Protocol converter FTC470XET

to interface the BMS bus with TCP IP via Ethernet
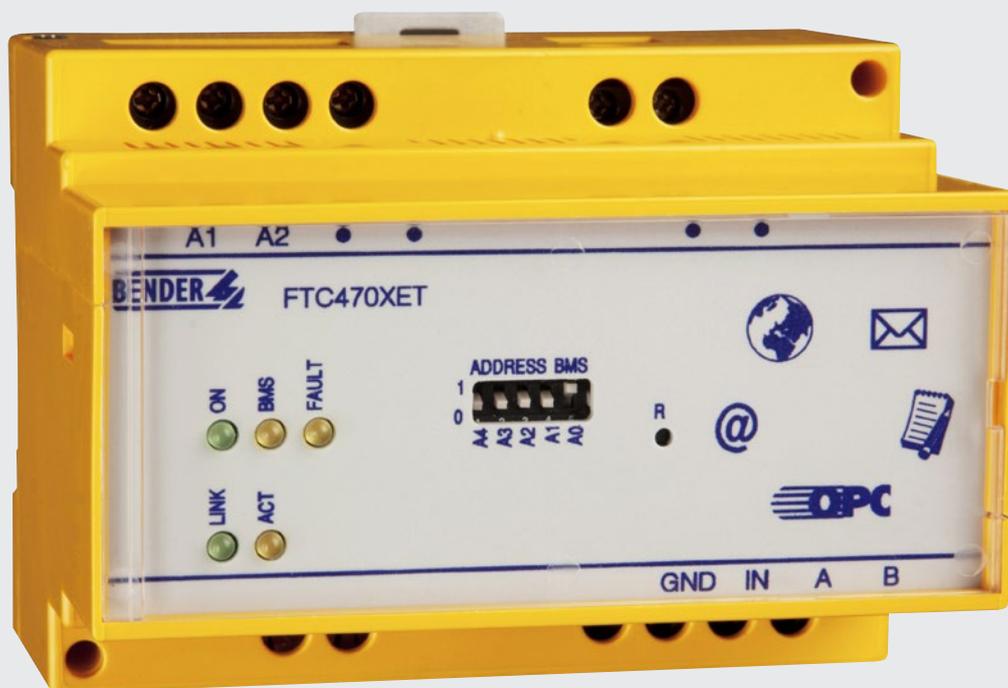
Protocol converter FTC470XET

**Protocol converter to interface
the BMS bus with TCP IP via Ethernet**

FTC470XET

Product description

The protocol converter FTC470XET is designed to be used as Ethernet gateway with web server. The FTC470XET converts data from the BMS bus into TCP/IP protocol (Ethernet). In this way, data from BMS systems can be displayed on a personal computer via a web browser. Additional software need not to be installed.

Application

- Conversion of BMS data into TCP/IP protocol (Ethernet)
- Querying and setting Bender devices with communication possibilities, such as RCMS, EDS and MEDICS® systems
- Data transmission to building services management systems and visualisation systems via an integrated OPC interface.

Functions

The protocol converter FTC470XET can be integrated into existing EDP systems like a personal computer. After entering an IP address and connection to the network and to a BMS system, a standard web browser (e.g. Internet Explorer, Netscape Navigator) of a personal computer allows access to the entire data of a BMS system. In this way, all important measuring data of the system are directly available. The parameterisation of the Bender systems is protected by a password.

Approvals
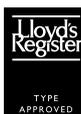
## Device features

- Display of BMS data via standard web browser
- Fast, simple parameterisation of Bender system settings in a central location
- Display of current operating and alarm messages and measured values
- Detailed information at a glance
- Display of historical data
- Useful data logger function
- OPC interface for communication with higher-level systems (building management systems or visualisation software)
- Easy installation and commissioning
- E-mail notification in case of alarm and system faults
- Remote maintenance and remote diagnosis per LAN, WAN or Internet
- Independent of hard and software

Operating elements
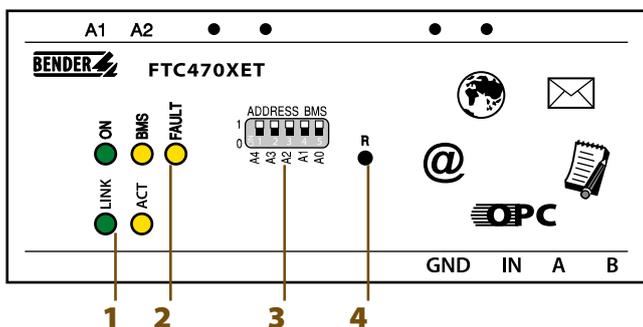
1 - Ethernet status indication "LINK"

2 - BMS bus status indication "FAULT"

3 - DIP switches for binary BMS bus address setting: 1…30

4 - Reset button "R"

Wiring diagram
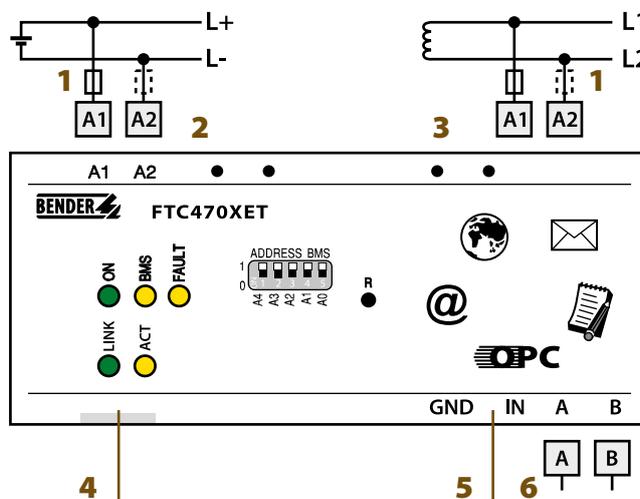
1 - U_S see ordering information, 6 A fuse recommended

2 - System U_S = DC 85…276 V

3 - System U_S = AC 85…276 V

4 - Ethernet connection RJ45

5 - Digital input to restore factory settings

6 - BMS bus connection

Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulation voltage	AC 250 V
Rated impulse withstand voltage/pollution degree	4 kV/3

Supply voltage

Supply voltage U_S	see ordering information
Frequency range U_S	AC 50…400 Hz/DC
Power consumption	≤ 12 VA

Interfaces

BMS

Interface/protocol	RS-485/BMS (internal)
Baud rate	9.6 kbit/s
Cable length	≤ 1200 m
Recommended cable (shielded, shield connected to PE on one side)	min. J-Y(St)Y 2x0.6
Modus	Master/Slave
Connection	terminals A/B
Terminating resistor	120 Ω (0.25 W)
Device address, BMS bus	DIP switch 1…30
Indication LEDs	ON/FAULT/BMS
Factory setting, device address	1

Ethernet

Interface/protocol	Ethernet 10-base-T/TCP/IP
Connection	RJ45
Baud rate	10 Mbit/s
Alarm LEDs	Link/Act

Environment/EMC

EMC immunity	EN 61000-6-2
EMC emission	EN 61000-6-4
Classification of climatic conditions acc. to IEC 60721	
Stationary use	3K5
Transport	2K3
Long-time storage	1K4
Operating temperature	-10…+55 ℃
Classification of mechanical conditions acc. to IEC 60721	
Stationary use	3M4
Transport	2M2
Long-time storage	1M3

Connection

|	
Connection	screw-type terminals
Connection properties	
rigid/flexible/conductor sizes	0.2…4/0.2…2.5 mm^2 (AWG 22…12)
flexible with ferrule, without/with plastic sleeve	0.25…2 mm^2

Other

Operating mode	continuous operation
Mounting	any position
Stripping length	8 mm
Tightening torque	0.5 Nm
Degree of protection, internal components (IEC 60529)	IP30
Degree of protection, terminals (IEC 60529)	IP20
Type of enclosure/dimension diagram	X470
Screw mounting	2 x M4
DIN rail mounting acc. to	IEC 60715
Flammability class	UL94 V-0
Operating manual	TGH1375
Weight	≤ 400 g

Ordering information

Supply voltage U_S	Type	Art. No.
AC /DC 85…276 V[1]	FTC470XET	B 9506 1001

[1] Absolute value

Dimension diagram X470

Dimensions in mm

ø 4,3 screw mounting
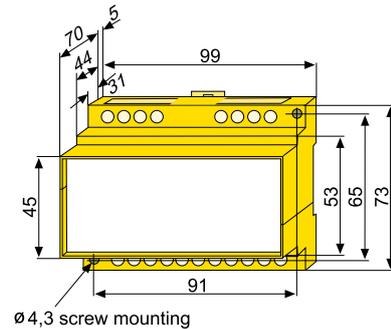
Visualisation of BMS data

FTC470XET display: currently measured values of a BMS device
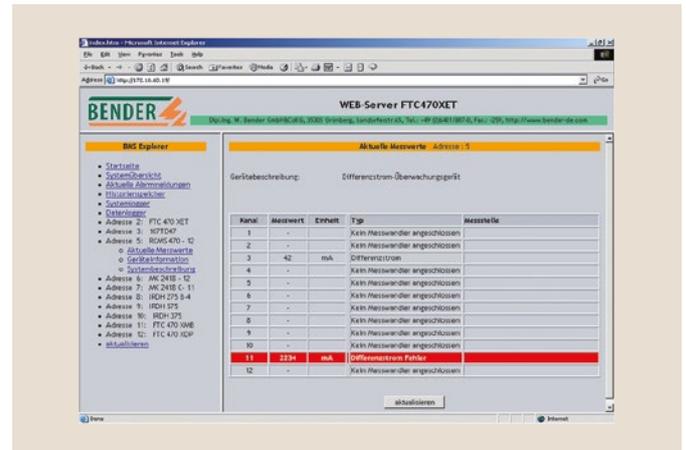
FTC470XET display: E-mail function setting

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