EXPANSION MODULE
BACNET MS/TP,
MODBUS RTU

BACNET-MS/TP-
SCHNITTSTELLE

MODBUS-SCHNITTSTELLE

EM-BAC-MOD

BACNET AND MODBUS INTERFACE FOR UNIVERSAL CONTROLLERS AND ADAPTER MODULES

Expansion module for UNIVERSAL fume cupboard controllers, room controllers, extract air controllers, supply air controllers, and adapter modules, for the integration of rooms or individual volume flow controllers with the central BMS

- Switching between BACnet MS/TP and Modbus RTU
- BACnet Standardised Device Profile (Annex L)
- Modbus interface with individual data registers
- Native BACnet interface by integrating the expansion module with EASYLAB components
- Easy retrofitting
- Double-stack terminal blocks for the EIA-485 bus
- Equipment address and data transfer parameters can be defined

Interface to central BMS

- When used on a controller with active room management function (RMF) the module provides also data points for the entire room, e.g. for total volume flows or consolidated alarms
- When used on a single controller: data points for volume flow rate, alarm, damper blade position, or others
- Centralised operating mode default setting, e.g. night-time operation

Application

Application

- Expansion module Type EM-BAC-MOD for the EASYLAB system
- BACnet-MS/TP or Modbus RTU interface to the central BMS
- Data points for individual controllers or for the room
- Room interface: Default setting of room operating modes within the EASYLAB system, increase or reduction of the air change rate, readout of the actual room operating values or evaluated damper blade positions, consolidated alarms
- Controller interface: Operating mode default setting for a single fume cupboard controller, readout of individual operating values such as volume flow rates for single controllers, or individual alarms
- Can be used with fume cupboard, supply air, extract air or differential pressure controller EASYLAB TCU3 and with adapter module TAM
- For use in laboratories, clean rooms in the pharmaceutical and semiconductor industries, operating theatres, intensive care units, and offices with very demanding control requirements
- Factory mounted or for retrofitting into the EASYLAB base component casing

Special characteristics

- Ready for installation, can be easily connected to the main PCB
- Interface for EIA-485 networks BACnet MS/TP and Modbus RTU
- BACnet Protocol Revision 12.0
- Only standard BACnet objects or Modbus registers are used for communication
- Data interface for an EASYLAB controller or for an EASYLAB room with different functional profiles
- Hardware switch to enter network addresses and communication parameters (no communication software required)

Description

Parts and characteristics

- Microprocessor with setup programme stored in nonvolatile memory
- EIA-485 communication interface
- Slide switch to switch between BACnet and Modbus communication protocols
- Two address switches, X and Y, to set equipment addresses 1-99
- 8-way DIP switches to adjust the communication parameter
- Double-stack terminal blocks for the EIA-485 network (simple wiring)
- Two indicator lights indicate communication and errors, respectively
- Connection to update the firmware
- EIA-485 terminal resistor that can be activated

Construction features

- PCB dimensions and fixing points correspond to the EASYLAB main PCB and the casing
- Fixing with screws
- Pin header to connect the module to the main PCB of the TCU3 or TAM