# Modules

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

Across the possibility of transparent data reading, the modem modules are suitable for all common control centers.

The modem modules are equipped with an additional RS485 interface to connect more devices.

COMMUNICATION MODULES

- FOR INSTALLATION IN THE DMTZ-XC / LZQJ-XC
- SOLUTION FOR REMOTE METER READING UND DATA TRANSMISSION
- HIGH RANGE OF FUNCTIONS AND EASY CONFIGURATION

CONFIGURATION SOFTWARE:

VAXC GP - K W 0 - H 0 0
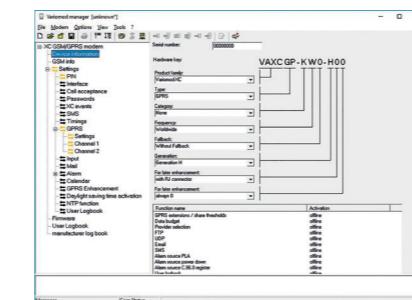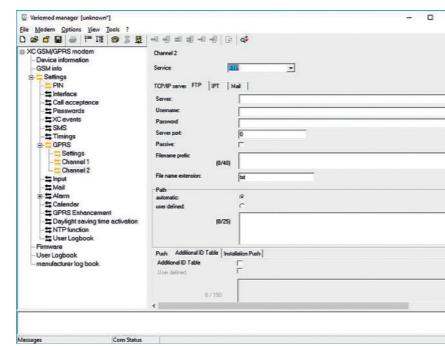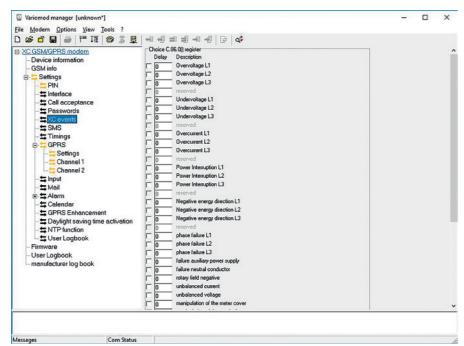
ACCESSORIES/ANTENNAS:

Multiband antenna   Magnetic base antenna   FAKRA FME-plug

VARIOMOD XC

- Transparent data readout, suitable for all common contol centres
- Supports national roaming
- IP-Telemetrie in accordance with DIN 43463-4
- Extensive push funktions
- Password protection (readout and/or remote configuration)
- Meter-, mobile network- and data volume monitoring
- Additional RS485 interface
- Interchangeable in meter operation
- Remote update and configuration possible

New antenna interface (FAKRA)

Ethernet
GPRS
LTE

SIM card

VARIOMOD XC lte
VAXCLT-1E1-H20

Power
Connect
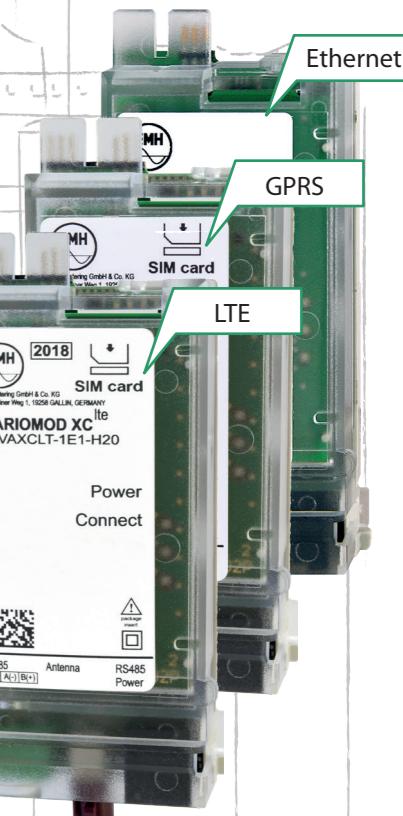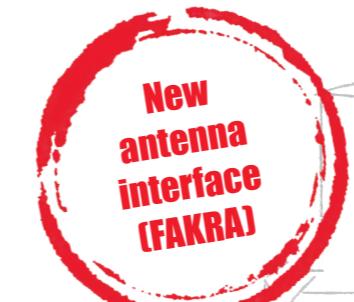
Interface Modul XC

- Interface extension for the LZQJ-XC
- RS485- and RS232 interface
- Interchangeable in meter operation

Interface Module XC
IMXCRS-E00

RS485
RS232

DE VARIOMODXC-DAB-E-2.00
Stand: 30.01.2019

Variants		GPRS/LTE	GPRS	Ethernet	Analog	Interface Modul
		VARIOMOD XC ^{lte}	VARIOMOD XC^{gprs}	VARIOMOD XC^{ethernet}	VARIOMOD XC^{analog}	Interface Module XC
Supply		from the LZQJ-XC (optionally with external plug-in power supply)	from the LZQJ-XC (optionally with external plug-in power supply)	from the LZQJ-XC (optionally with external plug-in power supply)	from the LZQJ-XC (optionally with external plug-in power supply)	from the LZQJ-XC (optionally with external plug-in power supply)
Displays		3 LEDs	3 LEDs	3 LEDs	3 LEDs	---
Data interfaces	electrical data interface, data protocols, transmission rates	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 up to 19200 baud	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 up to 19200 baud	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 up to 19200 baud	RS485 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 up to 19200 baud	RS485 and RS232 IEC 62056-21 (7E1), DLMS (8N1), Mode C, Mode E, transparent 300 up to 19200 baud
Safety/EMC	safety, noise immunity, radio disturbance	EN 301489-1, EN 301489-52 EN 301489-1, EN 301489-52	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	EN 60950-1 EN 55024 EN 55032
Temperature range	specified 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	-25°C...+55°C -40°C...+80°C
Relative humidity		max. 95%, non-condensing	max. 95%, non-condensing	max. 95%, non-condensing	max. 95%, non-condensing	max. 95%, non-condensing
Housing	dimensions, mounting, degree of protection	approx. 45 x 105/115 x 27 (B x H x T) mm plug-in into module compartment of LZQJ-XC IP 20	approx. 45 x 105/115 x 27 (B x H x T) mm plug-in into module compartment of LZQJ-XC IP 20	approx. 45 x 105 x 27 (B x H x T) mm plug-in into module compartment of LZQJ-XC IP 20	approx. 45 x 105 x 27 (B x H x T) mm plug-in into module compartment of LZQJ-XC IP 20	approx. 45 x 105 x 27 (B x H x T) mm plug-in into module compartment of LZQJ-XC IP 20
Weight		approx. 90 g	approx. 75 g	approx. 65 g	approx. 60 g	approx. 60 g
Terminals	RS485, RS232, telephone connection, antenna connection, network connection, external supply unit	1 x RJ12 modular sockets (6P6C), 1 x socket for 1,5 mm² spring terminal, looped trough --- FAKRA-plug --- 12 - 18 V DC	1 x RJ12 modular sockets (6P6C), 1 x socket for 1,5 mm² spring terminal, looped trough --- FAKRA-plug --- 12 - 18 V DC	2x RJ12 modular sockets (6P6C), looped trough --- --- --- Ethernet: RJ45 modular socket (8P8C) 12 - 18 V DC	2x RJ12 modular sockets (6P6C), looped trough --- PSTN: RJ12 modular socket (6P6C) --- --- 12 - 18 V DC	2x RJ12 modular sockets (6P6C), looped trough RJ12 modular socket (6P6C) --- --- --- 12 - 18 V DC
	RS485 with spring terminal block (accessories)	RS485 socket with spring terminals	RS485 socket with spring terminals	Ethernet (RJ45) / RS485	PSTN (RJ12) / RS485	RS232 and RS485
Functions	call acceptance, password protection, configuration + firmware update, operation safety	via time slots and white list 1...15 radio call sign (configurable) 2 independent password levels: configuration and transparent mode via GSM/GPRS/LTE or locally via electrical data interfaces integrated watchdog, automatic reset (configurable)	--- 2 independent password levels: configuration and transparent mode via GPRS or locally via electrical data interfaces integrated watchdog, automatic reset (configurable)	--- 2 independent password levels: configuration and transparent mode via Ethernet or locally via electrical data interfaces integrated watchdog, automatic reset (configurable)	via time slots 1...15 radio call sign (configurable) 2 independent password levels: configuration and transparent mode via telephone network or locally via electrical data interfaces integrated watchdog, automatic reset (configurable)	--- --- --- ---
GSM	frequency band (channel), transmission power, connection protocol, compression, error correction	900 (B8) / 1800 (B3) MHz max. 2 W with 900 MHz max. 1 W with 1800 MHz V.21, V.22, V.23, V.22 up to V.26ter, V.32, V.34, V.110 V.42 up to MNP2	quad band 850 / 900 / 1800 / 1900 MHz max. 2 W with 850 / 900 MHz max. 1 W with 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, frequency band (channel)	LTE Cat.1 (10 Mbit/s down-, 5Mbit/s uplink) 800 (B20) / 900 (B8) / 1800 (B3) MHz	--- ---	--- ---	--- ---	--- ---
Network	Ethernet, IP address allocation mode, protocol	--- to be automatically generated by the provider (PPP) TCP/IP Server, FTP, IPT, UDP, SMS	--- to be automatically generated by the provider (PPP) TCP/IP Server, FTP, IPT, UDP, SMS	IEEE 802.3 10BaseT/100BaseTx autonegotiation, Auto-MDI(X) DHCP or fixed IP-adress TCP/IP Server, FTP, IPT, SMTP (Mail)	--- --- ---	--- --- ---
Scope of delivery	software, documents	Variomod Manager Instructions for use	Variomod Manager Instructions for use	Variomod Manager Instructions for use	Variomod Manager Instructions for use	Instructions for use
Accessory		multi band antenna 3m cable length, plug for 1,5 mm² (RS485), adapter: FAKRA-FME, FAKRA-SMA, RJ12 connection cable, RJ12 cable with open ended cable	magnetic base antenna 2,5 m cable length, multi band antenna 3m cable lenght, plug for 1,5 mm² (RS485), adapter: FAKRA-FME, FAKRA-SMA, RJ12 connection cable, RJ12 cable with open ended cable	RJ12 connection cable, RJ12 cable with open ended cable	TAE-N plug 3 m cable length, RJ12 connection cable, RJ12 cable with open ended cable	RJ12 connection cable, RJ12 cable with open ended cable
Device type		only valid for LTE: VAXC LT -1E1-H20	only valid for GPRS generation H: VAXC GP -KWO- H 20	only valid for ethernet: VAXC ET -E10	only valid for analog: VAXC AN -E00	only valid for interface module: IMXCRS-E00