



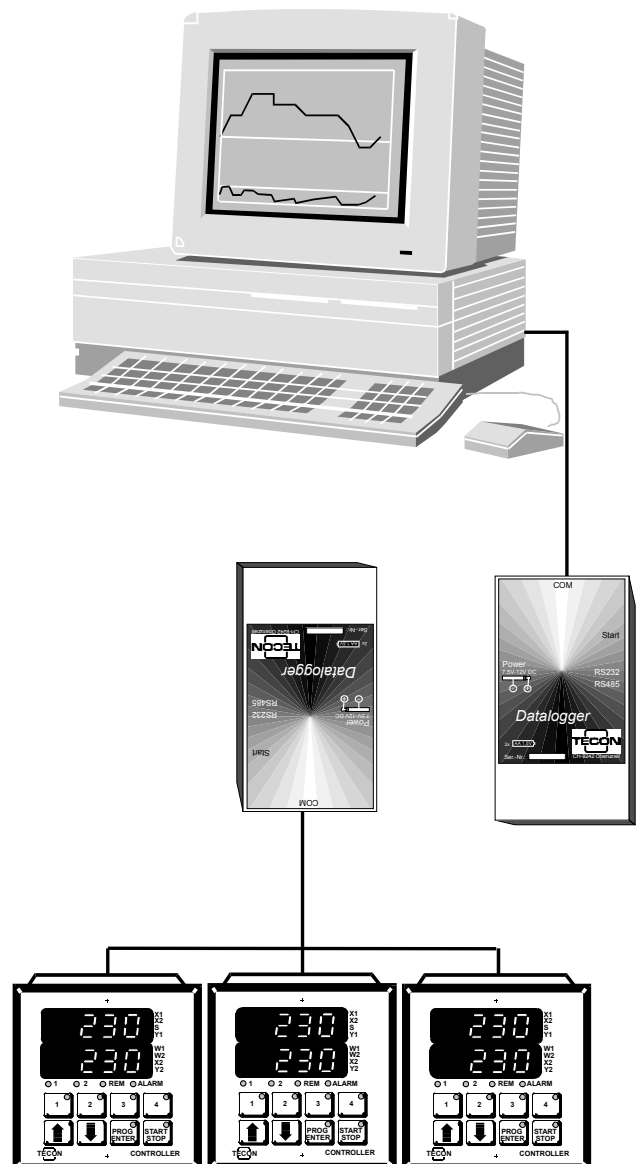
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Instruction manual

DATALOGGER TECON 197

Program 197 - 002.0



DATA LOGGER TECON 197

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1. safety regulations

1.1 Purpose of application

Purpose of the data logger TECON 197 is to record controller data on the serial interface and to carry them to a computer.

1.2 Range of application

This unit must **not** be used in explosion hazarded areas. The unit must not be exposed to rain , nor must it be used in any moist environment

The device is planned for use at temperatures between 0 and 50°C at relative humidity between 10 and 90%.

1.3 Instruction, manipulations

It is the responsibility of the user that he understands the operating instructions and that no manipulations are made on the unit which could affect its safe functioning. In particular, the unit must not be opened. Exception is the battery chamber.

2. Technical data, functions

2.1. Overview

Power supply	- 2 batteries 1,5 V seize AA (recommended: alkali manganese) - External supply 7,5 - 12 V DC 50 mA
Memory	128 kByte
Battery capacity	The capacity of the batteries suffices for approx. 40 days using batteries of alkali manganese type. The service life of the battery is reduced by recording the data. With normal interface operation, the batteries work for approx. 40'000 measurements with 1 device on the bus.
Recommendation	We recommend to use a new set of batteries for each recording of 128 Kbytes.
Serial interface	to connect the logger to the controller bus or to the computer. - Type selectable RS232 or RS485 - Baudrate 9600 - Parity odd - Databits 7 - Stopbits 1 - Handshake none
Length of RS485-bus	We recommend a bus length shorter than 10 m, without terminating resistors (extends the service life of the batteries).
Ambient temperature	0 to 50°C
Ambient humidity	10 to 90 % r.h.
Dimensions	l x h x d 128 x 65 x 24 mm
Weight	approx. 0.1 kg
Type of protection	IP 30
EMC protection	Immunity pr EN 50 082-2 Emission EN 50 081-1

3. Connections

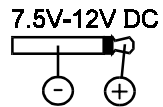
3.1 Interface RS232

2 TxD
3 RxD
5 GND

3.2 Interface RS485

2 Tx/Rx-
3 Tx/Rx+
5 GND

3.3 AC adapter



4. Use of the data logger

4.1 Installation of the software

- Use Microsoft Windows 3.1 or higher.
- Select Program Manager.
- Select EXECUTE.
- Insert the data logger floppy
- Select 'A: SETUP' (or B:SETUP).
- Click on OK or press the ENTER key.
- Follow the instructions on the screen.

4.2 System requests

minimum standards:

- PC IBM AT 386 kompatibel
- 1 serial interface
- 4 MB RAM
- 2 MB of free hard disk memory
- VGA monitor
- Microsoft Windows 3.1 or higher

4.3 Battery change

- Connect the AC adapter.
- Open battery chamber.
- Change batteries (pay attention to polarity)
- Close battery chamber.

4.4 Use with batteries

- The RS485 interface only can be operated at with the batteries.
- Do not activate the LED by software.
- Use short bus length, no terminal resistors

4.5 Use with AC adapter

- Both the RS232 and RS485 interfaces can be operated with the AC adapter.
- The LED may be used.
- The RS485 bus may be used at full specifications.

4.6 Configuration of the data logger

- Insert batteries (pay attention to polarity).
- Connect the AC adapter. Put the slide switch to RS 232.

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- Connect the data logger to the COM-port of the PC.
- Start software 'logger'.
- Establish connection with the '**Connect**' button
- Adjust the logger to your needs: Address, data to be recorded, recording interval and stop mode.
- Send the adjustments with the 'Datalogger set' button to the logger. The connection between PC and logger is cut off and the data logger is ready to use.

4.7 Recording

- Put the slide switch to RS485.
- Connect the logger to the RS485 bus of the controllers.
- Press the START button for at least 5 seconds.
- The LED signals the recordings (only the first 5, if not selected)
- Check the funktion on the controller: The 'REMOTE'-LED must flash with each recording

4.8 Alarm

- If after start the LED flashes in seconds interval, the logger does not get correct data from the controllers. No data are recorded.
- This alarm is indicated during the first recording only.

4.9 Alarm acknowledge

- Press the START-button for at least 1 second.
- Correct the error and start recording again.

4.10. Indication of data logger to PC - connection

If the LED on the logger is on, it is still in the PC connect mode. By pressing the START button during 2 seconds, you can quit this mode.

4.11. Stop recording

1. Stop if memory overflow

If you selected this mode, the recording stops when the memory is full.

2. Stop if transmission break

Disconnecting the logger from the RS485 bus stops recording.

3. Stop with key

In this mode, recording can be stopped by pressing the START button as follws:

recording interval of 5 s:	min. 5 s
recording interval of 10 or 20 s:	min. 10 s
recording interval of more than 20 s:	min. 15 s

To indicate, that recording is stopped, the LED flashes. Press the START button for 2 seconds to stop the flashing. The data logger is now ready for readout.

4.12. Evaluate recording

- Disconnect the logger from the RS485 bus.
- Put the slide switch to RS232.
- Connect AC adapter.
- Connect logger to COM-port of the PC.
- Start software 'logger'.
- Establish connection with the **'Connect'** button
- With the button **'Datalogger read'** you can copy the process data from the logger to a file in your computer.
- Select writing in **'VISITEC Format'** or **'*.TXT Format'** (depending on the further processing of the data). Follow the instructions on the screen.
To process the data with EXCEL (Microsoft), select the '.txt'-format and the proper separator.
- With the button **'Terminate connection'** you can put the logger in the standby mode.
With **'Datalogger set'** you make the logger ready for the next recording.

4.13. Reset Data logger

- If the data logger for any reason (e.g. slide switch not corresponding with bus type) does not work any more, it can be reset.
- The RESET button can only be pressed with a thin tool.

We recommend to reset the data logger before entering a new configuration

5. Memory requirements and Recording Time

Memory requirements

1 set point 2 bytes
 1 actual value 2 bytes
 1 power 1 byte
 status 1 byte

Recording time:

Recording interval	5 s	20 s	1 min	3 min	10 min	30 min
1 actual value	89h	15 days	44 days	133 d	444 d	1333 d
1 actual value, 1 set point	44 h	7 days	22 days	66 days	222 d	667 d
1 actual value, 1 set point, 1 power, status	29 h	4.9 days	14 days	44 days	148 d	444 d
2 actual values, 2 set points, 2 powers, status	16 h	64 h	8 days	24 days	80 days	242 d