



**Communication module/power supply unit for remote text display,  
100-240VAC, easy800/EC4P/ES4P**

**Part no.** MFD-AC-CP4-800  
**Catalog No.** 286824

**EL-Nummer  
(Norway)** 4519607

## Delivery program

|                |  |  |                                                                                |
|----------------|--|--|--------------------------------------------------------------------------------|
| Product range  |  |  | Multi-function-display MFD-Titan                                               |
| Basic function |  |  | Power supply unit/CPU modules                                                  |
| Description    |  |  | Degree of protection IP20<br>With connection cable (5 m, can be cut to length) |
| Supply voltage |  |  | 100 - 240 V AC                                                                 |
| For use with   |  |  | easy800<br>ES4P                                                                |
| Instructions   |  |  | can be combined with display/operating unit MFD-80...as stand-alone display    |

## Technical data

### General

|                        |  |    |                                                                                                                      |
|------------------------|--|----|----------------------------------------------------------------------------------------------------------------------|
| Standards              |  |    | EN 61000-6-1/-2/-3/-4, IEC 60068-2-6, IEC 60068-2-27                                                                 |
| Dimensions (W x H x D) |  | mm | 107.5 x 90 x 30                                                                                                      |
| Weight                 |  | kg | 0.145                                                                                                                |
| Mounting               |  |    | Fitted on the fixing shaft of the display or on top-hat rail according to IEC/EN 60715, 35 mm deep (without display) |

### Terminal capacities

|                       |  |                 |                       |
|-----------------------|--|-----------------|-----------------------|
| Solid                 |  | mm <sup>2</sup> | 0.2/4 (AWG 24 - 12)   |
| Flexible with ferrule |  | mm <sup>2</sup> | 0.2/2.5 (AWG 24 - 12) |
| Standard screwdriver  |  | mm              | 3.5 x 0.6             |

### 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               |
| 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)

|                                                               |  |     |                                    |
|---------------------------------------------------------------|--|-----|------------------------------------|
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)      |  | kV  |                                    |
| Air discharge                                                 |  | kV  | 8                                  |
| Contact discharge                                             |  | kV  | 6                                  |
| Electromagnetic fields (RFI) to IEC EN 61000-4-3              |  | V/m | 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                                  |
| Signal lines                                                  |  | kV  | 2                                  |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) |  | V   | 10                                 |

### Insulation resistance

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

Back-up of real-time clock

|                                 |       |                                 |
|---------------------------------|-------|---------------------------------|
| Accuracy of the real-time clock | s/day | Normally ±5 s/day (±0.5 h/Year) |
|---------------------------------|-------|---------------------------------|

Repetition accuracy of timing relays

|                                       |     |        |
|---------------------------------------|-----|--------|
| Accuracy of timing relays (of values) | %   | ± 0.02 |
| Resolution                            |     |        |
| Range “S”                             | ms  | 5      |
| Range “M:S”                           | s   | 1      |
| Range “H:M”                           | min | 1      |

Retentive memory

|                                      |  |                                      |
|--------------------------------------|--|--------------------------------------|
| Write cycles of the retentive memory |  | 10 <sup>10</sup> (read/write cycles) |
|--------------------------------------|--|--------------------------------------|

Power supply

|                             |                |      |                                         |
|-----------------------------|----------------|------|-----------------------------------------|
| Rated operational voltage   | U <sub>e</sub> | V    | 100/110/115/120//230/240 AC (+10/-15 %) |
| Admissible range            |                | V AC | 85 ... 264                              |
| Frequency                   |                | Hz   | 50/60 (± 5%)                            |
| Input current               |                |      |                                         |
| at 115/120 V AC 60 Hz       |                | mA   | Normally 90                             |
| at 230/240 V AC 50 Hz       |                | mA   | Normally 60                             |
| Power loss                  |                |      |                                         |
| Heat dissipation at 24 V DC |                | W    | 17                                      |
| at 115/120 V AC             |                | VA   | Normally 11                             |
| at 230/240 V AC             |                | VA   | Normally 15                             |

Network easyNet

|                                                 |        |                                                                                                                                            |
|-------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Stations                                        | Number | max. 8                                                                                                                                     |
| Data transfer rate/distance                     |        | 1000 kBit/s, 6 m<br>500 Kbit/s, 25 m<br>250 Kbit/s, 40 m<br>125 kBit/s, 125 m<br>50 Kbit/s, 300 m<br>20 Kbit/s, 700 m<br>10 Kbit/s, 1000 m |
| Distance                                        | m      | 5                                                                                                                                          |
| Potential isolation                             |        |                                                                                                                                            |
| From power supply                               |        | Yes                                                                                                                                        |
| From the inputs                                 |        | Yes                                                                                                                                        |
|                                                 |        |                                                                                                                                            |
| to PC interface, memory card, easyNet, easyLink |        | Yes                                                                                                                                        |
| Bus termination (first and last station)        |        | Yes                                                                                                                                        |
| Connection technique                            |        | RJ45, 8-pole                                                                                                                               |

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  | 17                                                                 |
| 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

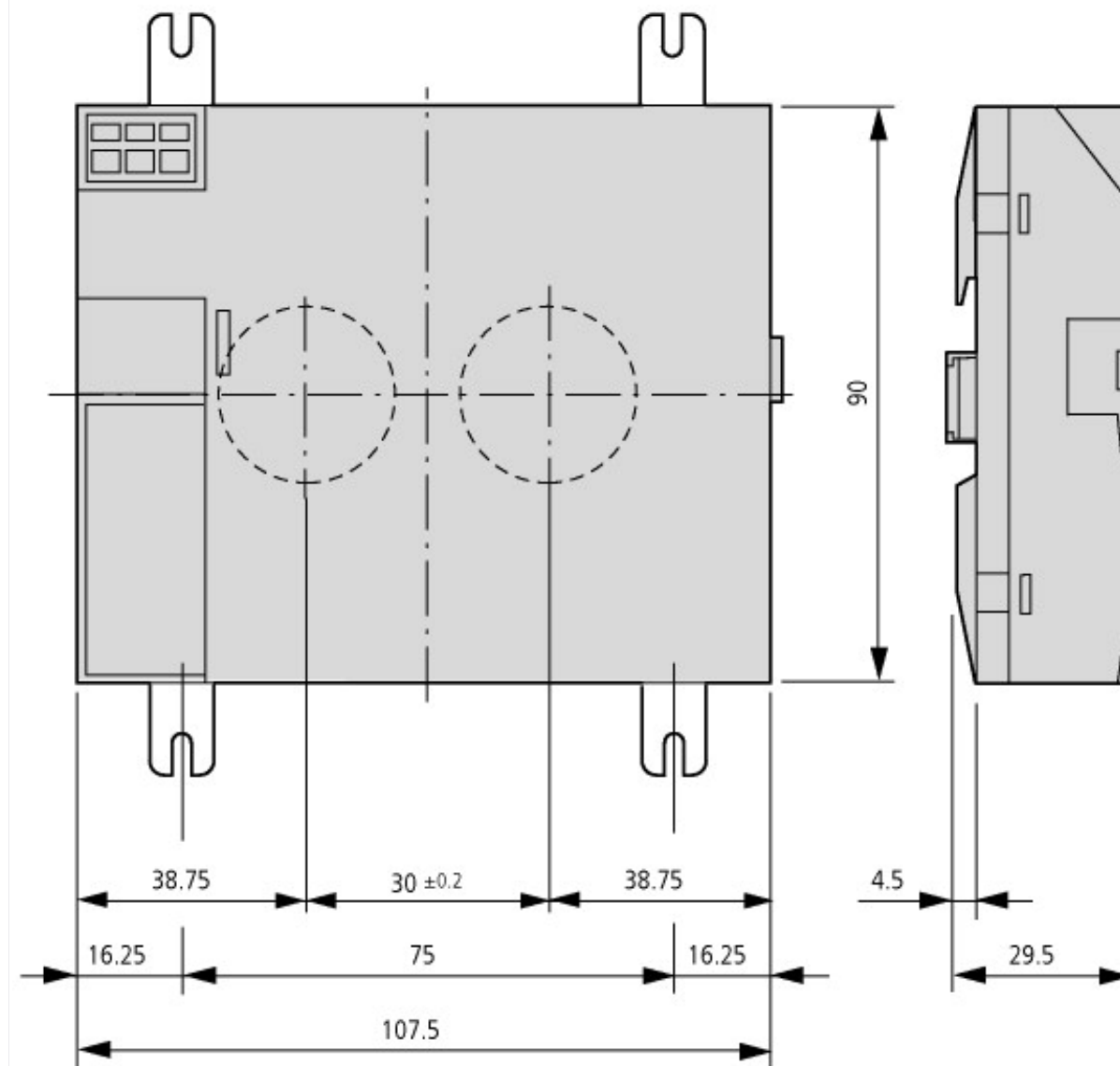
|                                                                                                                                                            |   |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------|
| PLC's (EG000024) / Text panel (EC001426)                                                                                                                   |   |          |
| Electric engineering, automation, process control engineering / Control / Operate and Observe (HMI) / Text panel (HMI) (ecl@ss8.1-27-24-23-04 [BAA724010]) |   |          |
| Supply voltage AC 50 Hz                                                                                                                                    | V | 85 - 264 |
| Supply voltage AC 60 Hz                                                                                                                                    | V | 85 - 264 |
| Supply voltage DC                                                                                                                                          | V | 0 - 0    |
| Voltage type of supply voltage                                                                                                                             |   | AC/DC    |
| Number of HW-interfaces industrial Ethernet                                                                                                                |   | 0        |
| Number of HW-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                                                                                                                              |   | 2        |
| Supporting protocol for TCP/IP                                                                                                                             |   | No       |
| 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                               |
| Type of display                                     |       | LCD with background illumination |
| Number of display lines                             |       | 4                                |
| Number of characters per line                       |       | 16                               |
| Max. character height, display                      | mm    | 32                               |
| Useful project memory/user memory                   | kByte | 0                                |
| With numeric keyboard                               |       | No                               |
| With alpha numeric keyboard                         |       | No                               |
| Number of function buttons, programmable            |       | 4                                |
| Number of buttons with LED                          |       | 0                                |
| Number of system buttons                            |       | 0                                |
| With message indication                             |       | Yes                              |
| With message system (incl. buffer and confirmation) |       | No                               |
| Process value representation (output) possible      |       | Yes                              |
| Process default value (input) possible              |       | Yes                              |
| With recipes                                        |       | No                               |
| Number of password levels                           |       | 1                                |
| Printer output available                            |       | No                               |
| Number of online languages                          |       | 13                               |
| Degree of protection (IP), front side               |       | IP65                             |
| Operation temperature                               | °C    | -25 - 55                         |
| Graphic objects presentable                         |       | No                               |
| Suitable for safety functions                       |       | No                               |
| Width of the front                                  | mm    | 86.5                             |
| Height of the front                                 | mm    | 86.5                             |
| Built-in depth                                      | mm    | 36.2                             |

## 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                                                                                            |
| 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 "power supply unit, communication module" IL05013018Z (AWA2528-2175)

Instruction leaflet "power supply unit, communication module" IL05013018Z (AWA2528-2175)

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05013018Z.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013018Z.pdf)

### Manual "MFD-CP4, power supply unit/communication module" MN05013011Z (AWB2528-1548)

Handbuch MFD-CP4, Netzteil-Kommunikationsmodul MN05013011Z (AWB2528-1548) - Deutsch

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013011Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013011Z_DE.pdf)

Manual "MFD-CP4, power supply unit/communication module" MN05013011Z (AWB2528-1548) - English

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05013011Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013011Z_EN.pdf)