

## E°CONTROL E°UBM-MODULES

The E°UBM fieldbus modules complement the existing E°CONTROL product lines based on the following properties:

- Applicable on Ethernet fieldbuses EtherCAT® and PROFINET, as well as in CANopen® networks
- Wide range of modules incl. safety functionality
- Compact design
- Supports commissioning by tool-free wiring
- UL certification



### E°UBM – Bus Couplers and Infrastructure Components



- |                    |   |
|--------------------|---|
| <b>E°UBM-BK-EC</b> | – EtherCAT®                                     |
| <b>E°UBM-BK-CO</b> | – CANopen®                                      |
| <b>E°UBM-BK-PN</b> | – PROFINET                                      |
| <b>E°UBM-SK13</b>  | – EtherCAT® Star Hub with 3 EtherCAT® junctions |

- Up to 64 E°UBM modules on one bus coupler
- Web server for administration via USB/network
- Supply of the connected E°UBM modules

### E°UBM – Digital Input Modules



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|--|--|
| <b>E°UBM-04DI-P</b>                                | 4 digital 24 V DC inputs                       |
| ▪ Connection of sensors in 2- or 3-wire technology |  |
| <b>E°UBM-04DI-AC</b>                               | 4 digital 110 – 230 V AC inputs                |
| <b>E°UBM-08DI-P</b>                                | 8 digital 24 V DC inputs                       |
| ▪ Connection of sensors in 2-wire technology       |  |
| <b>E°UBM-16DI-P, E°UBM-16DI-N</b>                  | 16 digital 24 V DC inputs<br>p- or n-switching |
| ▪ Connection of sensors in 1-wire technology       |  |

### E°UBM – Digital Output Modules



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|--|---|
| <b>E°UBM-04DO-P</b>                                  | 4 digital outputs                       |
| ▪ Each with 500 mA output current at 24 V DC         |   |
| ▪ Connection of actuators in 2- or 3-wire technology |   |
| <b>E°UBM-08DO-P</b>                                  | 8 digital outputs                       |
| ▪ Each with 500 mA output current at 24 V DC         |   |
| ▪ Connection of actuators in 2-wire technology       |   |
| <b>E°UBM-16DO-P, E°UBM-16-DO-N</b>                   | 16 digital outputs<br>p- or n-switching |
| ▪ Connection of actuators in 1-wire technology       |   |

### E°UBM – Analog Input Modules



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|---|---|
| <b>E°UBM-04AI-1x</b>  | 4 analog inputs in 2- and 3-wire technology |
| ▪ Resolution: 12 bit (E°UBM-04AI-12) or<br>16 bit (E°UBM-04AI-16)   |   |
| ▪ Measuring range: ±10 V, ±5 V, 0 ... 10 V, 0 ... 5 V,<br>2 ... 10 V, 1 ... 5 V, 0 ... 20 mA or 4 ... 20 mA |   |

### E°UBM – Analog Output Module



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|--|--|
| <b>E°UBM-04AO</b>  | 4 analog outputs in 2- and 4-wire technology |
| ▪ Resolution: 16 bit   |  |
| ▪ Output range: ±10 V, ±5 V, 0 ... 10 V, 0 ... 5 V,<br>2 ... 10 V, 1 ... 5 V, 0 ... 20 mA or 4 ... 20 mA |  |

**E°UBM-04AI-16D** 4 analog differential inputs in 2-, 3- or 4-wire technology, ranges like E°UBM-04AI-1x

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|------------------------------------|---|
| <b>E°UBM-04AI-R</b>                | 4 analog inputs, resistance measurement |
| ▪ Resolution: 16 bit               |   |
| ▪ Resistance range: 300 Ω to 50 kΩ |   |

## E°UBM – Pulse Width Modulation Output Module



### E°UBM-02PWM-02 2 pulse width modulated outputs

- Frequency range from 6 Hz to 40 kHz
- Pulse duration from 25 µs to ca. 175 ms

## E°UBM – Temperature Measurement Module



### E°UBM-04TC

4 analog inputs for thermocouples

- Resolution: 16 bit
- Internal or external cold junction compensation
- Thermocouples type J, K, T, B, N, E, R, S, L, U, C

## E°UBM – Counter Modules



### E°UBM-01CNT-DO 1 counter 32 bit, max. 100 kHz

- A-/B channel, 1/2/4-fold evaluation or pulse and direction, invertible
- Latch function, gate input, time stamp

### E°UBM-02CNT-INC 2 counters, each 32 bit, max. 100 kHz

- A-/B channel, 1/2/4-fold evaluation or pulse and direction, invertible, Time stamp

### E°UBM-01CNT-INC 1 counter 32 bit, max. 500 kHz, differential inputs, A-/B-channel or pulse and direction

## E°UBM – Communication Modules



### E°UBM-01COM-RS 1 serial interface

- Optional RS232, RS485 or RS422 operation

### E°UBM-01COM-SIO Connection of external IP67 modules

### E°UBM-04COM-IOL I/O-Link master for 4 I/O-Link devices

## E°UBM – Potential Distribution Modules



### E°UBM-16PD-GI Distribution 0 V DC input current path

- E°UBM-16PD-GO Distribution 0 V DC output current path
- E°UBM-16PD-PI Distribution 24 V DC input current path
- E°UBM-16PD-PO Distribution 24 V DC output current path
- E°UBM-16PD-FE Distribution functional earth FE

## E°UBM – Power Feed Modules



### E°UBM-PS-I Supply input current path 24 V DC

### E°UBM-PS-O Supply output current path 24 V DC

## E°UBM – Safe I/O Modules for EtherCAT® (FsoE)



### E°UBM-44DIO-SE 4 digital inputs and 4 digital outputs each

- Activatable cross circuit detection, 2 channel operation

### E°UBM 08DI-B-SE 8 digital inputs

- Activatable cross circuit detection

## E°UBM – Safe Power Feed Module



### E°UBM-02DI-PS-O-D-S 2 x 2-channel inputs

- No safety controller required
- Switching off subsequent output modules
- Configurable switch-off delay
- Activatable cross circuit detection, 2-channel operation