

Modules



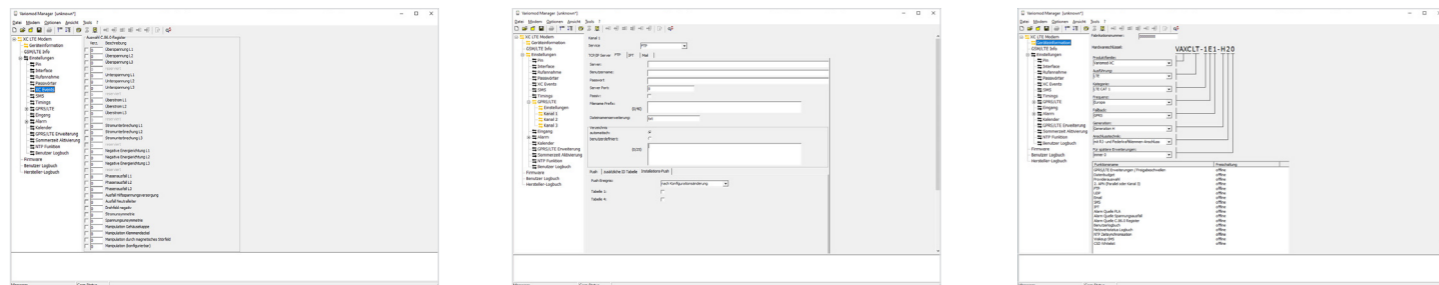
The VARIOMOD modem module is available as an Ethernet and LTE module. Due to the option of transparent data reading, the modem modules are suitable for all common control centres.

The modem modules are equipped with an additional RS485 interface for connecting further devices.

COMMUNICATION MODULES

- FOR INSTALLATION IN THE LZQJ-SGM / LZQJ-XC / DMTZ-XC
- SOLUTION FOR REMOTE METER READING AND DATA TRANSFER
- LARGE FUNCTIONAL SCOPE AND EASY INSTALLATION

CONFIGURATION SOFTWARE:



VARIOMOD modules

- Transparent data reading, thus suitable for all common control centres
- Supports national roaming
- IP telemetry as per DIN 43463-4
- Extensive push functions
- Password protection (readout and/or configuration)
- Meter, mobile network and data volume monitoring
- Additional RS485 interface
- Can be replaced while meter is in operation
- Remote update/configuration possible
- From generation K, ideal for DLMS communication in conjunction with the LZQJ-SGM

ACCESSORIES/ANTENNAS:



Multiband antenna

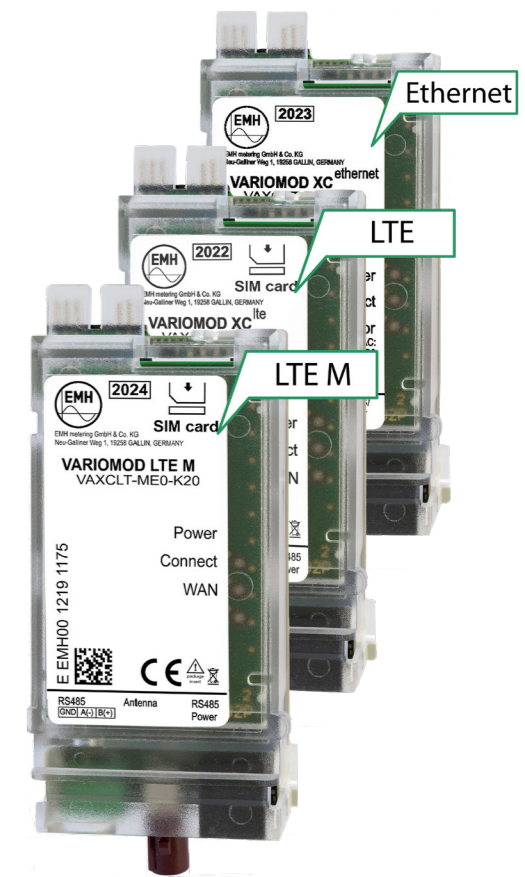


Magnetic base antenna

FAKRA antenna cable extension 5 m



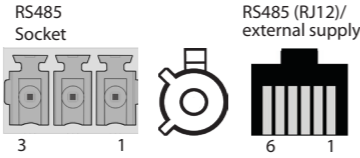

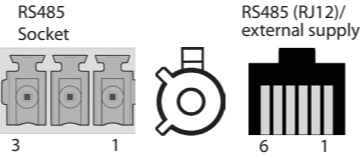

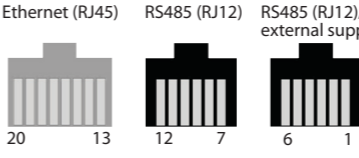

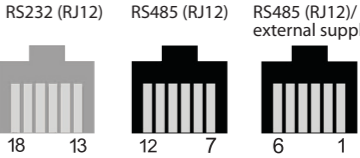

Adapter FAKRA FME and Adapter FAKRA SMA



Interface module XC

- Interface extension for the LZQJ-SGM / LZQJ-XC / DMTZ-XC
- RS485 and RS232 interface
- Can be replaced while meter is in operation



Options		LTE M	LTE	Ethernet	Interface module
		VARIOMOD LTE M	VARIOMOD XC ^{lte}	VARIOMOD XC ^{ethernet}	Interface module XC
Supply		from the meter (optionally with external wall power supply)	from the meter (optionally with external wall power supply)	from the meter (optionally with external wall power supply)	from the meter (optionally with external wall power supply)
Displays		3 LEDs (status, connection quality, network type)	3 LEDs (status, connection quality, network type)	3 LEDs (status information)	—
Data interfaces	Electrical data interface Data protocols Transfer rates	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 to 19,200 baud	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 to 19,200 baud	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 to 19,200 baud	RS485 and RS232 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 to 19,200 baud
Security/EMC	Security Interference resistance Emitted interference	EN 62368-1, EN 62311 EN 301489-1, EN 301489-52 EN 301489-1, EN 301489-52	EN 62368-1, EN 62311 EN 301489-1, EN 301489-52 EN 301489-1, EN 301489-52	EN 62368-1 EN 55035 EN 55032	EN 62368-1 EN 55035 EN 55032
Temperature range	Defined operating range Limit range for operation, storage and transport	-25 °C to +55 °C -40 °C to +80 °C	-25 °C to +55 °C -40 °C to +80 °C	-25 °C to +55 °C -40 °C to +80 °C	-25 °C to +55 °C -40 °C to +80 °C
Humidity		max. 95%, non-condensing	max. 95%, non-condensing	max. 95%, non-condensing	max. 95%, non-condensing
Housing	Dimensions Assembly Degree of protection of housing	approx. 45 x 105/115 x 27 (W x H x D) mm Plug-in unit for module compartment IP 20	approx. 45 x 105/115 x 27 (W x H x D) mm Plug-in unit for module compartment IP 20	approx. 45 x 105 x 27 (W x H x D) mm Plug-in unit for module compartment IP 20	approx. 45 x 105 x 27 (W x H x D) mm Plug-in unit for module compartment IP 20
Weight		approx. 90 g	approx. 90 g	approx. 65 g	approx. 60 g
Connections	RS485 RS232 Antenna connection Network External supply RS485 with spring-loaded terminals (Accessories)	1 x RJ12 modular socket (6P6C), 1 x socket for 1.5 mm ² spring-loaded terminal, looped through — FAKRA plug — 12–18 V DC RS485 Socket RS485 (RJ12)/ external supply  RS485 socket with spring-loaded terminals 	1 x RJ12 modular socket (6P6C), 1 x socket for 1.5 mm ² spring-loaded terminal, looped through — FAKRA plug — 12–18 V DC RS485 Socket RS485 (RJ12)/ external supply  RS485 socket with spring-loaded terminals 	2 x RJ12 modular sockets (6P6C), looped through — — Ethernet: RJ45 modular socket (8P8C) 12–18 V DC Ethernet (RJ45) RS485 (RJ12) RS485 (RJ12)/ external supply  Ethernet (RJ45) RS485 	2 x RJ12 modular sockets (6P6C), looped through RJ12 modular socket (6P6C) — — 12–18 V DC RS232 (RJ12) RS485 (RJ12) RS485 (RJ12)/ external supply  RS232 and RS485 
Functions	Password protection Configuration + firmware update Operational reliability	Two independent password levels: Configuration and transparent mode via LTE Cat. M or locally via data interfaces (module or meter) Installed watchdog, automatic restart (configurable)	Two independent password levels: Configuration and transparent mode via GPRS/LTE or locally via data interfaces (module or meter) Installed watchdog, automatic restart (configurable)	Two independent password levels: Configuration and transparent mode via internet or locally via data interfaces (module or meter) Installed watchdog, automatic restart (configurable)	— — —
GSM	Band Transmission power Connection protocols Compression Error correction	— — — — —	900 / 1800 MHz max. 2 W at 900 MHz, max. 1 W at 1800 MHz V.21, V.22, V.23, V.22bis V.26ter, V.32, V.34, V.110 V.42bis MNP2	— — — — —	— — — — —
GPRS	Class	—	Class 10 up to 2 uplinks, up to 4 downlinks; max. 5 links	—	—
LTE	Type Band	LTE Cat. M (0.5 Mbit/s downlink, 1.1 Mbit/s uplink) 700 (B28) / 800 (B20) / 900 (B8) / 1800 (B3) / 2100 (B1) MHz	LTE Cat.1 (10 Mbit/s downlink, 5 Mbit/s uplink) 800 (B20) / 900 (B8) / 1800 (B3) MHz	— —	— —
Network	Ethernet IP address assignment Data transfer	— To be generated automatically by the provider (PPP) TCP/IP server	— To be generated automatically by the provider (PPP) TCP/IP server, FTP, IPT, UDP, SMS	IEEE 802.3 10BaseT/100BaseTxAutonegotiation, Auto-MDI(X) DHCP or fixed IP address TCP/IP server, FTP, IPT, SMTP (mail)	— — —
Software		VARIOMOD MANAGER from version 3.0	VARIOMOD MANAGER (all versions)	VARIOMOD MANAGER (all versions)	—
Scope of delivery	Documentation	Operating and installation instructions	Operating and installation instructions	Operating and installation instructions	Operating and installation instructions
Accessories		Magnetic base antenna, 2.5 m cable length, multiband antenna, 3 m cable length, socket for 1.5 mm ² (RS485), adapters: FAKRA-SME, FAKRA-SMA, RJ12 connecting cable, RJ12 cable with open end	Magnetic base antenna, 2.5 m cable length, multiband antenna, 3 m cable length, socket for 1.5 mm ² (RS485), adapters: FAKRA-SME, FAKRA-SMA, RJ12 connecting cable, RJ12 cable with open end	RJ12 connecting cable, RJ12 cable with open end	RJ12 connecting cable, RJ12 cable with open end
Type code		VAXC LT-M E0-K20	VAXC LT 1E1-I20	VAXC ET -E00 / -E10	IMXCRS-F00 / -F10