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S!M PATI®

Technical appendices to the installation and operating manual

S!MPATI® Software

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1 NOTES ON THE DOCUMENT

1.1 Scope of application

This document is an additional manual with technical appendices to the installation and operating manual for the Simpati software. This document applies together with the current installation and operating manual for the Simpati software.

1.2 Document target group

The tasks described in this document may only be carried out by specialists with the following qualifications:

– Training for the installation and configuration of IT systems

1.3 Warning notice levels

DANGER
Failure to comply with the directions results in death or severe injury.

WARNING
Failure to comply with the directions can result in death or severe injury.

CAUTION
Failure to comply with the directions can result in minor injury.

NOTICE
Failure to comply with the directions results in property damage.

This is used to indicate additional helpful information.

1.4 Highlights in the document

Text highlight	Explanation	Example
►	Instruction	► Select **settings**.
→	Cross reference	► Adjust light → chap. 6.7.4.
bold	Text on user interface	► Select **settings**. ► Pick **Green** from the **Colour** list.
[ ]	Button	► Select [**Exit**].
>	Several entries that are to be selected one after the other.	► In the menu, select **Settings** > **Tone** > **Volume**.

Table 1-1 Explanation of text highlights

1.5 More detailed information

Control units:

→ Operating manual for the control unit (touch panel)

→ Operating manual for the web panel with Webseason operating software

1.6 Terms used

Term used	Explanation
Tool tip	When the mouse pointer is placed on an element, information about the element is displayed in a small window. This window is termed tool tip.
Simpati-ID	Each test system is assigned its own number in Simpati, the so-called Simpati-ID. The Simpati-ID is a number between 1 and 99. Each number can only be assigned once.

Table 1-2 Terms used

2 SAFETY INSTRUCTIONS

DANGER

Failure to comply with the operating manual of the test system

Failure to comply with the instructions in the operating manual for the test system and its controller may result in death or serious injury.

- Follow the instructions.

NOTICE

Malfunctions due to impermissible accessories

- To minimise fault liability use the connection cables supplied exclusively.
- Take into account that special applications may have different requirements. Follow the specifications for these applications in the Appendix.

NOTICE

Possible loss of data due to poor IT infrastructure on the customer side

Data cannot be saved completely or not at all due to poor customer-side IT infrastructure. The quality of the IT infrastructure depends on the quality of the cables, for example, and any sources of interference.

- Save the data physically close to the test system if possible.
- Heed the quality of the customer-side transmission paths and transmission media.

NOTICE

Manual editing of the configuration data

Faulty functions can occur if you manually edit the configuration data.

- Only have configuration data changed by trained service personnel or following agreement with our Service hotline.

3 SETTING THE TEST SYSTEM CONTROLLER

3.1 Test systems with Mincon / Simcon controller

Simpati supports the JBus protocol of this controller with a transfer rate of 19200 baud. Valid addresses are 1 to 32.

To check the settings of the interface parameters, press the following in the basic menu. The following menu appears:

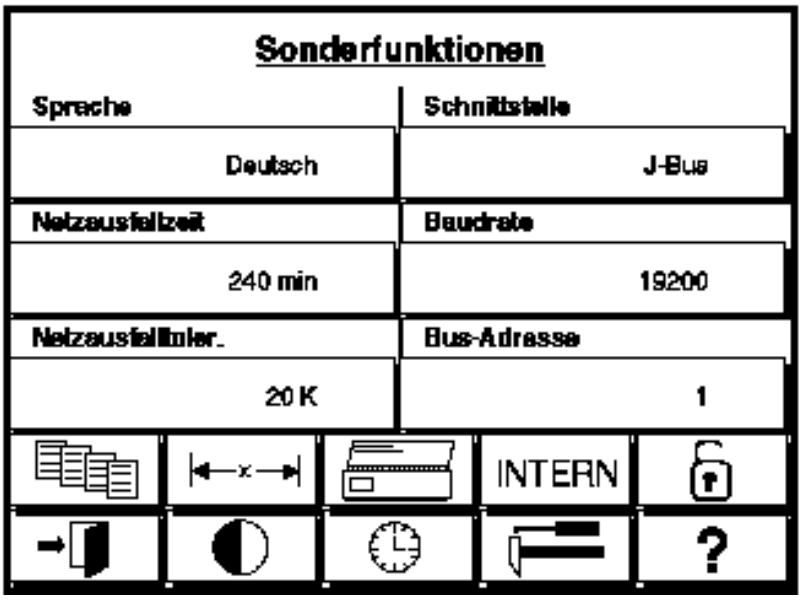

Fig. 3-1 Special functions

The settings made are active after the test system has been restarted. Configuration is automatic by reading out the controller data in Simsetup. By default, test systems with a Mincon/Simcon controller feature a serial RS 232 interface.

3.2 Setting the test system with DMR controller

At the terminal, make the following settings before starting the configuration program:

Base control panel	(→ chapter »Open and closed loop control« in the operating manual of the relevant test system)
Address	1 . . . 9 (version 38 and earlier) 1 . . . 32 (version 39 and later)
Baud rate	9600 baud
The address corresponds to the address in Simpati.	

3.3 Setting the test system with MOPS/CTC/TC controller

At the terminal, make the following settings before starting the configuration program:

E4 terminal (chapter 3.5 of the terminal operating manual)

Interface protocol OP 0	Select: 4 (TSI protocol)
Interface type OP 2	Select: 0 (RS 232)
Address selection OP 3	Selection: 0 to 31 - the address No. on the terminal is 1 digit smaller than the address no. in the Simpati software.

C terminal (chapter 3.2 of the terminal operating manual)

Interface protocol type	Select: External TSI (ISAR controller: transparent)
Interface type	Select: RS 232
Baud rate	Select: 9600
Address selection	Selection: 0 to 31 - the address no. on the terminal is 1 digit smaller than the address no. in Simpati software.

4 PATCH CABLE PIN ASSIGNMENT

4.1 Ethernet interface with Simcon and Simpac controllers

For connection to the network you will need a standard twisted connecting cable of the following type: RJ45 patch cable, Cat.5, STP, 4 x 2

4.2 RS 232 interface for CTC , TC , MOPS controllers

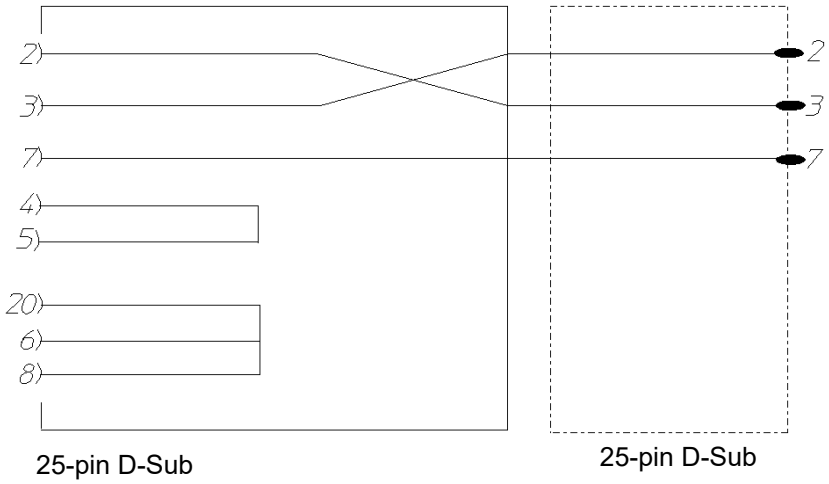

Fig. 4-1 Pin assignment for RS 232 interface cable 25/25 pin for CTC, TC, MOPS controllers

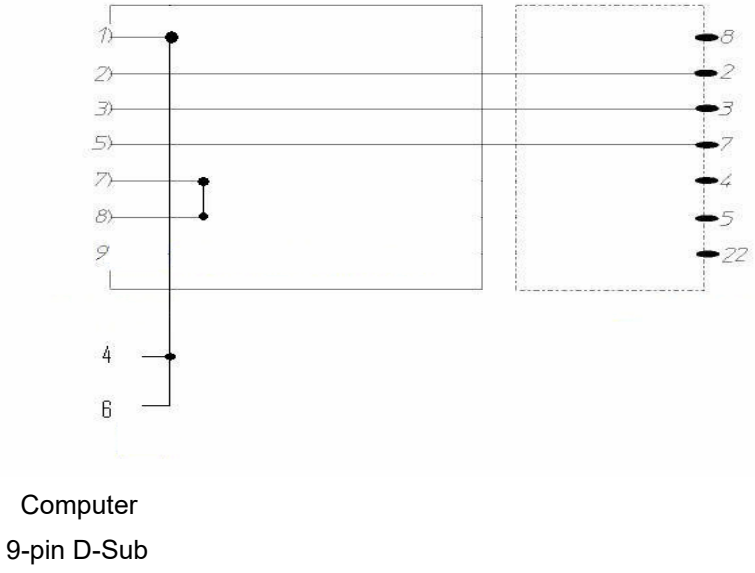

Fig. 4-2 Pin assignment for RS 232 interface cable 9/25 pin for CTC, TC, MOPS controllers

4.3 RS 485 interface for CTC , TC , MOPS controllers

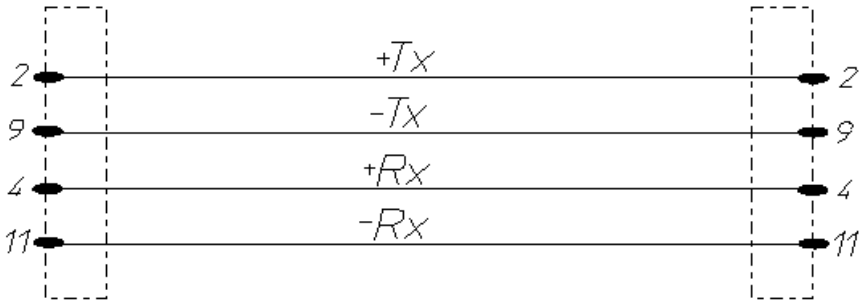

Fig. 4-3 Pin assignment for RS 485 interface cable for CTC, TC, MOPS controllers

4.4 RS 232 interface for Mincon, Simcon, Simpac , DMR controllers

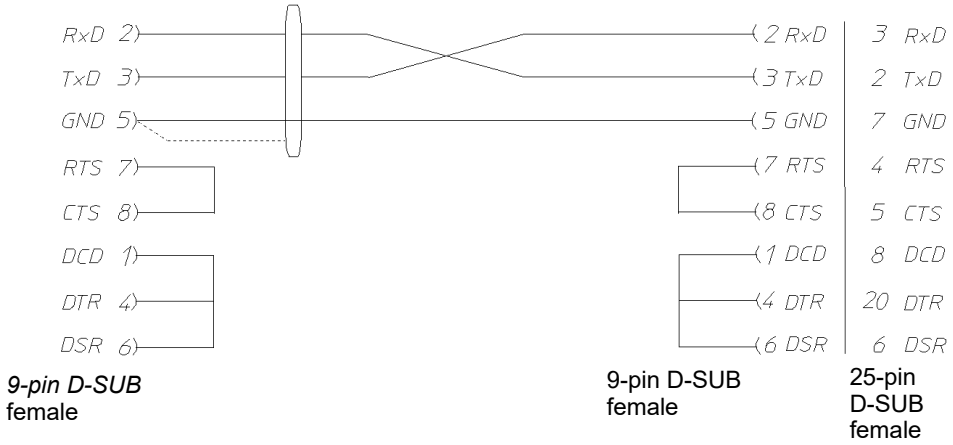

Fig. 4-4 Pin assignment for RS 232 interface cable for Mincon, Simcon, Simpac, DMR controllers

If the RS 485 interface option (art. no. 63823119) is used, the computer needs to be equipped with an RS 232-to-RS 485 interface adapter (art. no. 63823080).

If a test system with Simpac control is to be included in a Simcon/Mincon network, connection is via the RS 232 interface. In this case, the line interfacing conditions and methods of program integration are the same as for Simcon/Mincon controllers. Please note that a minicombox and a Simpati version of 3.0 or higher are required for this.

4.5 RS 485 interface cable for Mincon, Simcon, DMR controller

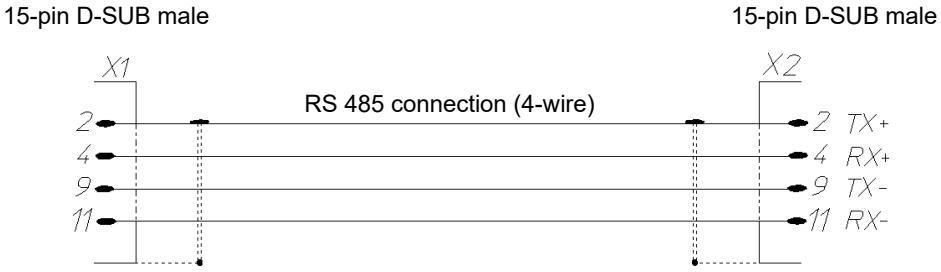

Fig. 4-5 Pin assignment for RS 485 interface cable for Mincon, Simcon, DMR controllers

Bond the shielding extensively to each cable housing.

4.6 RS 485 interface cable for Dicon 50x/100x controllers, Imago 500

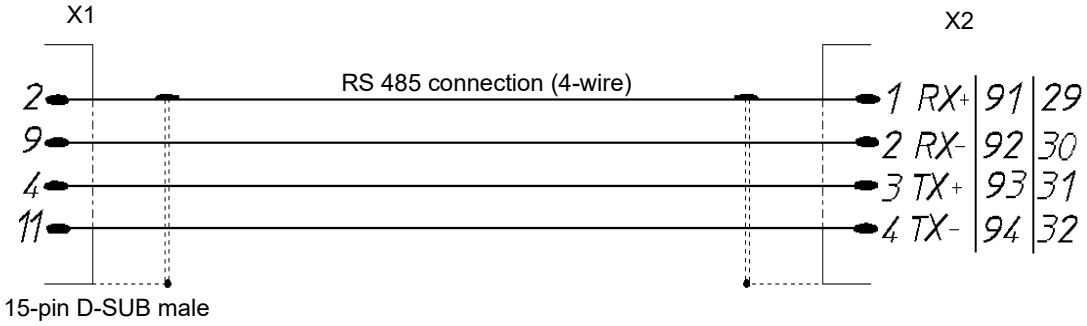

Fig. 4-6 Pin assignment for RS 485 interface cable for Dicon 50x/100x controllers, Imago 500

4.7 RS 485 and RS 232 interface cables for Dicon SM

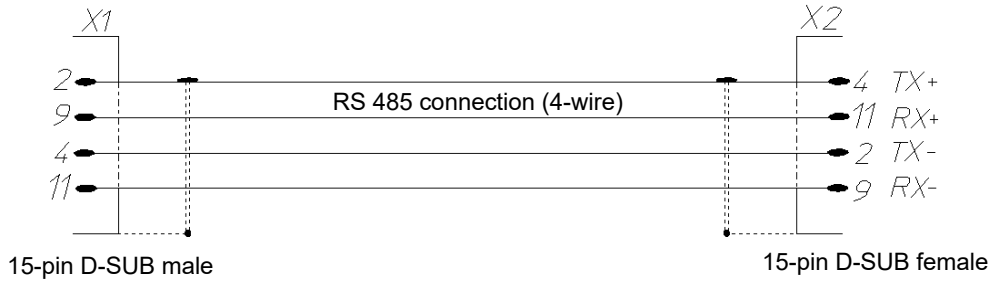

Fig. 4-7 Pin assignment for RS 485 interface cable for Prodicon Plus and SBC controllers

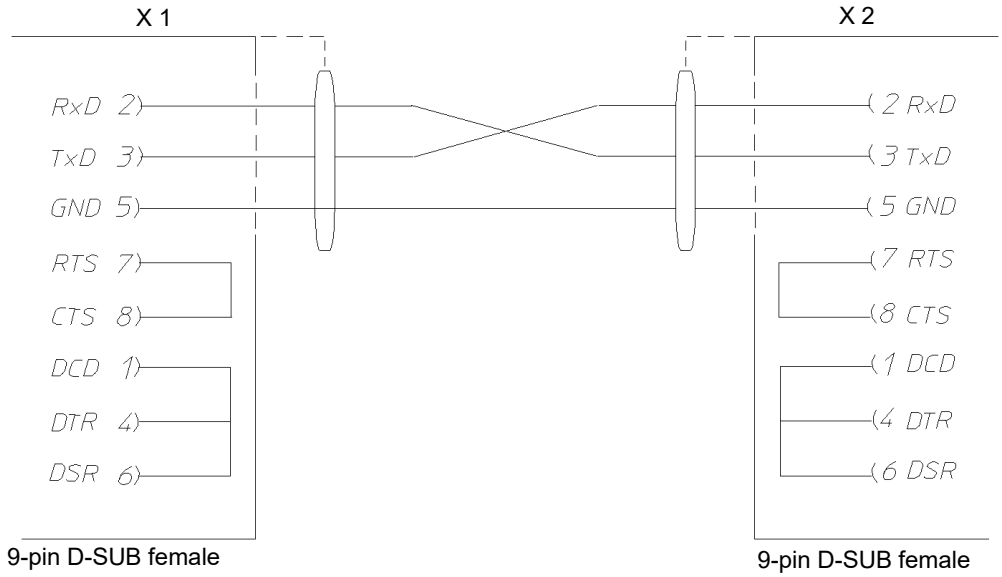

Fig. 4-8 Pin assignment for RS 232 interface cable for Prodicon Plus and SBC controllers

4.8 RS 232 interface cable for 2/3-channel process interface

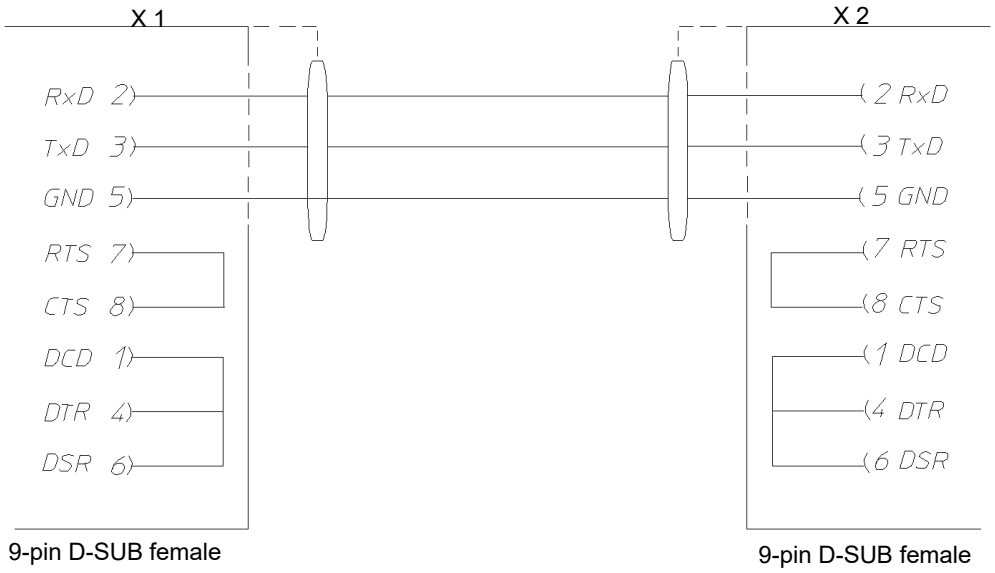

Fig. 4-9 Pin assignment for 232 interface cable for 2/3-channel process interface

4.9 RS 232 interface cable for Dicon PRS controllers

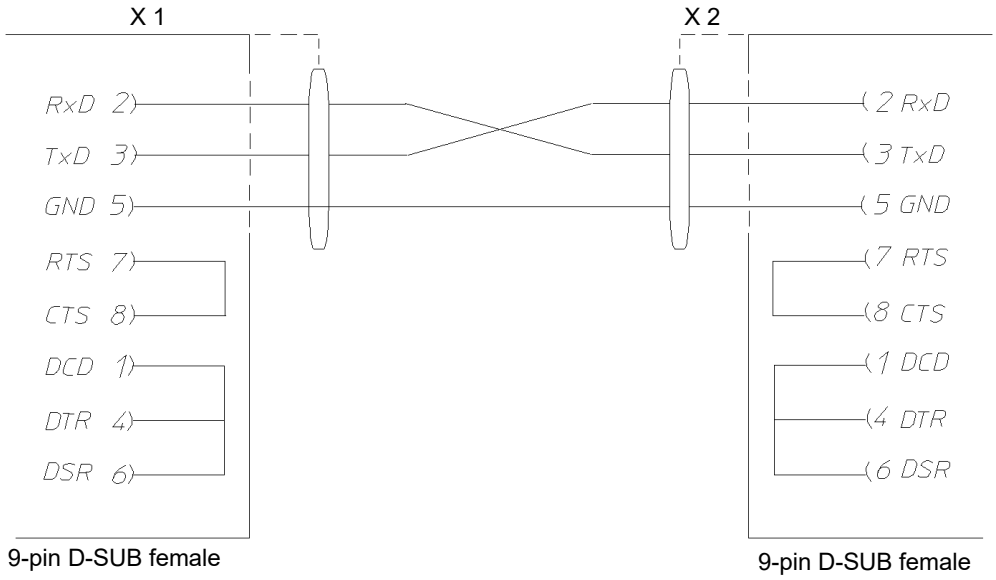

Fig. 4-10 Pin assignment for RS 232 interface cable for Dicon PRS controllers

4.10 RS 485 interface cable for Anaprog controllers

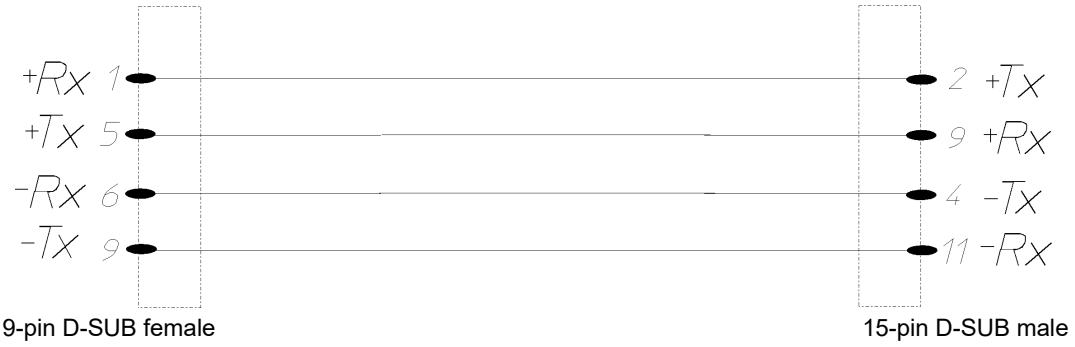

Fig. 4-11 Pin assignment for RS 485 interface cable for Anaprog controllers

4.11 RS 232 interface cable for ZPG 2000 / ZPR 2000 controllers

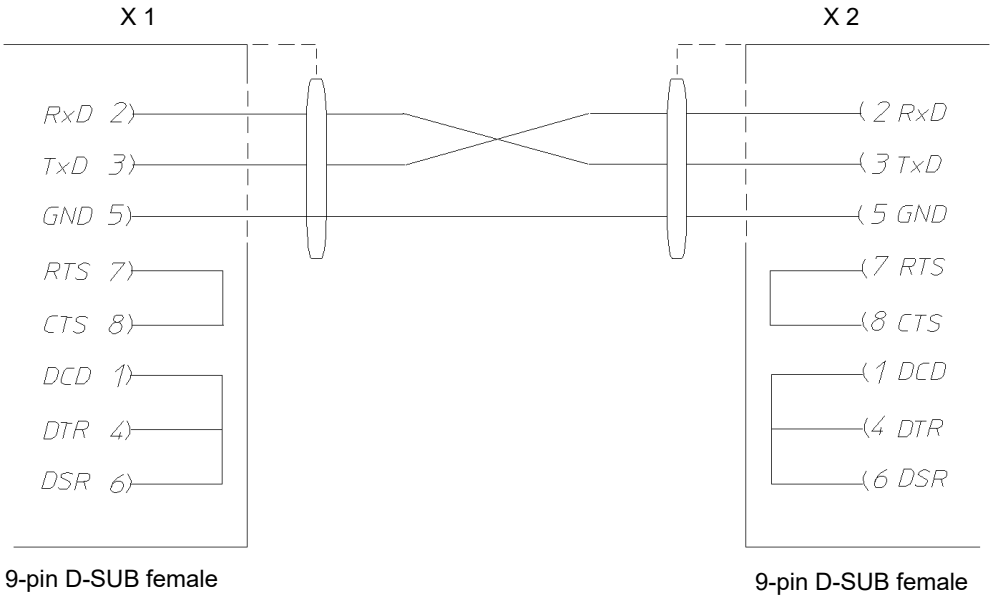

Fig. 4-12 Pin assignment for RS 232 interface cable for ZPG 2000/ZPR 2000 controllers

4.12 RS 232 interface cable for Testa FID 2000 MP

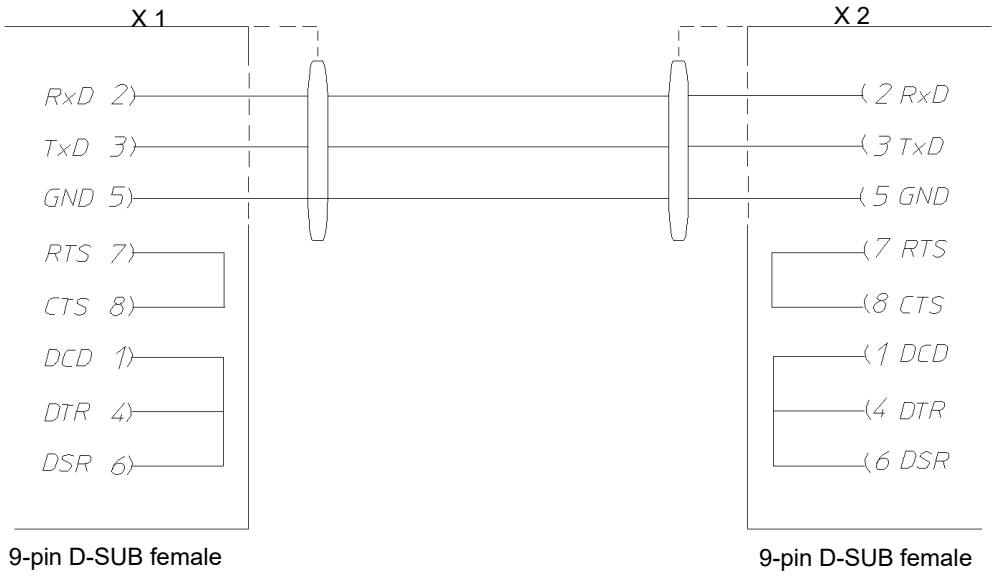

Fig. 4-13 Pin assignment for RS 232 interface cable for Testa FID 2000 MP

5 OPERATION OF SHOCK CHAMBER TS130 MODEL WITH SIMCON/32 CONTROLLER

When running Simpati to create programs, verify that control value #3 "Max. AmbTemp.Time" is set to at least 15 minutes as the nominal value.

If the control value is not programmed (nominal value = 0 minutes) this leads to error message **A031: Timeout wait function** immediately after the program starts.

In order that the control value is always initialised to at least 15 minutes, the steps below must be performed once during installation (or later as well).

Procedure:

- Exit Simpati.
- Edit the configuration file:
  - In the **c:\simpati\init** directory, open the configuration file **simpati.cxx** of the corresponding test system using a text editor (xx = Simpati-ID of the test system).
  - Change MIN value of control value **3** from **0.0** to **15.0**.

```
/** analog output ** short/long/unit/Min-Max/ID ******************/

:ST:001:Speed:Valve.Speed :% :  30.0: 100.0:1:
:ST:002:DEF:Defrist           :    :   0.0:1000.0:2:
:ST:003:MAT :Max.AmbTemp.Time :Min  :  15.0: 100.0:3:
```

- Close and save file.
- Delete shared memory. To do this, delete the concealed files **sim_cxx.** of the corresponding test system in the **c:\simpati\system** directory (xx = Simpati-ID of the test system).
- Start Simpati.
- In Simpati, select the entry **Configuration** in the context menu of the test system.
- Select the tab **Profiles/Limits**.
- Set the nominal value of the control value to **15.0**.
- Choose **Default** as a control variable and then select **Set**.

6 USING DATA LOGGER MODEL 8990-6C

Prerequisite

– The configuration file **Simpati.cxx** must be available. You receive the configuration file **Simpati.cxx** through our Service hotline.
– The computer must have a free RS 232 serial interface. The interface must be permanently available. No other application may access this COM port.

Procedure:

Copying will overwrite special configurations, if any.

► If the file **Simpati.str** is modified, contact our Service hotline.

► Connect the D-Sub plug of the data logger interface cable to a RS 232 interface on the computer.

► End Simpati.

► Adapt the Simpati start file:

► Extend the **Simpati.str** file in the **simpati\system** directory by the entry **30:01:simwutdata::**.

Or:

► Copy the **Simpati.str** file contained in the **simpati\system** directory the configuration disc to the **simpati\system** directory on the hard drive.

► Copy the **Simpati.cxx** configuration file to the **simpati\init** directory.

► In the **simpati\init** directory, change the file extension from **cxx** to match the corresponding test system number, e.g. if the data logger is the second device supported by Simpati, change to c02.

► End Simpati.

► Start Simpati.

► Check whether the entry **simwutdata.exe** is available on the computer task bar.

✓ If the entry is available, installation was successful.

7 CONTACT

Please contact our Service hotline if you have any technical problems:
+49 180 5666556

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