically set to start condition. With the next pressing of the START/STOP key (or input) the timer starts immediately.

Pro: Program version

The software version installed in the unit is indicated.

Technical data of ST73-31.07

Inputs

E1: Switching input for an external potential-free switch.
see parameter P5.

Outputs

K1: Relay, normally-open contact, 16(2.2)A 250V
Additional buzzer, 85dB

Display

One 3-digit LED Display, height 13 mm, colour red

Power supply

230V 50/60Hz

Connectors

Pins 1 ... 4: flat plug 6.3 x 0,8 mm

Pins 5 ... 6: flat plug 2.8 x 0.5 mm

Ambient conditions:

Storage temperature: -20...+70°C

Operating temperature: 0...+55°C

Relative humidity: max. 75% without dew

Weight

ca. 200g

Enclosure

Front IP65

Installation data

Front size: square, 72 mm x 72 mm

Panel cut-out: round, diameter 60.5 mm

Installation depth: ca. 65 mm with connector

Mounting: by fixing strap