SIEMENS

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SEH62.1

Time Clock   SEH62.1

Digital time switch used to switch plant on and off, or for the control of setback periods at night and weekends.

- **Integrated count down timer for after programmed hours operation**
- **Count down timer only option**
- **Suitable for mounting on DIN rails**
- **Simple programming with large clear LCD**
- **Manual on/off control**
- **Quick Daylight Saving (DS) adjustment**
- **Power reserve of 72 hours**

Functions

The microprocessor automatically stores the programmed times in chronological order. The time switch operates in one of four modes: manual continuously On, manual continuously Off, adjustable count down timer On or operated automatically via the time programme. A momentary contact close switch across M, D1 activates Count down timer. The power supply is buffered by a memory back-up capacitor. In the event of a power failure the clock will continue to run, with the programme retained, for 72 hours. However, the relay will go to (or remain in) the normal position.

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Initial set-up

Once power has been connected to SEH62.1, initial settings can be made. Press both **+** and **-** buttons simultaneously for 5 seconds to set time and timer values.

Set current time

Set current time by pressing **+/-** buttons until **TIME** is displayed. Press **SEL** button. Select **12hr** or **24hr** format by using **+/-**. Press **SEL** to save. Select current time by using **+/-**. Press **SEL** to save. Select day of week by using **+/-**. Press **SEL** to save.

Set count down timer

Set count down timer by **+/-** buttons until **CTDN** is displayed. Press **SEL** button. Select timer switch-on time by using **+/-**. Press **SEL** to save. Momentary closure of M-D1 terminals will energise Q output for the pre-set switch-on time.

Once timeclock and count down timer settings are complete, use **+/-** buttons to select **EXIT**. Press **SEL** to display main screen.

Programming

The SEH62.1 allows up to 8 programmed on/off periods. Each of these periods can be assigned to a single day or blocks of days as displayed on screen.

View programmed on/off periods by pressing **+/-** buttons. Press **SEL** to set first programme. Select block of days by using **+/-**. Press **SEL** button to save. Select switch-on time by **+/-**. Press **SEL** to save. Repeat process for switch-off time and for additional on/off periods if required.

Daylight savings

Increasing or decreasing current time by 1 hour can be done quickly by pressing **–** button while in main screen until **DS** is displayed. Press **SEL** button. Select **DS+1** or **DS-1** by using **+/-**. Select **DS+1** to increase current time by 1 hour or **DS-1** to decrease current time by 1 hour. Press **SEL** to save.

Manual override

Press **SEL** button while in main screen for manual operation.

Manual on = Output is permanently on.

Manual off = Output is permanently off.

Auto = Output is on or off depending on programme settings.

LCD display

Status line ——— **ON OFF AUTO MANUAL ⏱↓** ——— Count down enable

Program set line ——— **Prg 1 2 3 4 5 6 7 8**

Week day line ——— **Su Mo Tu We Th Fr Sa**

Time/Setup title line ———

Operating buttons

The controller has three operating buttons for the following functions:

SEL ●

The SEL ● button is used to enter or save the value adjustment. This button also acts as a manual on/off button.

▲
▼

The ▼ operating buttons are used for viewing and adjusting parameters.

Screen will default back to main screen if no selection has been made for 60 seconds while in setting mode.

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SEH62.1 Time Clock

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Engineering notes

Intended use

Use this time clock only for applications as described in the description on the title page (bold print) and the section "Function". Additionally, observe all conditions and restrictions imposed in this section and in "Technical data".

⚠️

The sections marked with a warning symbol contain technical safety requirements and restrictions. Observe all of these warnings as they directly relate to the protection of personnel and equipment.

Installation notes

Mounting

Programming/installation guide is enclosed with the time clock.
Although microprocessor protection is provided, unusually strong electromagnetic fields could cause interference.

To avoid interference:
– The device should not be installed close to inductive components
– Inductive components must be fitted with interference suppressers (varistor / RC unit)

After clearing the cause of interference, the time switch must be reset.

– The connection terminals must be freely accessible.
– Ensure adequate air circulation to dissipate the heat generated during operation.
– 2 clear holes are provided for surface mounting.

The SEH62.1 can be mounted as follows:
Observe all local installation and mounting regulations.

A   On a DIN rail (EN 50 022-35 x 7.5) at least 60 mm long

B   Wall mounted with 2 screws

C   Front mounted using standard elements.
        e.g. 1x DIN rail 100 mm long 2x hexagonal placeholders 50 mm, washers and screws.

D   In ARG62.22 protective housing with other devices

⚠️

The SEH62.1 is for indoor use and must have all terminations well-protected by plastic cover or in a panel/enclosure.

A   **B**   **C**   **D**
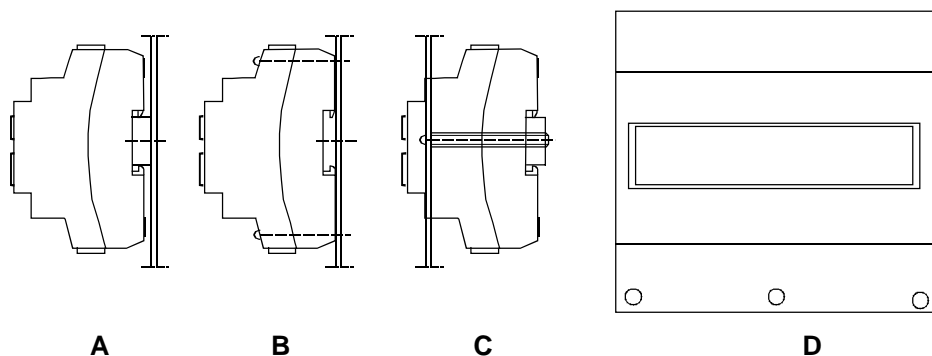
Electrical installation

⚠️

The SEH62.1 is designed for AC 230 V primary supply voltage.

There must be a minimum of 8mm distance from terminations to panel/enclosures in order to avoid electric shock. Under no circumstances should the front cover of SEH.. be removed.

All local electricity regulations must be observed.

Technical data

General data

⚠ Power supply	Operating voltage	AC 230 V −15…10 %
	Frequency	50 Hz/60 Hz
	Power consumption	3.0 VA
	Usage	Built-in unit for control panel mounting
Environmental conditions	Operation	to IEC 721-3-3
	Climatic conditions	class 3 K5
	Temperature	0...+50 °C
	Humidity	<95 % r.h.
	Transport	to IEC 721-3-2
	Climatic conditions	class 2 K3
	Temperature	−25...+70 °C
	Humidity	<95 % r.h.
	Mechanical conditions	class 2M2
	Storage	to IEC 721-3-1
	Climatic conditions	class 1K3
	Temperature	−25...+70 °C
	Humidity	<95 % r.h.
Norms and standards	CE conformity to	
	EMC directive	89/336/EEC
	Low voltage directive	73/23/EEC
	N474 **C-Tick** conformity to	AS/NSZ 4251.1:1994
	EMC emission standard	
	Product standards	
	Automatic electrical controls for household and similar use	EN 60 730 - 1
	Particular requirements for timer and time switches	EN 60 730 - 2 - 7
	Electromagnetic compatibility	
	Emissions	EN 50 081-1
	Immunity	EN 50 082-1
	Devices of safety class	II to EN 60 730
	Degree of protection of housing	IP 20 to EN 60 529
	Colour of housing	Top light grey (RAL7035)
		Bottom silver grey (RAL 7001)
Mounting	Snap-mounted	on DIN rail (EN50022-35 x 7.5) or screwed to a flat surface
Terminals	Screw terminals for cables with	min. 0.5 mm diameter
		max. 2 x 1.5 mm^2 or 2.5 mm^2
Weight, dimension	Weight including packaging	0.3 kg
	Dimensions	78 x 106 x 56 mm, see also drawing "Dimensions"
Digital input D1	Polling voltage for control commands (D…M)	DC 24 V
	Current consumption	8 mA
	Required input	Momentary contact closure
Time clock	Time basis	Quartz
	Memory locations	8 for 7-day clock, with grouping into 12 blocks for 24-hour clock
	Power reserve	nominal 72 hours, after 24 hours of op-

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	eration
Accuracy	± 1 s / day at 20 °C
Display	40 mm LCD
Maintenance	Not required

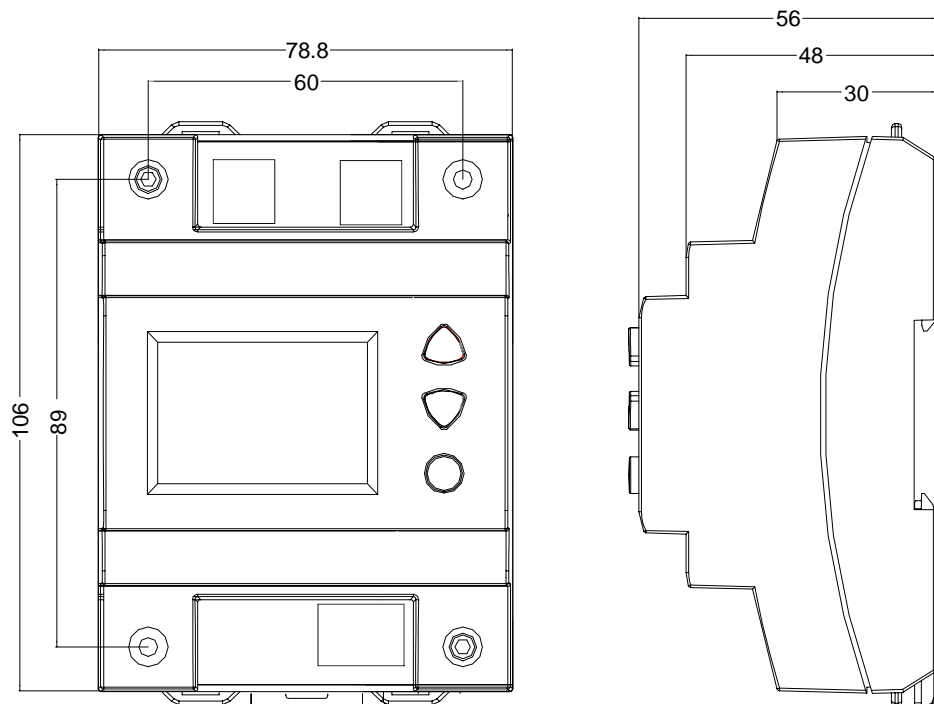| Signal output Q | Relay contacts (potential-free) | |
	- Voltage	AC 24…240 V
	- Contact rating	Max. 6 A resistive
		Max. 3 A inductive

Diagrams

Internal diagram
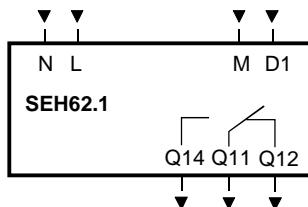
Legend

L, N	AC 230 V Input
	(⚠ AC 230 V Power supply)
M, D1	Digital Input (momentary close switch)
	(⚠ Do not connect external power to these terminals)
Q…	Digital output, various voltages permissible AC 24…230 V)

Dimensions

All dimensions in mm