



**Starter package consisting of EASY-E4-DC-12TC1, patch cable and software license for easySoft**



**Part no. EASY-BOX-E4-DC1**  
**Catalog No. 197228**

## Delivery program

|                |  |  |                           |
|----------------|--|--|---------------------------|
| Supply voltage |  |  | 24 V DC                   |
| Software       |  |  | EASYSOFT-SWLIC/easySoft 7 |

## Technical data

### General

|           |  |  |                                                                                                                          |
|-----------|--|--|--------------------------------------------------------------------------------------------------------------------------|
| Standards |  |  | EN 61000-6-2<br>EN 61000-6-3<br>IEC 60068-2-6<br>IEC 60068-2-27<br>IEC 60068-2-30<br>IEC 61131-2<br>EN 61010<br>EN 50178 |
| Mounting  |  |  | Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)                         |

### Terminal capacities

|                       |  |                 |                       |
|-----------------------|--|-----------------|-----------------------|
| Solid                 |  | mm <sup>2</sup> | 0.2/4 (AWG 22 - 12)   |
| Flexible with ferrule |  | mm <sup>2</sup> | 0.2/2.5 (AWG 22 - 12) |

### Climatic environmental conditions

|                               |  |     |                                                                 |
|-------------------------------|--|-----|-----------------------------------------------------------------|
| Operating ambient temperature |  | °C  | -25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2 |
| Condensation                  |  |     | Take appropriate measures to prevent condensation               |
| LCD display (clearly legible) |  | °C  | 0 - 55                                                          |
| relative humidity             |  | %   | in accordance with IEC 60068-2-30, IEC 60068-2-78<br>5 - 95     |
| Air pressure (operation)      |  | hPa | 795 - 1080                                                      |

### Ambient conditions, mechanical

|                                                                            |             |         |                                                                                                                |
|----------------------------------------------------------------------------|-------------|---------|----------------------------------------------------------------------------------------------------------------|
| Protection type (IEC/EN 60529, EN50178, VBG 4)                             |             |         | IP20                                                                                                           |
| Vibrations                                                                 |             | Hz      | In accordance with IEC 60068-2-6<br>constant amplitude 0.15 mm: 10 - 57<br>constant acceleration 2 g: 57 - 150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms |             | Impacts | 18                                                                                                             |
| Drop to IEC/EN 60068-2-31                                                  | Drop height | mm      | 50                                                                                                             |
| Free fall, packaged (IEC/EN 60068-2-32)                                    |             | m       | 0.3                                                                                                            |
| Mounting position                                                          |             |         | Vertical or horizontal                                                                                         |

### Electromagnetic compatibility (EMC)

|                                                               |  |    |                               |
|---------------------------------------------------------------|--|----|-------------------------------|
| Overvoltage category/pollution degree                         |  |    | III/2                         |
| Electrostatic discharge (ESD)                                 |  |    |                               |
| applied standard                                              |  |    | according to IEC EN 61000-4-2 |
| Air discharge                                                 |  | kV | 8                             |
| Contact discharge                                             |  | kV | 4                             |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |  | V  | 10                            |

### Insulation resistance

|                                         |  |  |                                                                         |
|-----------------------------------------|--|--|-------------------------------------------------------------------------|
| Clearance in air and creepage distances |  |  | nach EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201 |
| Insulation resistance                   |  |  | per EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201  |

### Back-up of real-time clock

|                                       |  |       |                                                                                                  |
|---------------------------------------|--|-------|--------------------------------------------------------------------------------------------------|
| Accuracy of real-time clock to inputs |  | s/day | typ. ± 2 (± 0.2 h/Year)                                                                          |
|                                       |  |       | depending on ambient air temperature fluctuations of up to ± 5 s/day (± 0.5 h/year) are possible |

## Design verification as per IEC/EN 61439

|                                                |                 |   |   |
|------------------------------------------------|-----------------|---|---|
| Technical data for design verification         |                 |   |   |
| Static heat dissipation, non-current-dependent | P <sub>vs</sub> | W | 2 |

|                                                                                                                        |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Operating ambient temperature min.                                                                                     | °C | -25                                                                                                                              |
| Operating ambient temperature max.                                                                                     | °C | 55                                                                                                                               |
| IEC/EN 61439 design verification                                                                                       |    |                                                                                                                                  |
| 10.2 Strength of materials and parts                                                                                   |    |                                                                                                                                  |
| 10.2.2 Corrosion resistance                                                                                            |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.1 Verification of thermal stability of enclosures                                                               |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat                                             |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |    | Meets the product standard's requirements.                                                                                       |
| 10.2.4 Resistance to ultra-violet (UV) radiation                                                                       |    | Meets the product standard's requirements.                                                                                       |
| 10.2.5 Lifting                                                                                                         |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.6 Mechanical impact                                                                                               |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.7 Inscriptions                                                                                                    |    | Meets the product standard's requirements.                                                                                       |
| 10.3 Degree of protection of ASSEMBLIES                                                                                |    | Meets the product standard's requirements.                                                                                       |
| 10.4 Clearances and creepage distances                                                                                 |    | Meets the product standard's requirements.                                                                                       |
| 10.5 Protection against electric shock                                                                                 |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.6 Incorporation of switching devices and components                                                                 |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.7 Internal electrical circuits and connections                                                                      |    | Is the panel builder's responsibility.                                                                                           |
| 10.8 Connections for external conductors                                                                               |    | Is the panel builder's responsibility.                                                                                           |
| 10.9 Insulation properties                                                                                             |    |                                                                                                                                  |
| 10.9.2 Power-frequency electric strength                                                                               |    | Is the panel builder's responsibility.                                                                                           |
| 10.9.3 Impulse withstand voltage                                                                                       |    | Is the panel builder's responsibility.                                                                                           |
| 10.9.4 Testing of enclosures made of insulating material                                                               |    | Is the panel builder's responsibility.                                                                                           |
| 10.10 Temperature rise                                                                                                 |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                                                                                             |    | Is the panel builder's responsibility.                                                                                           |
| 10.12 Electromagnetic compatibility                                                                                    |    | Is the panel builder's responsibility.                                                                                           |
| 10.13 Mechanical function                                                                                              |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 7.0

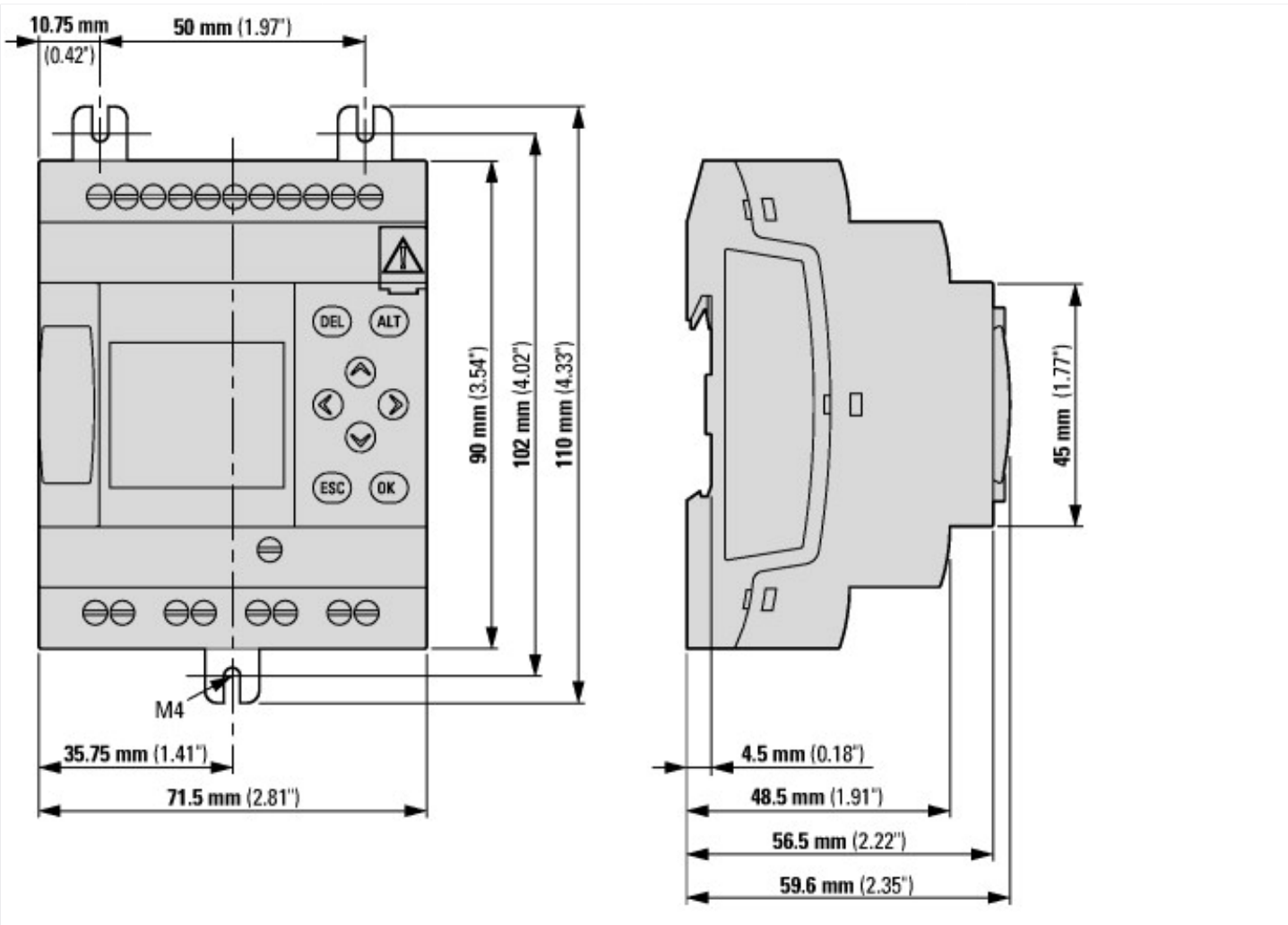
|                                                                                                                                                                  |   |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|
| PLC's (EG000024) / Logic module (EC001417)                                                                                                                       |   |             |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / Logic module (ecl@ss10.0.1-27-24-22-16 [AKE539014]) |   |             |
| Supply voltage AC 50 Hz                                                                                                                                          | V | 0 - 0       |
| Supply voltage AC 60 Hz                                                                                                                                          | V | 0 - 0       |
| Supply voltage DC                                                                                                                                                | V | 20.4 - 28.8 |
| Voltage type of supply voltage                                                                                                                                   |   | DC          |
| Switching current                                                                                                                                                | A | 0.5         |
| Number of analogue inputs                                                                                                                                        |   | 0           |
| Number of analogue outputs                                                                                                                                       |   | 0           |
| Number of digital inputs                                                                                                                                         |   | 8           |
| Number of digital outputs                                                                                                                                        |   | 4           |
| With relay output                                                                                                                                                |   | No          |
| Number of HW-interfaces industrial Ethernet                                                                                                                      |   | 1           |
| Number of interfaces PROFINET                                                                                                                                    |   | 0           |
| Number of HW-interfaces RS-232                                                                                                                                   |   | 0           |
| Number of HW-interfaces RS-422                                                                                                                                   |   | 0           |
| Number of HW-interfaces RS-485                                                                                                                                   |   | 0           |
| Number of HW-interfaces serial TTY                                                                                                                               |   | 0           |
| Number of HW-interfaces USB                                                                                                                                      |   | 0           |
| Number of HW-interfaces parallel                                                                                                                                 |   | 0           |
| Number of HW-interfaces Wireless                                                                                                                                 |   | 0           |
| Number of HW-interfaces other                                                                                                                                    |   | 1           |
| With optical interface                                                                                                                                           |   | No          |
| Supporting protocol for TCP/IP                                                                                                                                   |   | Yes         |
| Supporting protocol for PROFIBUS                                                                                                                                 |   | No          |

|                                                     |    |      |
|-----------------------------------------------------|----|------|
| Supporting protocol for CAN                         |    | No   |
| Supporting protocol for INTERBUS                    |    | No   |
| Supporting protocol for ASI                         |    | No   |
| Supporting protocol for KNX                         |    | No   |
| Supporting protocol for MODBUS                      |    | Yes  |
| Supporting protocol for Data-Highway                |    | No   |
| Supporting protocol for DeviceNet                   |    | No   |
| Supporting protocol for SUCONET                     |    | No   |
| Supporting protocol for LON                         |    | No   |
| Supporting protocol for PROFINET IO                 |    | No   |
| Supporting protocol for PROFINET CBA                |    | No   |
| Supporting protocol for SERCOS                      |    | No   |
| Supporting protocol for Foundation Fieldbus         |    | No   |
| Supporting protocol for EtherNet/IP                 |    | No   |
| Supporting protocol for AS-Interface Safety at Work |    | No   |
| Supporting protocol for DeviceNet Safety            |    | No   |
| Supporting protocol for INTERBUS-Safety             |    | No   |
| Supporting protocol for PROFIsafe                   |    | No   |
| Supporting protocol for SafetyBUS p                 |    | No   |
| Supporting protocol for other bus systems           |    | No   |
| Radio standard Bluetooth                            |    | No   |
| Radio standard WLAN 802.11                          |    | No   |
| Radio standard GPRS                                 |    | No   |
| Radio standard GSM                                  |    | No   |
| Radio standard UMTS                                 |    | No   |
| IO link master                                      |    | No   |
| Redundancy                                          |    | No   |
| With display                                        |    | Yes  |
| Degree of protection (IP)                           |    | IP20 |
| Basic device                                        |    | Yes  |
| Expandable                                          |    | Yes  |
| Expansion device                                    |    | No   |
| With timer                                          |    | Yes  |
| Rail mounting possible                              |    | Yes  |
| Wall mounting/direct mounting                       |    | Yes  |
| Front build in possible                             |    | Yes  |
| Rack-assembly possible                              |    | No   |
| Suitable for safety functions                       |    | No   |
| Category according to EN 954-1                      |    | None |
| SIL according to IEC 61508                          |    | None |
| Performance level acc. EN ISO 13849-1               |    | None |
| Appendant operation agent (Ex ia)                   |    | No   |
| Appendant operation agent (Ex ib)                   |    | No   |
| Explosion safety category for gas                   |    | None |
| Explosion safety category for dust                  |    | None |
| Width                                               | mm | 71.5 |
| Height                                              | mm | 90   |
| Depth                                               | mm | 58   |

## Approvals

|                      |  |                           |
|----------------------|--|---------------------------|
| Degree of Protection |  | IEC: IP20, UL/CSA Type: - |
|----------------------|--|---------------------------|

Dimensions



Additional product information (links)

|                                         |                                                                                                                                                                     |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| assembly instructions easyE4 IL050020ZU |                                                                                                                                                                     |
| assembly instructions easyE4 IL050020ZU | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL050020ZU2019_02.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL050020ZU2019_02.pdf</a> |
| easyE4 (MN050009) manual                |                                                                                                                                                                     |
| easyE4 – Handbuch (MN050009) - Deutsch  | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_DE.pdf</a>                       |
| easyE4 (MN050009) manual - English      | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_EN.pdf</a>                       |
| Manuale easy E4 (MN050009) - italiano   | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_IT.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_IT.pdf</a>                       |
| instrukcja easyE4 (MN050009) - polski   | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_PL.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050009_PL.pdf</a>                       |
| Produktübersicht (WEB)                  | <a href="http://www.eaton.eu/easyE4">http://www.eaton.eu/easyE4</a>                                                                                                 |