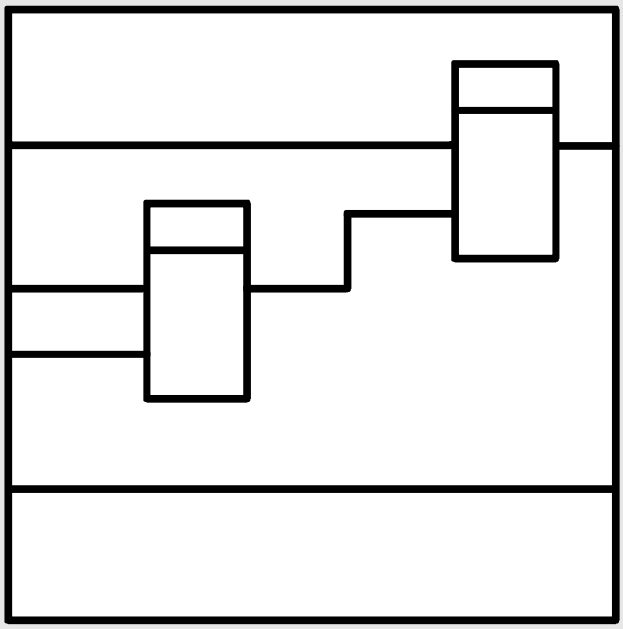
SIMADYN D
Digital Control System

User Manual

Interface board SE13.1



Edition 05.95

DK-Nr. 281641

User Manual, Interface board SE13.1

Edition		Edition status
1	Interface board SE13.1	04.91
2	Interface board SE13.1	05.95

We have checked the contents of this Manual to ensure that they coincide with the described hardware and software. However, deviations cannot be completely ruled-out, so we cannot guarantee complete conformance. However, the information in this document is regularly checked and the necessary corrections included in subsequent editions. We are thankful for any recommendations or suggestions.

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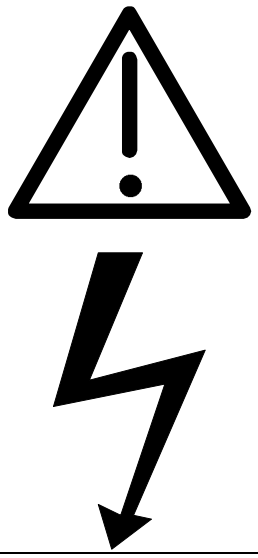
N O T E !

The information in this Manual does not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance.

Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, please contact your local Siemens office.

Further, the contents of this Manual shall not become a part of or modify any prior or existing agreement, committment or relationship. The sales contract contains the entire obligation of Siemens. The warranty contained in the contract between the parties is the sole warranty of Siemens. Any statements contained herein do not create new warranties nor modify the existing warranty.

Warning information



W A R N I N G !

Electrical equipment has components which are at dangerous voltage levels.

If these instructions are not strictly adhered to, severe bodily injury and material damage can result.

Only appropriately qualified personnel may work on this equipment or in its vicinity.

This personnel must be completely knowledgeable about all the warnings and service measures according to this User Manual.

The successful and safe operation of this equipment is dependent on proper handling, installation, operation and maintenance.

Definitions

* **QUALIFIED PERSONNEL**

For the purpose of this User Manual and product labels, a „Qualified person“ is someone who is familiar with the installation, mounting, start-up and operation of the equipment and the hazards involved. He or she must have the following qualifications:

1. Trained and authorized to energize, de-energize, clear, ground and tag circuits and equipment in accordance with established safety procedures.
2. Trained in the proper care and use of protective equipment in accordance with established safety procedures.
3. Trained in rendering first aid.

* **DANGER**

For the purpose of this User Manual and product labels, „Danger“ indicates death, severe personal injury and/or substantial property damage will result if proper precautions are not taken.

* **WARNING**

For the purpose of this User Manual and product labels, „Warning“ indicates death, severe personal injury or property damage can result if proper precautions are not taken.

* **CAUTION**

For the purpose of this User Manual and product labels, „Caution“ indicates that minor personal injury or material damage can result if proper precautions are not taken.

* **NOTE**

For the purpose of this User Manual, „Note“ indicates information about the product or the respective part of the User Manual which is essential to highlight.

C A U T I O N !

This board contains components which can be destroyed by electrostatic discharge. Prior to touching any electronics board, your body must be electrically discharged. This can be simply done by touching a conductive, grounded object immediately beforehand (e.g. bare metal cabinet components, socket protective conductor contact).

W A R N I N G !

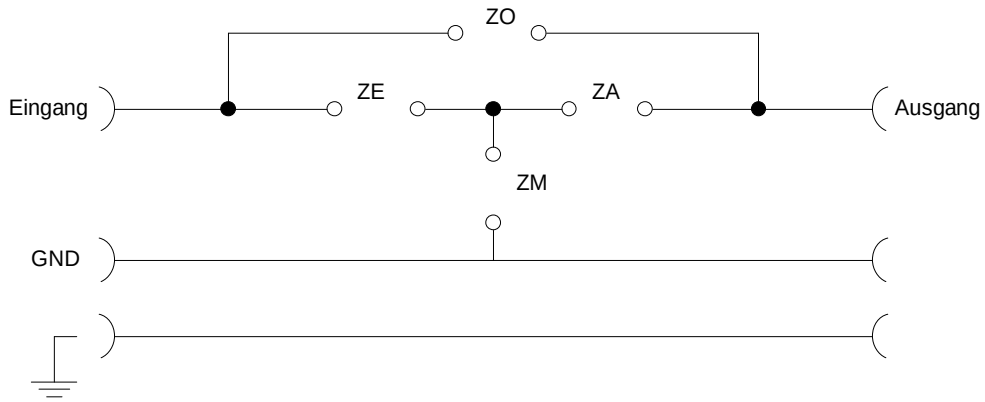
Hazardous voltages are present in this electrical equipment during operation.

Non-observance of the safety instructions can result in severe personal injury or property damage.

It is especially important that the warning information in all of the relevant Operating Instructions are strictly observed.

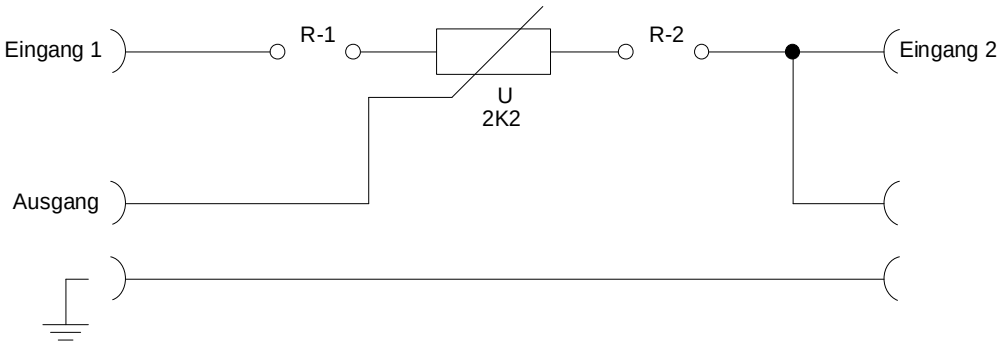
1. Description

The module is provided with six soldering tags to fit components necessary for forming T elements. The T elements are designed for a maximum rated voltage of 220 V.



In addition, a potentiometer and soldering tags for the two resistors R1 and R2 can be used as a voltage divider.

The maximum rated voltage is also 220 V whereas the maximum values for the potentiometers must be taken into account.



2. Module construction

* Housing to be snapped onto mounting rail

* Three-tier 3 x 16-way terminal block

* 6 T elements (freely connectable)
  220 V max.

* 2 voltage dividers (potentiometers) with potentiometer
  220 V max.

* Soldering tags for fitting components with axial connections.
  Grid = 6 units (equal to 15 mm)

* Labelling field for user-specific plant codes.

3. Notes for the user

On the SE13.1 module, various types of circuits can be realized, such as

* filters: T low-pass, T high-pass, T band pass, T band-stop,
  RC element, ...

* Voltage divider etc.

The dimensions are to be defined by the user. The potentiometers in the two voltage dividers have a rating of 500 mW each. For a rating of 2.2 kohms, the maximum permissible current is 15 mA. The maximum operating voltage between the two terminals of the potentiometers is 30V +/- 10 %. These limits must be adhered to by dimensioning the resistors accordingly, which are interconnected via soldering tags.

4. Technical specification

INSULATION GROUP	1 to VDE 010 paragraph 13 rated insulation voltage 300 V DC/250 V AC
AMBIENT TEMPERATURE	O to 55 deg. C
STORAGE TEMPERATURE	-40 to +70 deg. C
HUMIDITY CLASS	F to DIN 40040
DEGREE OF PROTECTION	IP00 to DIN 40050
MECHANICAL STRESS	to SN 29010 class 12
PACKAGING SYSTEM	To be snapped onto mounting rail
DIMENSIONS	112.5 x 77 x 72.5 mm
WEIGHT	230 g
VOLTAGE DISTRIBUTOR	
- RATED VALUE	2.2 kohms +/-20 %
- MAXIMUM VOLTAGE	33 V
- MAXIMUM CURRENT	15 mA

- MAXIMUM CAPACITY 500 mW

5. Terminal assignments -X1

Terminal	Assignment
1	Input volt. divider 1
2	Output
3	Input volt. divider 2
4	Output
5	Input channel 1
6	Output
7	Input channel 2
8	Output
9	Input channel 3
10	Output
11	Input channel 4
12	Output
13	Input channel 5
14	Output
15	Input channel 6
16	Output
21	GND volt. divider 1
22	"
23	GND volt. divider 2
24	"
25	GND channel 1
26	"
27	GND channel 2
28	"
29	GND channel 3
30	"
31	GND channel 4
32	"
33	GND channel 5
34	"
35	GND channel 6
36	"
41	Shielding volt. divider 1
42	"
43	Shielding volt. divider 2
44	"
45	Shielding channel 1
46	"
47	Shielding channel 2
48	"
49	Shielding channel 3
50	"
51	Shielding channel 4
52	"
53	Shielding channel 5
54	"
55	Shielding channel 6
56	"

6. Appendices

6.1. Block diagram

Block diagram	3GE 465 681 9013.10 SP

6.2. Dimension drawing

Dimension drawing	3GE 465 681 9013.10 MB

7. ECB instructions

Components which can be destroyed by electrostatic discharge (ECB)

Generally, electronic boards should only be touched when absolutely necessary.

The human body must be electrically discharged before touching an electronic board. This can be simply done by touching a conductive, grounded object directly beforehand (e.g. bare metal cubicle components, socket outlet protective conductor contact.

Boards must not come into contact with highly-insulating materials - e.g. plastic foils, insulated desktops, articles of clothing manufactured from man-made fibers.

Boards must only be placed on conductive surfaces.

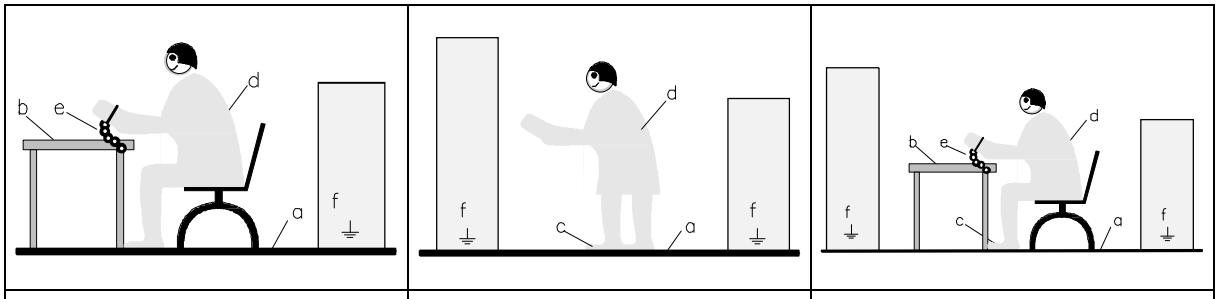
When soldering, the soldering iron tip must be grounded.

Boards and components should only be stored and transported in conductive packaging (e.g. metalized plastic boxes, metal containers).

If the packing material is not conductive, the boards must be wrapped with a conductive packing material, e.g. conductive foam rubber or household aluminum foil.

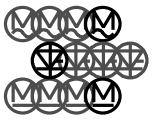
The necessary ECB protective measures are clearly shown in the following diagram.

a = Conductive floor surface
b = ECB table
c = ECB shoes
d = ECB overall
e = ECB chain
f = Cubicle ground connection



Seated	Standing	Standing/sitting

Drives and Standard Products
Motors and Drives Systems Group
Postfach 3269, D-91050 Erlangen



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