GSM/GPRS Modem for remote meter reading DM600

Figure: DM600 with outdoor antenna

The DM600 modem makes remote readings of meters with serial interfaces possible via GSM.

The meter data (energy register, load profiles) will be transmitted in transparent mode via different interfaces. Using this modem other data collectors can be read out too. An internal load profile is available, derived from pulse inputs. An additional power supply for devices with battery is available.

Features

- Wide range power supply 100 -230 V
- Applicable in GSM networks with 900 MHz and 1800 MHz
- Status of operational mode through LED:
  - Status : Operating / Error / SIM or PIN-Error
  - Communication : Serial interfaces
  - GSM Status : Field strength / Online
- Serial Interfaces:
  - **CL1**, EN62056-21, ModeC, up to 19,2 kBit/s
  - **RS232** (Rx, Tx, DTR, GND) 19,2 kBit/s
  - **RS485** max. 32 Transceiver, 19,2 kBit/s
- **DM620 M-Bus** (optional, instead of RS485), max. 25 devices, 9,6kBit/s
- **DM630** with auxiliary power supply (optional, instead of RS485)
- Transparent readout of the meter data
- Password protection
- Call back function
- Internal clock with back up
- 3 Pulse inputs with statistic load profile, readout acc. to VDEW with EDIS identifier
- Programming of the modem parameters via GSM or local via RS232
- Remote Upgrade of the software via GSM or local via RS232

GPRS

- Leased line or dialing connection possible, e.g. to read out the load profile of the meter every minute
- Transmission of data with TCP/IP packages
- Independent link connection
- Supervision of link connection
- Authentication and data encryption
- Existing AMR system could be used
- Cost efficient charging depending on data volume

Housing

The housing of the modem is designed according to DIN 43861-2 (to be mounted onto a meter board or terminal cover).

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Technical Data

Modifications or deviations are reserved R 1.4

Power Supply:	Voltage range	100 - 230VAC, 50Hz, 100-230VDC
	Power consumption	approx. 10 VA active, ca. 6 VA passiv
GSM-Interface:	GSM	GSM Rec. 7.02 asynchron, Non-Transparent, 9,6 kbit/s, Modem type V.32, RLP according to GSM Rec. 4.22, ISDN-type V.110, small SIM
	GSM-network	GSM-900 MHz or GSM-1800 MHz, 2 Watt transmit power
	GPRS	Option : GPRS: 2 Uplinks /up to 4 Downlinks, Class 10, Coding CS-1 – 4
	Antenna types	- Exterior antenna (mounting bracket) cable 5m - Interior antenna (mounting clip) cable 1,5m - Magnet holder antenna cable 2,5m Remotely installable, FME connector
Interfaces:	Meter connection	**CL1** 20 mA according to EN 62056-21 Mode C up to 19,2 kbit/s **RS232** up to 19,2 kBit/s, fullduplex, Mode C, (Rx, Tx, DTR, GND) **RS485** up to 32 Transceiver,2-wire, Mode C, 19,2 kBit/s, 1000m cable length
	Pulse input 1-3	Active S0 Input acc. EN 62053-31-B (potential free)
	DM620	**M-Bus** (instead of RS485) acc. EN1434-3 up to 9.600 kBit/s, half duplex, 25 devices
	DM630	**Auxiliary** power supply 5/9/12/24VDC 12V/100mA
Load profile memory:	Statistical Load profile	Flash-Memory (power outage proof)
Internal Clock:	Back-up time	> 48 Hours
Climatic conditions:	Temperature range	-20° ... +50°C
	Humidity range	0 - 95 % relative, non condensing
Protection type:		IP 51
Dimensions:	Terminal cover- or meter board	H=180mm, W=105mm, T=70mm

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