

Left Side Expansion Module Specifications

Ethernet Communication Boards/Modules



| Specification | Model | FBS-CBEH | FBS-CBE | FBS-CM25E | FBS-CM55E |
|-----------------------------------|-------|--|------------|--|--|
| Network interface | | 10/100 Base T | | 10 Base T | |
| Network protocol | | TCP/UDP/IP, ICMP, ARP | | | |
| Application protocol | | FATEK client and server mode, Modbus-TCP client or server mode | | FATEK client and server mode, Modbus-TCP server mode | |
| PLC interface | | Port1, Port2 | | Port4 | |
| PLC communication speed | | 307.2 Kbps | 115.2 Kbps | 9.6K / 19.2K / 38.4K / 57.6K / 115.2Kbps / 230.4Kbps | |
| Expansion communication interface | | N/A | | RS232 (Port3), RS485 (Port4) | RS485 (Port3, Port4) |
| Application IP port number | | FATEK port number 500, Modbus-TCP 502 or customized | | | |
| Security protection | | IP based access control | | | |
| Indicators | | Internet RX, TX, LINK LEDs indicators | | | |
| Wiring mechanism | | RJ-45 | | DB9F, spring terminal block 4-pin x1, 3-pin x1 | Spring terminal block 4-pin x1, 3-pin x1 |
| Dimension (Installation position) | | Expansion slot of main unit | | Figure 5 | |

CANopen® Communication Board



| Specification | Model | FBS-CBCAN |
|--------------------------------------|-------|---|
| Communication standard | | CAN 2.0A CANopen |
| Network topology | | 3-Phase fieldbus |
| Communication speed | | 10K / 20K / 50K / 125K / 250K / 500K / 1Mbps |
| Maximum number of connection station | | 127 stations |
| Method of sending signal | | Event or cyclic transmission |
| Isolation method | | Optical (signal) isolation, 500VAC, 1 minute |
| Number of PDO communication | | RXPDO-10, TXPDO-10 total up to 80 registers |
| Number of SDO channels | | Client -1, Server-1 |
| Error control | | Heartbeat |
| Wiring mechanism | | 3-pin spring terminal block |
| ID setup method | | Same as PLC station number or setup by software |
| Working mode | | Master or slave dual modes |
| Installation position | | Expansion slot of main unit |

ZigBee™ Communication Modules



| Specification | Model | FBS-CMZB | FBS-CMZBR |
|-------------------------|-------|---|-------------------|
| Standards | | Based on IEEE 802.15.4 and ZigBee™ standard | |
| Network topology | | Mesh, Star, and Cluster-tree | |
| Frequency | | 2.4GHz, Unlicensed ISM Band | |
| Modulation | | QPSK | |
| Data rate | | 250 Kbps | |
| RF channels | | 16(5MHz) | |
| Data encryption | | AES(option) | |
| Transmit power | | -7~18dBm | |
| Transmission distance | | 1200m (LOS) | |
| Nodes | | Maximum 65535 | |
| Communication interface | | Port3 | — |
| Power consumption | | 24VDC, -15%/+20%, 2W | |
| Dimension | | Figure 5 | 62 x 54 x 29 (mm) |

GSM Communication Module



| Specification | Model | FBS-CMGSM |
|-------------------------|-------|---|
| Function | | SMS, GPRS, and dial up data transfer (CSD), and etc |
| Frequencies | | 850/900/1800/1900MHz |
| RF power | | 2W |
| Communication interface | | Port3 |
| Dimension | | Figure 5 |

General Purpose Communication Modules



| Specification | Model | FBS-CM25C | FBS-CM5R | FBS-CM5H |
|------------------|-------|--|--------------------------------|----------------------------------|
| Function | | General purpose RS232 to RS485 bi-directional signal converter | General purpose RS485 repeater | General purpose 1 to 3 RS485 HUB |
| Indicators | | Each port has its own independent TX, RX LED indicator | | |
| External power | | 24VDC, -15%/+20% | | |
| Wiring mechanism | | DB9F, 3.81mm European terminal block | 3 pins spring terminal block | 7.62mm fixed terminal block |
| Dimension | | Figure 5 | | Figure 4 |