



**SEM62.1**



**SEM62.2**

## Transformer

With housing

**SEM62.1**  
**SEM62.2**

Transformers providing a reduction in voltage from AC 230 V to AC 24 V.

- Output power 30 VA
- Suitable for mounting on DIN rails
- Secondary power supply indication via LED
- Integral self-resetting primary fuse
- Secondary power supply on/off switch with replaceable fuse

### Use

The SEM62.. mains transformers (with housings) reduce an AC 230 V mains voltage to the AC 24 V supply voltage required by the controllers. The transformers have output power ratings of 30 VA. An integral self-resetting fuse on the primary side protects the transformer from overheating. SEM62.2 includes an on/off switch with replaceable fuse. This eliminates the need for additional 24V circuit on/off switch and fuse (or circuit breaker).

### Type summary

Type	Description
<b>SEM62.1</b>	Standard transformer
<b>SEM62.2</b>	Transformer with switch and replaceable fuse

## Mechanical design

The SEM62.. transformers are single-phase split-bobbin safety transformer. On the primary side, the transformers are protected by a built-in PTC fuse. If the primary-side fuse trips, the fault condition on the secondary side must be cleared. When the transformer cools down, the fuse will reset automatically and normal operation will be resumed. Secondary power supply indication is provided via a green LED. SEM62.2 has a secondary side on/off switch with replaceable fuse.

## Transformer sizing

The transformer power can be calculated by adding together the power consumption of all the connected devices. For valves, a figure of 1.5 times the nominal power of the valve should be used. In the case of valves connected in a sequence where only one valve (heating or cooling) can be open at any given time, only the larger valve need be included in the calculation. Where it is possible for several valves to be open at the same time, the nominal power of all connected valves must be added together.

<b>Example</b>	1 controller		4 VA
	1 valve actuator (heating)	2 VA	– VA
	1 valve actuator (cooling) ( x 1.5)	8.5 VA	13 VA
	<b>Total</b>		<b>17 VA</b>

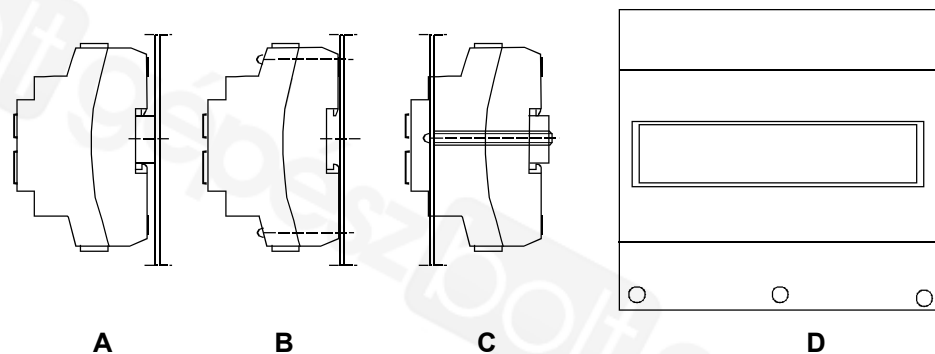
## Mounting / installation notes

The transformer 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 120 mm long
- B Flat surface mounted with 2 screws
- C Front mounted using standard elements  
e.g. 1x DIN rail 150 mm long,  
2 x hexagonal placeholders 50 mm, washers and screws
- D In ARG62.22 protective housing with other devices



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



## Electrical installation

The SEM62.. is designed for AC 230 V primary supply voltage.

When using several transformers in one system, the connection terminals G0 must be galvanically connected. There must be a minimum of 8mm distance from terminations to panel/enclosures in order to avoid electric shock. The on/off switch is for secondary power supply only. Under no circumstances should the front cover of SEM.. be removed.

All local electricity regulations must be observed.

## Disposal



The devices are considered electronics devices for disposal in term of European Directive 2012/19/EU and may not be disposed of as domestic waste.

- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Technical data

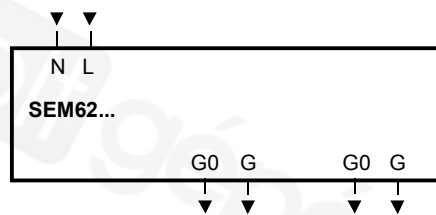
### General data

⚠ Power supply	Voltage	AC 230 V –15... +10 %
	Frequency	50 Hz/60 Hz
Primary electrical data	Power consumption	Max. 200 mA
	Fuse	self-resetting (PTC)
Secondary electrical data	Voltage (Safety Extra Low Voltage)	AC 24 V (SELV)
	Total output power	30 VA
	Nominal current	1.25 A
	Fuse rating	Time lag 1.6 A low breaking capacity
	Fuse dimension	5 mm dia x 20 mm long (wire inside glass type)
Temperature range	Operation	0...50 °C
	Storage	– 25...70 °C
	Ambient humidity	Max. 65 %rh, non-condensing
Contamination level		Normal contamination
Standards and directives	EU Conformity (CE)	CE3T5536xx <sup>*)</sup>
	Ⓢ C-tick conformity (EMC)	AS/NZS EN 61000-6-3
Terminals	Screw terminals for cables with	Min. 0.5 mm dia. Max. 2 x 1.5 mm <sup>2</sup> or 2.5 mm <sup>2</sup>
Weight (Including packaging)	SEM62.1	0.900 kg
	SEM62.2	0.910 kg
Dimensions (W x H x D)		113.8 x 106 x 56.4 mm
Mounting		Snap-mounted on rail type EN50022-35 x 7.5 or screwed to a flat surface
	Orientation	Any
General ambient conditions	Conditions of use	– For internal use, in control panels etc.
		– Up to 3000 m above sea level

\*) The documents can be downloaded from <http://siemens.com/bt/download>.

## Diagrams

### Internal diagram

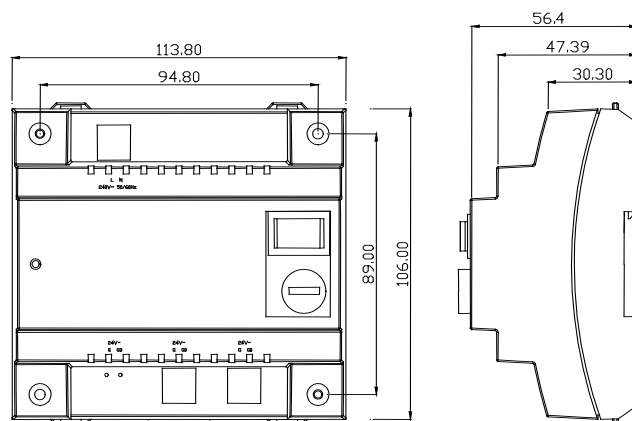


### Legend

N, L AC 230 V Input  
G0, G AC 24 V output

Note: Total transformer output power is 30VA. Two sets of G0, G terminals are provided for easier wiring purposes.

## Dimensions



All dimensions in mm