Protocol converter FTC470XDP

Protocol converter to interface the BMS bus to the PROFIBUS DP

FTC470XDP

Device features

- PROFIBUS-DP interface for communication with higher-level systems (building management systems or visualisation software)

Product description

The protocol converter FTC470XDP is designed to transmit data from the BMS bus to the PROFIBUS DP and vice versa. In this way, information from communication-capable Bender products, such as EDS, RCMS or MEDICS® systems can be integrated into a PROFIBUS DP system. Programming or adaptations on the PROFIBUS DP side have to be carried out by the user.

Application

- Converting BMS data into PROFIBUS DP data
- Querying and setting Bender devices with communication possibilities, such as RCMS, EDS and MEDICS® systems
- Transmitting all BMS data to PROFIBUS DP
- Displaying Bender data on PROFIBUS-compatible software
- Reactions on the PROFIBUS side to BMS events
- Connection to PROFIBUS-compatible building services management systems
- Reactions on the BMS side to events on the PROFIBUS DP side

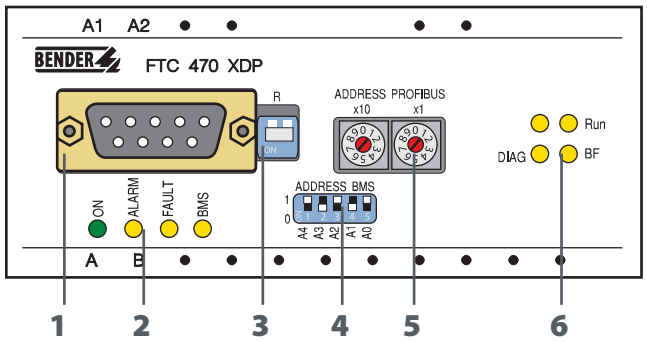
Function

The protocol converter FTC470XDP is incorporated into the PROFIBUS DP system as a slave and into a BMS system either as a master or a slave. The PROFIBUS DP master, e.g. a personal computer utilising a PROFIBUS card or a PLC must be programmed in a way that the protocol converter is capable of triggering the respective requests and getting replies. For appropriate programming, the user is required to have a thorough PROFIBUS DP knowledge. The necessary documentation together with the entire command syntax is a component of the FTC470XDP manual.

Standards, approvals and certifications

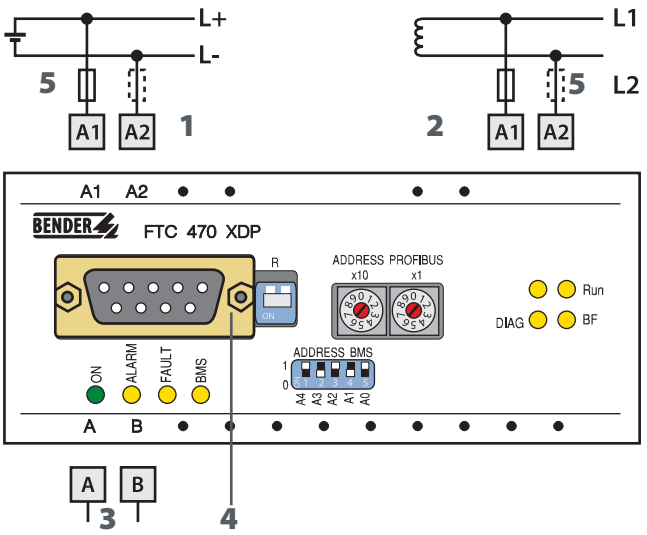
AE25

Operating elements



1 - Socket for PROFIBUS cable: 9-pin SUB-D
2 - BMS bus status indication
3 - Micro switch for PROFIBUS DP termination: "ON" = terminating resistor activated
4 - Switch for BMS bus address setting: 1…30
5 - Rotary switch for PROFIBUS DP address setting: 1…99
6 - PROFIBUS DP status indication

Wiring diagram



1 - System connection U_S = DC 85…276 V
2 - System connection U_S = AC 85…276 V
3 - BMS bus connection
4 - PROFIBUS DP 9-pin SUB-D
5 - U_S, see ordering information, 6 A fuse recommended

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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 / Alarm / FAULT / BMS

PROFIBUS DP

Interface / protocol	RS-485 / PROFIBUS-DP
Mode	PROFIBUS DP slave
Connection	9-pin SUB-D
Indication LEDs	Run / Diag / bus error
Baud rate	9.6 kBit/s…12 Mbit/s automatic recognition
Terminating resistor	DIP switch
Address assignment PROFIBUS-DP	rotary switch, 1…99

General data

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 °C…+55 °C
Classification of mechanical conditions acc. to IEC 60721	
Stationary use	3M4
Transport	2M2
Long-time storage	1M3
Operating mode	continuous operation
Mounting	any position
Connection	screw-type terminals
Connection properties	
rigid/flexible/conductor sizes	0.2…4 / 0.2…2.5 mm² / AWG 22-12
flexible with ferrule, without/with plastic sleeve	0.25…2 mm²
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	TGH1358
Weight	≤ 360 g

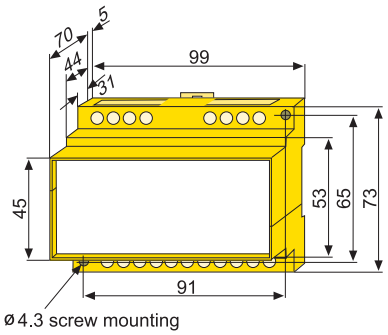
Ordering information

Type	Supply voltage U_S	Art No.
FTC470XDP	AC / DC 85…276 V*	B 9506 1000

*Absolute value

Dimension diagram X470

Dimensions in mm



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