User's Manual
MODEM 1000
For Remote Operation Of The EASYBUS Via Analog Telephone Nets

General
The MODEM 1000 is an industrial MODEM for the remote operation of EASYBUS systems. It is ‚tailor made' for the EASYBUS requirements to guarantee easy and fail safe operation.

Scope Of Supply
- MODEM 1000 and ext. mains adapter
- Serial connecting cable 25 pole
- TAE telephone connecting cable
- EBUW 232 (protocol converter)
- GSK 9S-9S-NM (nullmodem cable)
- Adaptor GSA 25S-9B (25 pole DSub-plug / 9 pole DSub-socket)
- User's manual

Connection and Operation

1. Connection to telephone net
Connect the telephone cable to the analog telephone socket. If there is only a ISDN connection, there has to be used a suitable ISDN terminal adaptor to connect the analog MODEM to the telephone net.

2. Connection of supply
Connect the mains adaptor to the MODEM (socket marked with ‚9..10 VDC').

3. Adjust MODEM - settings with MODKonfig software
Install the MODKonfig software to the PC first (included on the GSOFT40k CD V7.0 or higher).
Connect the serial interface cable with an unused serial interface (COM1, COM2...) of the PC.
Start MODKonfig and choose ‚Prepare MODEM for remote operation' - the MODEM settings window appears.
Select the serial interface at which the MODEM ist connected an choose ‚connect MODEM'.
After a short time (the software detects the MODEM) the label MODEM 1000 appears and the referring settings can be made.
Important: To be able to ‚call' the MODEM from another place by the software GSOFT40k and a second MODEM the 'automatic off hook function' has to be enabled. Suggested setting: after 1 ring.
If the MODEM and the connected EASYBUS should be protected against unauthorized access, enable the password function. The pre set password is: **modem 1000**.
When entering a new password keep in mind, that the password has to contain of 6 to 12 characters.
Attention: Don't forget the password!
When the settings are finished choose 'send configuration to MODEM', after a a few seconds the settings are permanently stored in the MODEM.

4. Preparing of the EASYBUS components
The EASYBUS – addresses of the connected dataloggers have to be assigned in increasing order, beginning from 1 (1,2,3,4...).
When using an EB2000-MC level converter this is done automatically within the system initialisation. When using other level converters the software MODKonfig can assign the addresses automatically: Start MODKonfig and choose ‚Prepare EASYBUS for remote operation'. Connect the level converter with the readily connected EASYBUS and select the refering serial interface in the software. Then click ‚check EASYBUS' – all the rest is done automatically, follow the messages of the software,if there are any, the EASYBUS will be ready after short while.

5. Connect MODEM to the EASYBUS
Connect the MODEM via the adaptor GSA 25S-9B (in scope of supply), the nullmodem–cable (in scope of supply, do not use the ‚ordinary' serial interface cable!) with the EBUW232. Connect the EASYBUS-level converter via the connection cable to the EBUW232.
- EBW1, EBW64, EBW240: standard interface cable (in scope of supply of the EBW...) or directly to the EBUW232
- EB2000 MC: GRS 01/9 (accessory)

MODEM 1000 → GSA 25S-9B → nullmodem cable → EBUW 232 → (connection cable →) level converter

The battery driven EBW2 is handled as follows: If it should be switched on just in case of a active telephone connection, the special nullmodem cable GRS02/9 has to be used (special accessory). If the standard nullmodem cable is used, the EBW2 is always switched on, the battery supply has to be designed to suit the relatively high power consumption then.

Specification

Supply	9..10V DC, mains adaptor 230V AC (in scope of supply)
RS232-Interface	DSub-25 socket, ATTENTION: For the connection to the EASYBUS level converter a nullmodem cable has to be used (in scope of supply), type **GSK 9S-9S-NM**
Housing	ca. 115*115*35 mm
Ambient temperature	0..55°C
Ambient humidity	0..95 %, not condensating
Approvals	BZT & CE