MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6DD1681-0FG0

SU10 RIBBON-CABLE TERMINAL INTERFACE

Used with the applicable SIMADYN D SU10 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMADYN D Hardware, April 2011, section 8.9; SU10 identification, mapping and connection requirements.

8.9 Interface modules SU10, SU11, SU12, SU13

Order No.

SU10	6DD1681-0FG0
SU11	6DD1681-0EA1
SU12	6DD1681-0AJ1
SU13	6DD1681-0GK0

General

SU10	SU11	SU12	SU13
The interface module SU10 is a 26-pin terminal block. This is used to code analog or binary signals of a 26 pin ribbon cable connector (SIMADYN D side) on screw/plug-in terminals (plant/system side).	The interface module SU11 is a 20-pin terminal block. This is used to code analog or binary signals of a 20 pin ribbon cable connector (SIMADYN D side) on screw/plug-in terminals (plant/system side).	The interface module SU12 is a 10-pin terminal block. This is used to code analog or binary signals of a 10 pin ribbon cable connector (SIMADYN D side) on screw/plug-in terminals (plant/system side).	The interface module SU12 is a 10-pin terminal block. This is used to code 50 signals of a 50pin sub-D socket connector (SIMADYN D side) on screw/plug-in terminals (plant/system side).

Module design

SU10	26 screw/plug-in terminals (X2) • 25 screw terminal connections for plant/system side analog or binary signals • 1 unassigned screw terminal connection 26 core ribbon cable X1
SU11	24 screw/plug-in terminals (X2) • 20 screw terminal connections for plant/system side analog or binary signals • 4 unassigned screw terminal connections 20 core ribbon cable for connector X1
SU12	16 screw/plug-in terminals (X2) • 10 screw terminal connections for plant/system side analog or binary signals • 6 unassigned screw terminal connections 10 core ribbon cable for connector X1. ribbon cable, 10-core SIMADYN D-side analog- and binary signals
SU13	50 screw/plug-in terminals (X2) • 50 signals are connected • no electronic conversion 50 core screened round cable for connector X1.

8.9.1 Function description

A 1:1 connection from the SIMADYN D-side ribbon cable connector X1 to the plant/system-side screw terminal block X2 is established by using the interface modules SU10 and SU11.

A 1:1 connection from the SIMADYN D-side connector X1 to the plant/system-side spring-cage terminal block X2 is not established for all signals by using the interface modules SU12 and SU13.

The following terminals have a fuse (0,5A slow-blow, internal resistance 0,25Ω) in the following signal lines:

Interface modules	Terminal block X2
SU12	pin 1 – 8
SU13	pin 8, 17 – 23, 26 – 33, 36 – 43, 46 – 48

The following terminals have a protection diode (Schottky- diode, BAT46 by Vishay) for the 24V power supply of the binary outputs in the following signal lines:

Interface modules	Terminal block X2
SU12	pin 10
SU13	pin 10

The following terminals have a ptc resistor (internal resistance 0,9Ω, e.g. B59910-C120-A70 by Epcos) as short circuit protection for the 24V power supply of the binary outputs in the following signal lines:

Interface modules	Terminal block X2
SU12	pin 9
SU13	pin 9

Process signals

The interface modules are designed so that signals can flow from both sides. The process signals are coded without any additional electrical isolation and signal processing.

Voltage range	The maximum allowable voltages of the modules, on which the interface modules are connected, are to comply.
Current range	max. 0.5 A

Table 8-10 Maximum permissible voltage- and current values for signal processing

8.9.2 Supplementary components

Cables for

The following cables are required to connect the interface modules to the modules:

SU10

Cable	Module	Plug connector
SC49	IT41	X6/X7
	IT42	X8
SC50	IT42	X6
SC51	IT42	X7

Table 8-11 Modules and signal cables as supplementary components for SU10

SU11

Cable	Module	Plug connector
SC55	EB11	X5
SC55	EB11	X6
SC12	EA12	X6

Table 8-12 Modules and signal cables as supplementary components for SU11

SU12

Cable	Module	Plug connector
SC54	IT41	X6, X7
	IT42	X8
SC13	EB11	X5, X6
SC7	PM5	X5
	PM6	X5
SC64	FM458-1 DP	X2
SC62	EXM438-1	X3

Table 8-13 Modules and signal cables as supplementary components for SU12

SU13

Leitungstyp	Baugruppen	Steckverbinder
SC63	EXM 438-1	X1, X2, X3

Table 8-14 Modules and signal cables as supplementary components for SU13

8.9.3 Application information

The interface modules can be mounted **vertically and horizontally**. They are snapped onto a mounting rail, .

Other information Further information on EMC and ambient conditions, refer to Section, General technical data“

8.9.4 Pin/terminal assignment X1/X2

The screw terminal numbers of X2 are identical with the ribbon cable connector numbering corresponding to the pin arrangement.

Conductor cross section

Interfacemodule	Minimum conductor cross section for the terminal block X2	Maximum conductor cross section for the terminal block X2
SU10, SU11, SU12	0,2 mm²	2,5 mm².
SU13	0,2 mm²	1,5 mm².

SU10

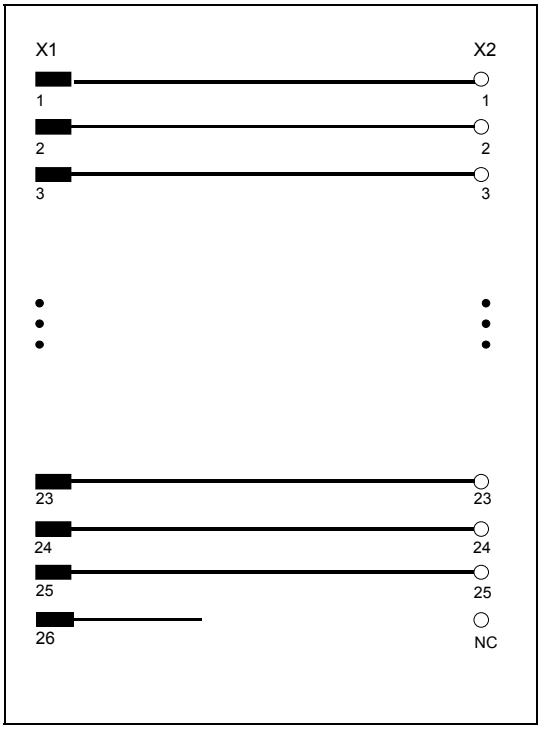


Fig. 8-17 Circuit diagram, SU10