

GSM/GPRS Modem for remote meter reading DM430

The DM430 modem makes remote readings of meters with serial interfaces possible via GSM/GPRS.

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 additional power supply for devices with battery is available.

Features

- Wide range power supply 100-230 VAC / DC
- Applicable in GSM networks with 900 / 1800 MHz
- Status of operational mode through LED:
 - Power : Operating
 - GSM : Network status
 - GSM Status : Field strength / Online / PIN error
- Serial Interfaces:
 - **CL1** acc. to EN62056-21 up to 19,2 kBit/s
 - **RS232** up to 19,2kBit/s
 - **RS485** max. 32 Transceiver, 19,2 kBit/s
 - The interfaces are working in parallel. The baudrate and data format are the same for all interfaces.
- Auxiliary power supply
- Password protection
- Transparent readout of the meter data
- Programming locally via DIP-switches
- Programming of functions via RS232 and GSM
- Upgrade of the firmware locally via RS232 interface
- AT command Mode

GPRS

- data read-out via IP-ready AMR System
- GPRS operation with fix IP-address over APN
- Transparent data transfer to the meter
- TCP/IP package oriented data transmission to the AMR system
- Authentication and data encryption
- Cost efficient charging depending on the transmitted data volume
- As a substitute (with failure of the GPRS connection) or additionally, the DM430 can also provide the communication via the GSM network by CSD (CircuitSwitchedData-calls)

Housing

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



Figure: Modem DM430 with antenna for interior use

Power Supply:	Voltage range	100 - 230V AC, 50Hz, 100-230V DC
	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 with or without PIN
	GSM / GPRS	GSM/GPRS module with GCF approval
	GSM networks	GSM-900 MHz or GSM-1800 MHz, 2 Watt transmission power
	Antenna types	- Exterior antenna (mounting bracket) cable 5m - Interior antenna (mounting clip) cable 1,5m - Magnet holder antenna cable 2,5m 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, (Rx, Tx, GND, DTR) via RJ-45 connector
		RS485 up to 32 Transceiver, 2-wire, 19,2 Bit/s, 1000m cable length
		fixed baudrate or Mode C Dataformat : 8N1 or 7E1
Auxiliary power supply		9 VDC / 100 mA
Climatic conditions:	Operating temperature	-10° ... +55°C
	Storage temperatur	-20° ... +80°C
	Humidity range	0 - 95 % relativ, non condensing
Protection type:		IP 51
Dimensions:	Terminal cover- or meter board	H=180mm, W=105mm, D=70mm

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