The VARIOMOD XC modem module is available as a GPRS, Ethernet and LTE module.

Due to the option of transparent data reading, the modem modules are suitable for all common control centres.

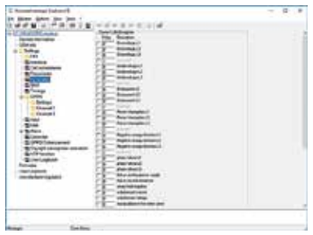
The modem modules are equipped with an additional RS485 interface for connecting further devices.

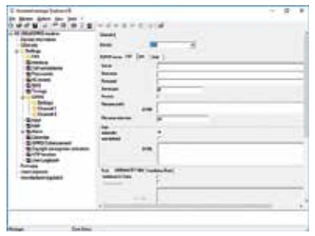
Modules

COMMUNICATION MODULES

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

CONFIGURATION SOFTWARE:





ACCESSORIES/ANTENNAS:

Multiband antenna

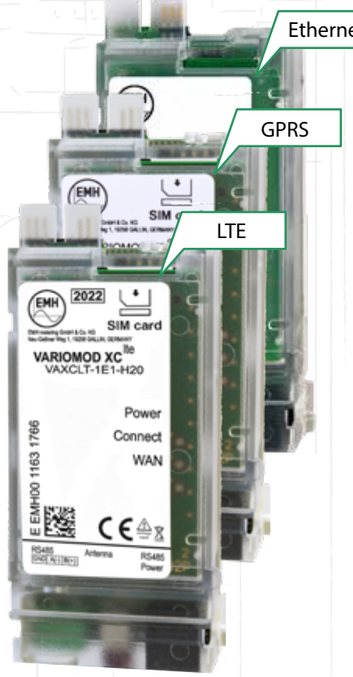
Magnetic base antenna

Adapter FAKRA FME

New antenna interface (FAKRA)

VARIOMOD XC

- 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



Interface module XC

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

EMH metering GmbH & Co. KG · Neu-Galliner Weg 1 · 19258 Gallin
Tel: +49 38851 326-0 · Fax: +49 38851 326-1129
info@emh-metering.com · www.emh-metering.com

EN VARIOMODXC-DAB-E-2.02
Issue date: 2022-02-22

Options		LTE	GPRS	Ethernet	Interface module
		VARIOMOD XC lte	VARIOMOD XC gprs	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	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 62368-1:2014/AC:2015, EN 62311:2008 EN 301489-1, EN 301489-52 EN 301489-1, EN 301489-52	EN 62368-1:2014/AC:2015, EN 62311:2008 EN 301489-1, EN 301489-7 EN 301489-1, EN 301489-7	EN 60950-1 EN 55024 EN 55032	EN 60950-1 EN 55024 EN 55032
Temperature range	Defined operating range Limit range for operation, storage and transport	–20 °C…+55 °C –40 °C…+80 °C	–20 °C…+55 °C –40 °C…+80 °C	–25 °C…+55 °C –40 °C…+80 °C	–25 °C…+55 °C –40 °C…+80 °C
Humidity		Maximum 95%, non-condensing	Maximum 95%, non-condensing	Maximum 95%, non-condensing	Maximum 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 of the LZQJ-XC IP 20	approx. 45 x 105/115 x 27 (W x H x D) mm Plug-in unit for module compartment of the LZQJ-XC IP 20	approx. 45 x 105 x 27 (W x H x D) mm Plug-in unit for module compartment of the LZQJ-XC IP 20	approx. 45 x 105 x 27 (W x H x D) mm Plug-in unit for module compartment of the LZQJ-XC IP 20
Weight		Approx. 90 g	Approx. 75 g	Approx. 65 g	Approx. 60 g
Connections	RS485 RS232 Telephone network Antenna connection Network External supply RS485 with spring-loaded terminals (Accessory)	1 x RJ12 modular socket (6P6C), 1 x socket for 1.5 mm² spring-loaded terminal, looped through — — FAKRA plug — 12 – 18 V DC RS485 Socket RS485 (RJ12)/ external supply 3 1 6 1 RS485 socket with spring-loaded terminals	1 x RJ12 modular socket (6P6C), 1 x socket for 1.5 mm² spring-loaded terminal, looped through — — FAKRA plug — 12 – 18 V DC RS485 Socket RS485 (RJ12)/ external supply 3 1 6 1 RS485 socket with spring-loaded terminals	2x RJ12 modular sockets (6P6C), looped through — — — Ethernet: RJ45 modular socket (8P8C) 12 – 18 V DC Ethernet (RJ45) RS485 (RJ12) RS485 (RJ12)/ external supply 20 13 12 7 6 1 Ethernet (RJ45) RS485 12 5 4 1	2x RJ12 modular sockets (6P6C), looped through RJ12 modular socket (6P6C) — — — 12 – 18 V DC RS232 (RJ12) RS485 (RJ12) RS485 (RJ12)/ external supply 18 13 12 7 6 1 RS232 and RS485 7 1
Functions	Call acceptance Password protection Configuration + firmware update Operational reliability	— 2 independent password levels: configuration and transparent mode via GPRS/LTE or locally via electrical data interfaces installed watchdog, automatic restart (configurable)	— 2 independent password levels: configuration and transparent mode via GPRS or locally via electrical data interfaces installed watchdog, automatic restart (configurable)	— 2 independent password levels: configuration and transparent mode Via Ethernet or locally via electrical data interfaces installed watchdog, automatic restart (configurable)	— — — —
GSM	Band Transmission power Connection protocols Compression Error correction	900 (B8) / 1800 (B3) 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	Quadband 850 / 900 / 1800 / 1900 MHz max. 2 W at 850 / 900 MHz max. 1 W at 1800 / 1900 MHz — — —	— — — — —	— — — — —
GPRS	Class	Class 10 up to 2 uplinks, up to 4 downlinks; max. 5 links	Class 10 up to 2 uplinks, up to 4 downlinks; max. 5 links	—	—
LTE	Type Band	LTE Cat.1 (10 Mbit/s Down-, 5Mbit/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, FTP, IPT, UDP, SMS	— to be generated automatically by the provider (PPP) TCP/IP server, FTP, IPT, UDP, SMS	IEEE 802.3 10BaseT/100BaseTx Autonegotiation, Auto-MDI(X) DHCP or fixed IP address TCP/IP server, FTP, IPT, SMTP (mail)	— — —
Scope of delivery	Software Documentation	Variomod Manager Operating and installation instructions	Variomod Manager Operating and installation instructions	Variomod Manager 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 mm² (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 mm² (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
Device type		Only valid for LTE: VAXC LT -1E1-I20	Only valid for GPRS generation H: VAXC GP -KWO-H20	Only valid for Ethernet: VAXC ET -E10	Only valid for interface module: IMXCRS-F00

Subject to technical changes.