



## Ethernet gateway, for connecting easy/MFD control relay to Ethernet

**Part no.** EASY209-SE  
**Article no.** 101520

### Delivery program

|                |  |  |  |
|----------------|--|--|--|
| Product range  |  |  | Control relays easyRelay<br>Multi-function-display MFD-Titan   |
| Subrange       |  |  | Ethernet gateway   |
| Basic function |  |  | Expansions   |
| Function       |  |  | serial interface easyRelay or MFD-...CP8/CP10... to Ethernet<br>for connection to easyOPC server, easySoft, or easyCom |
| For use with   |  |  | easy500<br>easy700<br>easy800<br>MFD-CP8..<br>ES4P   |

### Technical data

#### General

|                        |  |    |  |
|------------------------|--|----|--|
| Standards              |  |    | EN 55011, EN 55022, IEC/EN 61000-4, EN 50178   |
| Dimensions (W x H x D) |  | mm | 35.5 x 90 x 58 (2 PE)  |
| Weight                 |  | kg | 0.15   |
| 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) |
| Standard screwdriver   |  | mm              | 3.5 x 0.8             |
| Max. tightening torque |  | Nm              | 0.6                   |

#### Data cable

|                       |  |                 |                      |
|-----------------------|--|-----------------|----------------------|
| Solid                 |  | mm <sup>2</sup> | 0.25/1.5 (AWG 24/16) |
| Flexible with ferrule |  | mm <sup>2</sup> | 0.14/ 1 (AWG 26/17)  |

#### Climatic environmental conditions

|   |  |     |   |
|---|--|-----|---|
| Operating ambient temperature                         |  | °C  | -25 to + 55                                       |
| Condensation  |  |     | Take appropriate measures to prevent condensation |
| Storage   |  | °C  | - 40 - 70   |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) |  | %   | 5 - 95  |
| Air pressure (operation)                              |  | hPa | 795 - 1080  |

#### Ambient conditions, mechanical

|  |             |         |                        |
|--|-------------|---------|------------------------|
| Protection type (IEC/EN 60529, EN50178, VBG 4)                             |             |         | IP20                   |
| Vibrations (IEC/EN 60068-2-6)  |             | Hz      |                        |
| Constant amplitude 0.15 mm   |             | Hz      | 10 - 57                |
| Constant acceleration 2 g  |             | Hz      | 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       | 1                      |
| Mounting position  |             |         | Vertical or horizontal |

#### Electromagnetic compatibility (EMC)

|  |     |    |  |
|--|-----|----|--|
| Overvoltage category/pollution degree                    |     |    | II/2   |
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD) |     | kV |  |
| Air discharge  |     | kV | 8  |
| Contact discharge  |     | kV | 6  |
| Electromagnetic fields (IEC/EN 61000-4-3, RFI)           | V/m |    | RS-232 line without screen: 3, with screen: 10 |

|   |  |    |  |
|---|--|----|--|
| Radio interference suppression                                |  |    | EN 55011 Class B, EN 55022 Class B             |
| Burst Impulse (IEC/EN 61000-4-4, Level 3)                     |  |    |  |
| Supply cable  |  | kV | 2  |
| Ethernet interface cable                                      |  | kV | 2  |
| COM interface cable   |  | kV | 2  |
| power pulses (surge) (IEC/EN 61000-4-5, level 2)              |  | kV | 1 (supply cables, symmetrical)                 |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |  | V  | RS-232 line without screen: 3, with screen: 10 |

### Insulation resistance

|   |  |  |                                      |
|---|--|--|--------------------------------------|
| Clearance in air and creepage distances |  |  | EN 50178, UL 508, CSA C22.2, No. 142 |
| Insulation resistance                   |  |  | EN 50178                             |

### Power supply

|                                       |                |      |                                |
|---------------------------------------|----------------|------|--------------------------------|
| Rated operational voltage             | U <sub>e</sub> | V    | 24 (-15/+20 %)                 |
| Admissible range                      |                | V DC | 20.4 - 28.8                    |
| Residual ripple                       |                | %    | 5                              |
| max. current consumption (at 24 V DC) |                | mA   | Normally 65                    |
| Heat dissipation at 24 V DC           |                | W    | 1.7                            |
| Note on heat dissipation              |                |      | Current consumption at 24 V DC |

### Protection against polarity reversal

|                   |  |  |     |
|-------------------|--|--|-----|
| AS-I power supply |  |  | Yes |
|-------------------|--|--|-----|

### LEDs

|                     |  |  |  |
|---------------------|--|--|--|
| Supply              |  |  | Front power LED: ON                                      |
| LED display         |  |  | Front-LED COM active: flashing                           |
| RJ45 socket, top    |  |  | No Activity: OFF, Amber: Half Duplex, Green: Full Duplex |
| RJ45 socket, bottom |  |  | No Link: OFF, Amber: 10 MBit/s, Green: 100 MBit/s        |
| Reset               |  |  | Front: via buttons > 2s                                  |
| Strain relief       |  |  | Via cable binders in retaining nipples                   |

### Network

|               |  |  |   |
|---------------|--|--|---|
| Bus addresses |  |  | Factory settings Ethernet: IP address 0.0.0.0 SUBNET mask: 255.255.0.0 Gateway address 0.0.0.0 Remote address 0.0.0.0 |
|---------------|--|--|---|

## Design verification as per IEC/EN 61439

|  |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | I <sub>n</sub>    | A  | 0  |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 0  |
| Static heat dissipation, non-current-dependent   | P <sub>vs</sub>   | W  | 1.7  |
| Heat dissipation capacity  | P <sub>diss</sub> | W  | 0  |
| 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 6.0

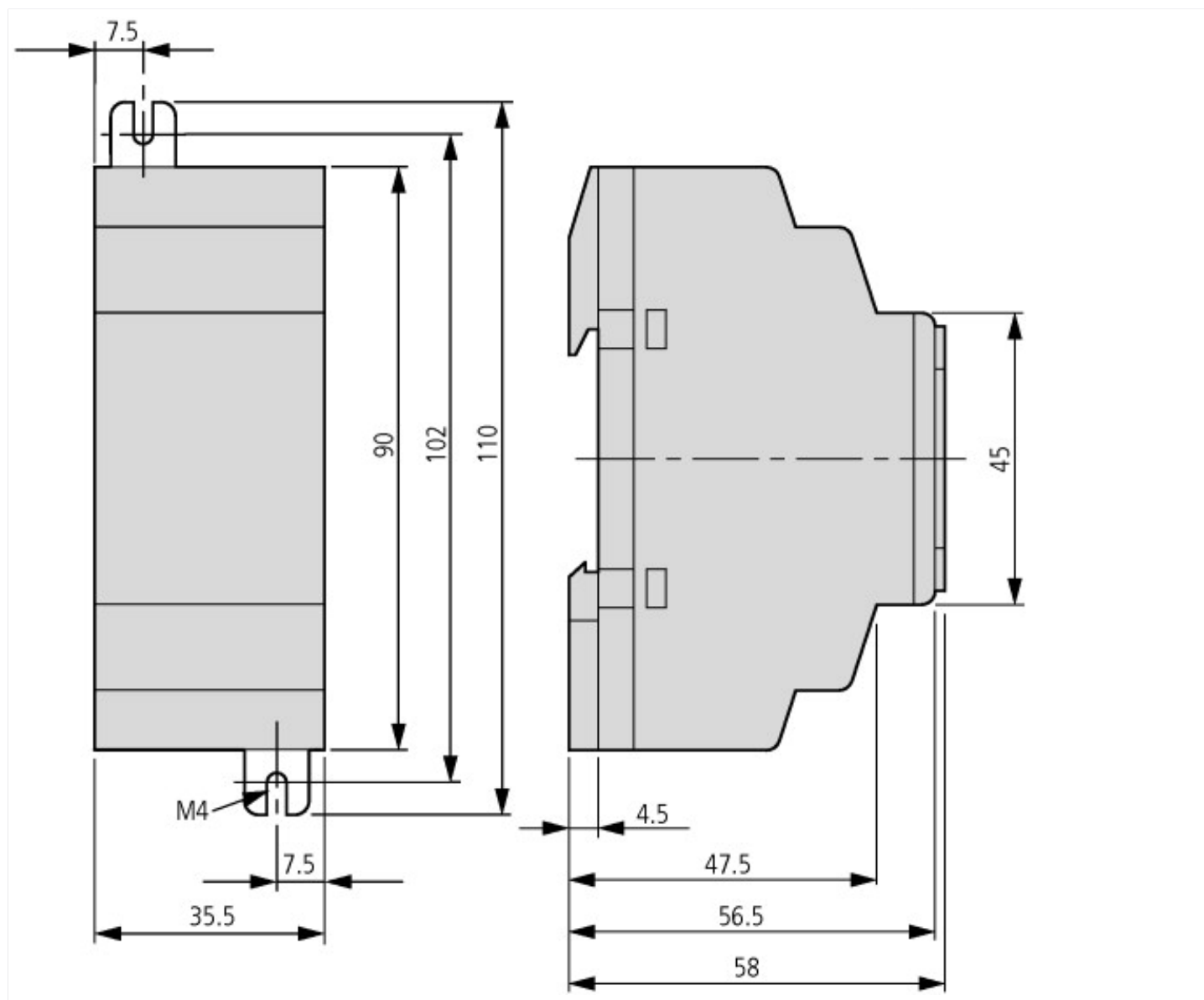
|   |   |             |
|---|---|-------------|
| PLC's (EG000024) / Logic module (EC001417)  |   |             |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / Logic module (ecl@ss8.1-27-24-22-16 [AKE539011]) |   |             |
| Supply 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           |
| Number of analogue inputs   |   | 0           |
| Number of analogue outputs  |   | 0           |
| Number of digital inputs  |   | 0           |
| Number of digital outputs   |   | 0           |
| With relay output   |   | No          |
| Number of HW-interfaces industrial Ethernet   |   | 1           |
| Number of HW-interfaces PROFINET  |   | 0           |
| Number of HW-interfaces RS-232  |   | 1           |
| 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   |   | 0           |
| 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  |   | No          |
| 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                             |  |    | No   |
| Degree of protection (IP)                |  |    | IP20 |
| Basic device                             |  |    | No   |
| Expandable                               |  |    | Yes  |
| Expansion device                         |  |    | Yes  |
| With timer                               |  |    | No   |
| Rail mounting possible                   |  |    | Yes  |
| Wall mounting/direct mounting            |  |    | Yes  |
| Front build in possible                  |  |    | No   |
| Rack-assembly possible                   |  |    | No   |
| Suitable for safety functions            |  |    | No   |
| Category according to EN 954-1           |  |    |      |
| SIL according to IEC 61508               |  |    | None |
| Performance level acc. to 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 | 36   |
| Height                                   |  | mm | 90   |
| Depth                                    |  | mm | 60   |

## Approvals

|                             |  |  |   |
|-----------------------------|--|--|---|
| Product Standards           |  |  | IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking |
| UL File No.                 |  |  | E135462   |
| UL Category Control No.     |  |  | NRAQ, NRAQ7   |
| CSA File No.                |  |  | 012528  |
| CSA Class No.               |  |  | 2252-01 + 2258-02   |
| North America Certification |  |  | UL listed, CSA certified  |
| Degree of Protection        |  |  | IEC: IP20, UL/CSA Type: -   |

## Dimensions



## Additional product information (links)

### Instruction leaflet "Gateway Ethernet: serial interface easy control relays" IL05013019Z (AWA2528-2294)

Instruction leaflet "Gateway Ethernet: serial interface easy control relays" IL05013019Z (AWA2528-2294) [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05013019Z2011\\_09.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013019Z2011_09.pdf)

### Manual "easy800 control relays" MN04902001Z (AWB2528-1423)

MN04902001Z (AWB2528-1423) Steuerrelais easy800 - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN04902001Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_DE.pdf)

MN04902001Z (AWB2528-1423) easy800 control relay - English [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN04902001Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_EN.pdf)

### Manual "easy500, easy700 control relays" MN05013003Z (AWB2528-1508)

MN05013003Z (AWB2528-1508) Steuerrelais easy500, easy700 - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013003Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_DE.pdf)

MN05013003Z (AWB2528-1508) easy500, easy700 control relay - English [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013003Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_EN.pdf)

### Manual "easyControl, EC4-200 programmable PLC" MN05003003Z

MN05003003Z Handbuch easyControl, Programmierbare Steuerung EC4-200 - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05003003Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003003Z_DE.pdf)

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