

Instruction Manual

Sediplus® Datamanager

To control and monitor data transfer of the measurement protocol from the
Sediplus® S 100, S 200, S 2000
to
printer and laboratory data management

SARSTEDT No.: 90.189.750



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1. Device data

(to be completed by customer)

Type: _____

Serial no.: _____

Place of installation: _____

Date of installation: _____

Inventory no.: _____

2. Manufacturer's address

SARSTEDT AG & Co.

Postfach 1220

D-51582 Nümbrecht

Phone: +49 (0) 22 93 / 305 0

Fax: +49 (0) 22 93 / 305 282

E-Mail: info@sarstedt.com

3. Important notes

**Read the safety instructions in this manual
before putting the device into operation!**

A sound knowledge of the contents of these operating instructions is a basic requirement to ensure correct use and trouble-free operation of the device.

Please keep these instructions in a safe place for future reference.

Copyright

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Technical modification reserved.

SARSTEDT AG & Co.

Explanation of symbols

These operating instructions contain important symbols to indicate dangers and possible operating errors.



The "Caution" symbol means that in this section:

- Important information is given.
- An immediate or possible risk of danger to life and limb of persons is described.
- A note on dangerous situations is given.

Non-observance of these symbols can lead to minor, serious, or even life-threatening injuries as well as to material damage.



Warning of hazardous electrical voltage!



This "Info" symbol refers to notes regarding proper use of the device or to general, explanatory information. Non-observance of these notes or information can lead to the device being operated incorrectly or even becoming damaged.

Additional symbols contain notes on the topic displayed in the symbol, for example accident prevention regulations, supply voltage, maintenance, or disposal.

Device-specific safety notes



This device has been built according to the latest state of the art and the accepted principles of safety engineering.

All relevant safety information and guidelines, as well as regulations for safety at work and accident prevention regulations for laboratory use must be observed.

Nonetheless, danger can arise for the user or third parties during operation, as well as damage to the device or other material assets.

During the warranty period, the device may only be repaired by SARSTEDT AG & Co. or by persons authorized by SARSTEDT AG & Co.

In case of improper use or repair, the warranty will be void.

The device is a piece of laboratory equipment and complies with the international standard EN 61010 (safety requirements for laboratory equipment).



The device is operated with a mains voltage of 230 V / 50 Hz. Therefore, the following notes must be observed:

- No water or other liquids may be permitted to enter the device.
- The device may only be connected to the mains supply by means of a suitable power cord supplied.
- Before operating the device, check the power cord for signs of damage.
- Damaged power cord must not be used under any circumstances.
- The device must only be connected to the mains voltage specified on the type label.
- A damaged device must not be operated.
- Never open housing parts that are fixed with screws.
- Remove the plug from the wall outlet, if the device is not used for a prolonged period of time or if it is to be cleaned.



The device must only be used with the accessories described in these operating instructions.

Responsibilities of the owner

The device owner is responsible for ensuring that only such persons are allowed to operate the device, who have read these instructions and understand them. This should be confirmed by the person's signature.

Moreover, the observance of safety regulations by personnel should be checked at regular intervals.

Responsibilities of operating personnel

Before working with the device for the first time, the operator must:

- read these operating instructions.
- observe the applicable rules and the regulations for accident prevention.

4. Other information

Guarantee and liability

The "Delivery and Payment Conditions" of SARSTEDT AG & Co. always apply. These are printed on the reverse side of the invoice.

Guarantee and liability claims are excluded, if they are based on one or more of the following causes:

- use of the device for other than the intended purpose.
- improper installation, commissioning, operation, or maintenance of the device.
- operation of the device with defective safety fittings or incorrectly attached or non-functional safety or protective equipment.
- non-observance of the notes in these operating instructions regarding transport, storage, installation, commissioning, operation, maintenance, setting up, or disposal.
- unauthorized modifications to the device.
- catastrophic failure due to external cause and/or force majeure.
- incorrect repairs.

Shutdown / Disposal



- If the device is to be scrapped, it must be handled and disposed of in accordance with the applicable laws and regulations.
- All substances used in connection with the device must be handled and disposed of in accordance with the applicable laws and regulations.



These operating instructions consist of the following materials:
Back binder and protective cover are of PVC – the rest is paper.
Remove the paper by tearing off the back binder.

5. Description of the Sediplus® Data Manager

The Sediplus® Data Manager is an extremely practical addition to Sediplus® devices. With the aid of the Sediplus® Data Manager it is possible to send the measurement protocols of the Sediplus® S 100, S 200 and S 2000 devices to a local printer in addition to the laboratory data processing. The conversion of the serial to parallel data is undertaken by a microcontroller inside the Sediplus® Data Manager. This also regulates the data flow to the laboratory EDP and to the printer. A high degree of data safety is achieved by the double issue of data, once to the laboratory EDP and once to the printer.

6. Transport, Installation and Connection

Standard scope of delivery

- 1x Sediplus® Data Manager, SARSTEDT No. 90.189.750
- 1x Interface cable for the Sediplus® S 100/S 200
- 1x Interface cable for the Sediplus® S 2000
- 1x Mains adapter
- 1x Operating instructions

blood sedimentation device from the SARSTEDT AG & Co. available:

- 90.189.500 Sediplus® S 100
- 90.189.504 Sediplus® S 100, with computer/printer interface
- 90.189.600 Sediplus® S 200
- 90.189.604 Sediplus® S 200, with computer/printer interface
- 90.189.700 Sediplus® S 2000

If you have any questions concerning other SARSTEDT products or the SARSTEDT product range, please contact:

SARSTEDT AG & Co.

Postfach 1220
D-51582 Nümbrecht

Telefon: +49 (0) 22 93 / 305 0

Telefax: +49 (0) 22 93 / 305 282

or contact your local SARSTEDT sales office.

Unpacking

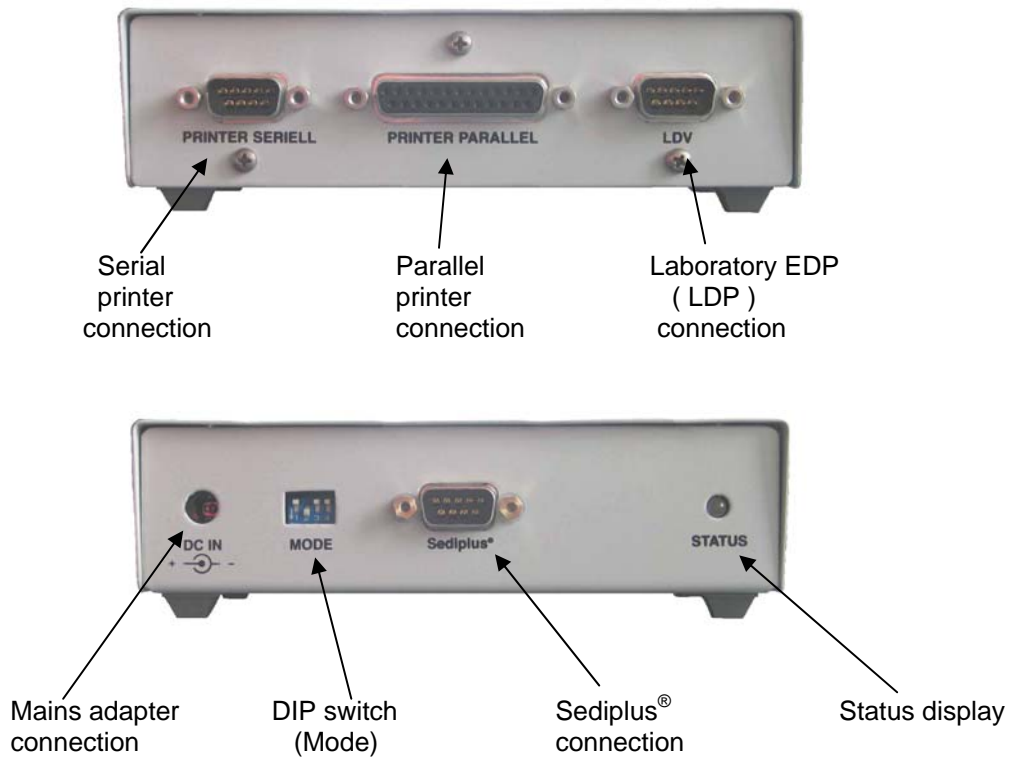


- Check that the packaging shows no signs of damage.
- In case of transport damage, please contact the shipping agent immediately. Observe the notification periods of the different freight carriers (railway, mail, parcel service, trucking company, etc.). It can be as short as 24 hours.
- Check the scope of delivery for completeness.
- Defects and damage must be notified immediately to SARSTEDT AG & Co.

Technical Data

Machine data: Apparatus: Order number:	Sediplus® Datamanager SARSTEDT No. 90.189.750
Supply voltage Power supply	12 V from AC adapterFriwo, Typ: FW75550/12Input: 100-240V~0,4A, 47-63Hz
Ambient conditions Permissible temperature: Max. relative humidity:	+5 ... +40 °C 80 %, no condensation
Dimensions Width x depth x height: Weight:	158 x 90 x 48 mm approx. 0,5 kg

Operation elements



Set up

1. Connect the Sediplus® Data Manager to the Sediplus® Blood Sedimentation Measuring Device.



Data Manager / Sediplus® S2000:

Use the cable link supplied (9-pole bushing – 9-pole bushing).

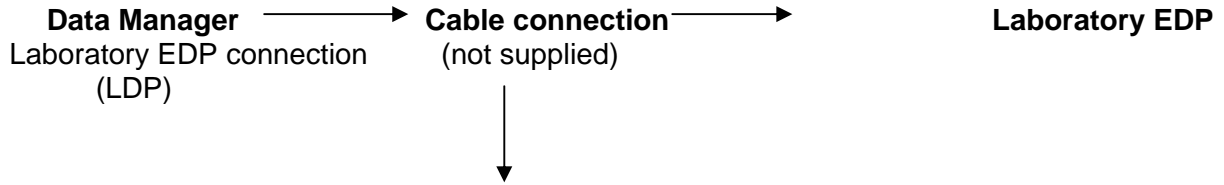
Data Manager / Sediplus® S100/S200:

Use the cable link supplied (9-pole bushing – 9-pole bushing).

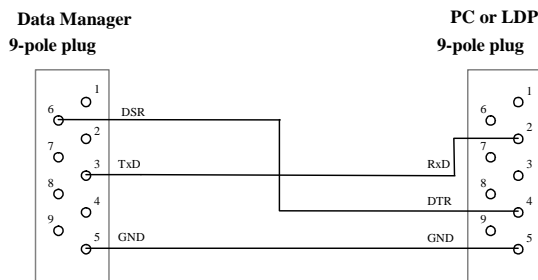
2. Connect the Sediplus® Data Manager to the laboratory EDP.



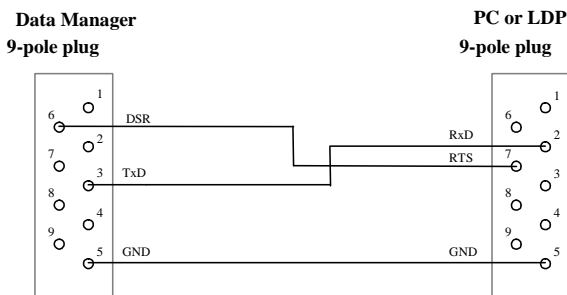
- The connection to the laboratory EDP must be performed by specially qualified personnel.
- Only use shielded cable.



If the EDP system or the PC is operated with the DTR Signal (Data Transmission Ready):



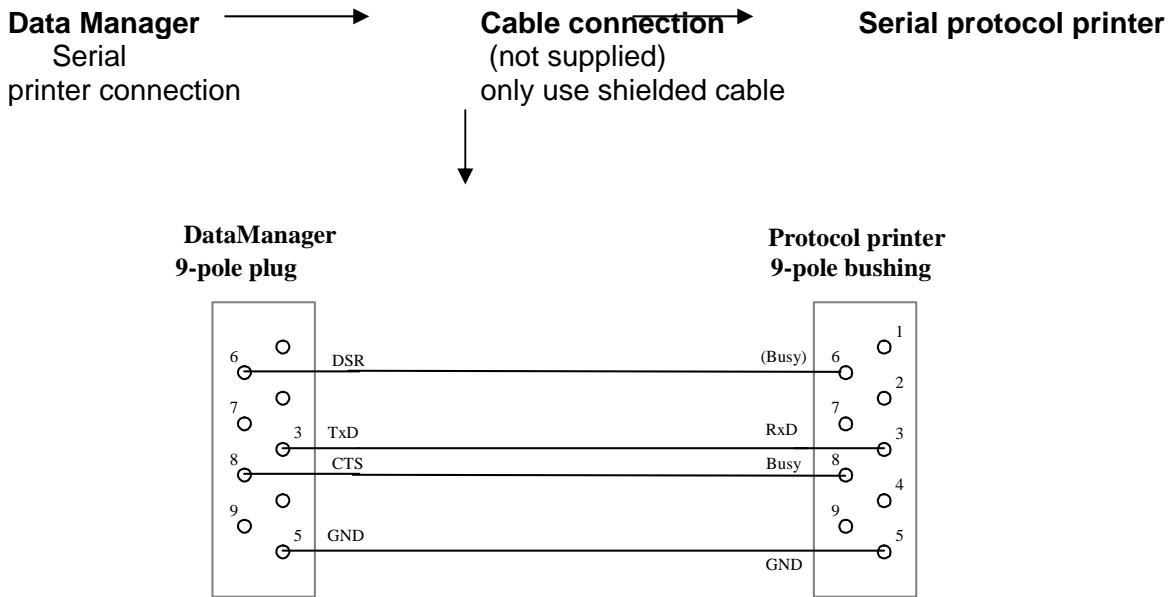
If the EDP system or the PC is operated with the RTS Signal (Request To Send):



If the hardware handshake was disabled during installation of the S2000 by the laboratory EDP company (bridges from Pin 6 (DSR) and Pin 7 (RTS) to the D-Sub-plug S2000) the Data Manager must be set to printer priority.

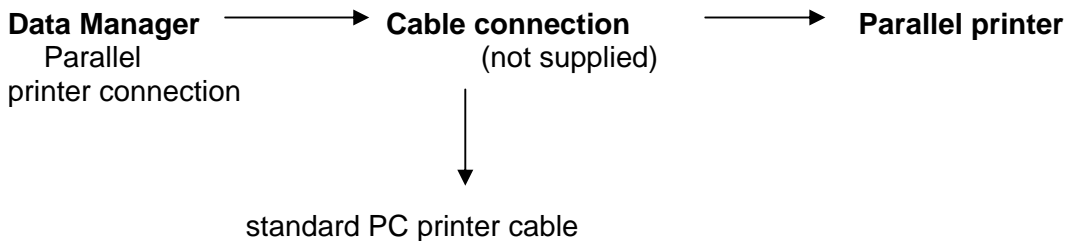
3. Connect the Sediplus® Data Manager to the printer.

A) DESAGA Serial protocol printer:



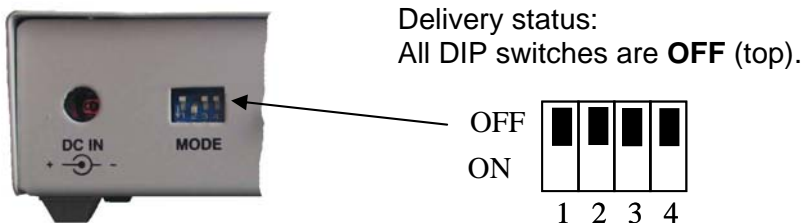
When using the Data Manager with an S 2000 the second supplied interface cable (9-pole plug – 9-pole bushing) be used to connect a serial printer.

B) Parallel printer:



4. Configuration of the Sediplus® Data Manager

The data transfer is set and the interface (parallel / serial) for the printer output selected via the DIP switch.



If a transfer path has priority then data will also be sent there if the lower-ranking receiver is not ready. If both have equal priority data will only be sent if both receivers are ready. In this case particular care must be taken that no operational faults occur (e.g. paper jam or similar).

A) Date transfer: laboratory EDP has priority

Safe transfer of data to the laboratory EDP. The printer receives only an additional copy of the data.

Setting: **DIP1: ON** and **DIP2: OFF**

B) Data transfer: printer has priority

Safe transfer of data to the printer. The laboratory EDP receives only an additional copy of the data.

Setting: **DIP1: OFF** and **DIP2: ON**

C) Data transfer: laboratory EDP and printer are set to equal priority (preferred setting)

Complete transfer to both devices is guaranteed. Output files are only possible when both devices are ready to receive!

Setting: **DIP1: OFF** and **DIP2: OFF**

D) Type of printer: parallel printer

Setting: **DIP3: ON** and **DIP4: OFF**

E) Type of printer: serial printer (CTS as handshake)

Setting: **DIP3: OFF** and **DIP4: OFF**

F) Type of printer: serial printer (DSR as handshake)

Setting: **DIP3: OFF** and **DIP4: ON**



Changes to the configuration only become active following a short-term interruption to the electricity supply.

Commissioning



Caution before initial commissioning!

- Check existing supply voltage and the supply voltage indicated for compliance.
- Pay attention to admissible ambient conditions for the device.
- During cold periods wait for approximately ½ to ¾ hour following delivery and unpacking for the device to reach room temperature (18 °C to 23 °C).

The device is operational once it has been connected to the supply voltage.

If the Status LED lights up in **green**, continue with the data transfer test (point D).

If the Status LED lights up in **red**, the following course of action is advisable:

A. Testing the handshake to the laboratory EDP and to the printer

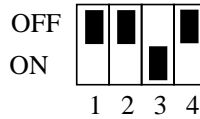


At this stage it is not necessary to have data pending printing by the S100/S200/S2000.

When using a serial printer:
DIP1 to DIP4 on OFF.



When using a parallel printer:
DIP1, DIP2 and DIP4 on OFF, DIP3 on ON.



Switch the printer on and wait for the initialisation phase of the printer.
 Is the printer ready for use?
 Interrupt the electricity supply to the Data Manager for a short time.

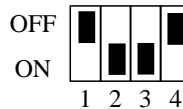
If the status LED lights up in **green**, continue with the data transfer test (Point D).
 If the status LED lights up in **red**, proceed to the test of the handshake to the printer (Point B).

B. Test of the handshake to the printer

When using a serial printer:
DIP1, DIP3 and DIP4 on OFF, DIP2 on ON.



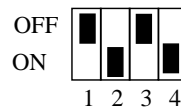
When using a parallel printer:
DIP1 and DIP4 on OFF, DIP2 and DIP3 on ON.



Switch the printer on and wait for the printer initialisation phase.
 Is the printer ready for use?
 Interrupt the electricity supply to the Data Manager for a short time.

If the status LED lights up in **green**, continue with the test of the handshake to the laboratory EDP (Point C).
 If the status LED lights up in **red**:

When using a serial printer:
DIP1 and DIP3 on OFF, DIP2 and DIP4 on ON.



Interrupt the electricity supply to the Data Manager for a short time.

If the status LED lights up in **green**, continue with the test of the handshake to the laboratory EDP (Point C).

If the status LED lights up in **red**, the printer connection cable and the printer itself must be inspected for functional capability.

C. Test of the handshake to the laboratory EDP

When using a serial printer:
DIP2, DIP3 and DIP4 on OFF, DIP1 on ON.



When using a parallel printer:
DIP2 and DIP4 on OFF, DIP1 and DIP3 on ON.



Interrupt the electricity supply to the Data Manager for a short time.

If the status LED lights up in **green**, continue with the data transfer test (Point D).
 If the status LED lights up in **red**, the connection cable to the laboratory EDP must be inspected for functional capability.

D. Data transfer test

Set the data transfer priority to the preferred selection again.

(Refer to Page 10)

Perform the measurements.



The transfer of measurement values from the Sediplus device only takes place once a reduction has been completed. Depending on the setting this can take one or two hours. The Sediplus devices are also, however, equipped with a test mode whereby a test reduction can be completed within a few minutes.

Set the test mode



The Sediplus device may not routinely be used in this mode. The laboratory EDP attendant must be informed that test data which are received during the laboratory EDP must not be evaluated!

S2000:

Switch the S2000 on with the ESC button held down.

Then press Button 3 (for performance a test reduction).

To commence the reductions place one or more test pipettes in free measuring stations and follow the instructions on the display.

After 4 minutes the measurement results will be transferred.

The transfer of these protocols (from completed but still equipped stations) may be repeated as often as wished by simultaneous pressing of the upwards arrow (▲) and the downwards arrow (▼). Confirm each with the IDENT button.

S100/S200:

With the device switched on, simultaneously press the RESET button at the back of the housing and "1" on the keyboard.

Keeping the "1" pressed down, release the RESET button.

"d" appears in the display.

Equip the device with (test) Sedivette or Monovette.

After 2 minutes the measurement results will be transferred.



Simply switch the devices off and back on to access the normal mode again.

7. Operation

No operating procedures are required during operation.

The operational readiness of the Sediplus® Data Manager can be detected by means of the two colour status LED.

LED	green	LDP, printer or both (according to DIP1/DIP2) are ready
LED	red	LDP, printer or both (according to DIP1/DIP2) are not ready



- If the last measured values at the end of a protocol page are not printed **by a needle or ink jet printer**, this is caused by the line feed of the printer. These will only become visible during the printing of further data or by triggering a manual line or page feed.
- A **laser printer** only prints out a page when it is full. In this case that means that measurement results are only visible after the printing out of several data records or by triggering a manual page feed.

8. Maintenance and service

Service address

Should you have questions or problems concerning the device, please contact the customer service department of DESAGA GmbH / SARSTEDT-GRUPPE in Wiesloch or your local SARSTEDT sales office. Remember to specify the Serial no. of the device.



DESAGA GmbH / SARSTEDT-GRUPPE

Serviceabteilung

In den Ziegelwiesen 1-7

D-69168 Wiesloch

Phone: +49 (0) 62 22 / 92 88 65

Fax.: +49 (0) 62 22 / 92 88 60



- Fill in the Contamination Questionnaire (see page 12), and ship it together with the device, a copy of the delivery note, and a short description of the problem.
- Always ship the device in the original packaging.
- The Contamination Questionnaire serves to protect our service personnel. Therefore, please fill it in carefully and completely.

Cleaning



The regulations for cleaning the device must be observed. Inattentive cleaning or non-observance of the regulations can cause malfunctions!

- Disconnect the device from the mains supply before cleaning.
- No liquid may be permitted to enter the device during cleaning.
- Clean the housing surfaces with a slightly damp cloth. A soap solution may be used. Carefully dry the device after cleaning.
- Do not use scouring agents or aggressive cleaning liquids or solutions (except alcohol) under any circumstances.
- Isopropanol may be used in case of severe soiling.



Example for a disinfectant:

The following aqueous solution can be used as a disinfectant:

25 g ethanol 96 %, 35 g 1-propanol, 0,1 g glyoxal ad 100 g aqua dest.

Apply the solution, and allow it to react for a few minutes, depending on the contamination. If necessary, repeat the application of disinfectant.

Contamination Questionnaire for Repair Orders

Dear customer,

For reasons of safety we ask you to answer all the following questions before you send your device off to DESAGA GMBH / SARSTEDT-GRUPPE Wiesloch for maintenance, repair or return.

Company: _____	Department: _____
Town/city: _____	Road: _____
Name: _____	Telephone No.: _____
Device/product: _____	SN: _____

The device is free from hazardous substances

The device came into contact with the following hazardous substances

	Class of substance	Substance description
<input type="checkbox"/>	Corrosive substances	
<input type="checkbox"/>	Highly inflammable substances	
<input type="checkbox"/>	Environmentally hazardous substances	
<input type="checkbox"/>	Toxic substances	
<input type="checkbox"/>	Substances hazardous to health	
<input type="checkbox"/>	Radioactive substances	
<input type="checkbox"/>	Biologically hazardous materials	
<input type="checkbox"/>	Other substances	

The device has been decontaminated in accordance with statutory provisions.

(Please tick appropriate boxes)

Description of the decontamination measures performed.

Datum: _____

Unterschrift: _____