



## Compact PLC, 24 V DC, ethernet, RS232, RS485, PROFIBUS DP

**Part no.** XC-152-D8-11  
**Article no.** 167849  
**Catalog No.** XC-152-D8-11

### Delivery program

|                                |  |       |                                                                                            |
|--------------------------------|--|-------|--------------------------------------------------------------------------------------------|
| Product range                  |  |       | SmartWire-DT PLC                                                                           |
| Operating system               |  |       | Windows CE 5.0 (licence incl.)                                                             |
| PLC-licence                    |  |       | CoDeSys Runtime (licence inclusive)                                                        |
| Integrated Web server          |  |       | yes                                                                                        |
| Built-in interfaces            |  |       | 1 x Ethernet 10/100 Mbps<br>1 x RS232<br>1 x RS485<br>1 x USB host 2.0<br>1 x PROFIBUS/MPI |
| Slots                          |  |       | 1 x SD Slot                                                                                |
| <b>Memory</b>                  |  |       |                                                                                            |
| Application/marker/retain data |  | KByte | 64 MB/4 KB/32 KB                                                                           |

### Technical data

#### General

|                        |   |    |                   |
|------------------------|---|----|-------------------|
| Standards              |   |    | EN 61131, UL 508  |
| Approvals              |   |    | CE, cULus         |
| Ambient temperature    |   | °C | 0 - +55           |
| Storage                | θ | °C | -20 - +60         |
| Degree of Protection   |   |    | IP20              |
| Battery (service life) |   |    | normally 10 years |
| Weight                 |   | kg | 0.46              |

#### Power supply

|                          |                |      |                                                                                                 |
|--------------------------|----------------|------|-------------------------------------------------------------------------------------------------|
| Supply voltage           |                | V DC | 24                                                                                              |
| Permissible range        | U <sub>e</sub> |      | 18 - 30 V DC                                                                                    |
| Maximum power loss       | P <sub>v</sub> | W    | 8.5                                                                                             |
| Note on heat dissipation |                |      | Heat dissipation with power consumption for 24 V<br>6 W for basic device + 2.5 W for USB module |

#### CPU

|           |  |  |                           |
|-----------|--|--|---------------------------|
| Processor |  |  | RISC CPU, 32 Bit, 400 MHz |
|-----------|--|--|---------------------------|

#### Memory

|                                                |  |    |               |
|------------------------------------------------|--|----|---------------|
| Program code/program data                      |  |    | 64MB          |
| Cycle time for 1 k of instructions (Bit, Byte) |  | ms | Normally 0.04 |

#### Interfaces

|                       |  |        |                                         |
|-----------------------|--|--------|-----------------------------------------|
| Basic interfaces      |  |        |                                         |
| Ethernet              |  |        |                                         |
| Profile               |  |        | FTP<br>SMTP<br>HTTP<br>TCP<br>UDP<br>IP |
| Data transfer rate    |  | MBit/s | 100Base-TX<br>10Base-T                  |
| Potential isolation   |  |        | 500 V <sub>r.m.s.</sub>                 |
| Programming interface |  |        | yes                                     |
| Connections           |  |        | RJ45                                    |
| USB                   |  |        |                                         |
| USB Host              |  |        | USB 2.0                                 |
| Potential isolation   |  |        | None                                    |
| USB device            |  |        | USB 2.0                                 |
| Potential isolation   |  |        | None                                    |
| additional interfaces |  |        |                                         |
| PROFIBUS              |  |        |                                         |

|                       |  |        |                       |
|-----------------------|--|--------|-----------------------|
|                       |  |        | ✓                     |
| Profile               |  |        | DP V1<br>MPI (Master) |
| Data transfer rate    |  | kbit/s | max. 1500             |
| Potential isolation   |  |        | None                  |
| Module                |  | Count  | 126                   |
| Connections           |  |        | 9-pin D-sub (socket)  |
| CAN                   |  |        |                       |
|                       |  |        | —                     |
| SmartWire-DT          |  |        |                       |
|                       |  |        | —                     |
| RS485                 |  |        |                       |
|                       |  |        | —                     |
| RS232                 |  |        |                       |
|                       |  |        | ✓                     |
| Data transfer rate    |  | kbit/s | max. 57.6             |
| Potential isolation   |  |        | None                  |
| Connections           |  |        | 9-pin D-sub (plug)    |
| RTC (real-time clock) |  |        | yes                   |

## Design verification as per IEC/EN 61439

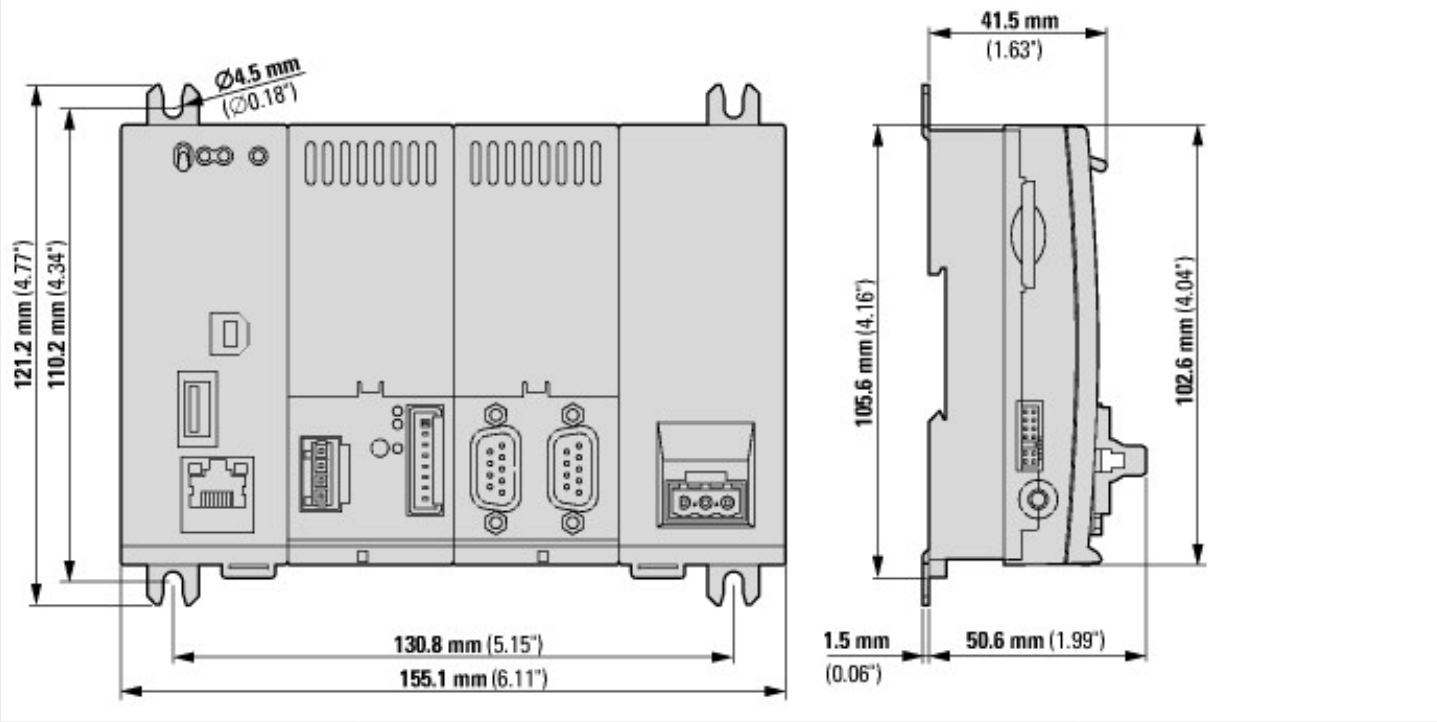
|                                                                                                                        |            |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |            |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | $I_n$      | A  | 0                                                                                                                                |
| Heat dissipation per pole, current-dependent                                                                           | $P_{vid}$  | W  | 0                                                                                                                                |
| Equipment heat dissipation, current-dependent                                                                          | $P_{vid}$  | W  | 0                                                                                                                                |
| Static heat dissipation, non-current-dependent                                                                         | $P_{vs}$   | W  | 6                                                                                                                                |
| Heat dissipation capacity                                                                                              | $P_{diss}$ | W  | 0                                                                                                                                |
| Operating ambient temperature min.                                                                                     |            | °C | 0                                                                                                                                |
| 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) / PLC device set (EC002581)                                                                                                                    |  |     |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / PLC device set (ecl@ss8.1-27-24-22-19 [BAA707010]) |  |     |
| Contains function building blocks                                                                                                                               |  | Yes |
| Contains basic device                                                                                                                                           |  | Yes |
| Contains module rack                                                                                                                                            |  | No  |
| Contains power supply                                                                                                                                           |  | Yes |
| Contains analogue input module                                                                                                                                  |  | No  |
| Contains analogue output module                                                                                                                                 |  | No  |
| Contains digital input module                                                                                                                                   |  | No  |
| Contains digital output module                                                                                                                                  |  | No  |
| Contains function module                                                                                                                                        |  | Yes |
| Contains technology modle                                                                                                                                       |  | Yes |
| Contains communication module                                                                                                                                   |  | Yes |
| Contains memory unit                                                                                                                                            |  | Yes |
| Contains simulation module                                                                                                                                      |  | No  |
| Contains connection cable                                                                                                                                       |  | No  |
| Contains control unit                                                                                                                                           |  | No  |
| Contains monitor                                                                                                                                                |  | No  |
| Contains programming software                                                                                                                                   |  | No  |
| Contains engineering software                                                                                                                                   |  | Yes |
| Contains visualization                                                                                                                                          |  | Yes |
| Contains libraries                                                                                                                                              |  | Yes |
| Contains documentation                                                                                                                                          |  | Yes |
| Contains other components                                                                                                                                       |  | Yes |
| Software preinstalled                                                                                                                                           |  | No  |

Dimensions



Additional product information (links)

|                                                      |                                                                                                                                                                       |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instruction leaflet "XC-152 compact PLC" IL05003006Z |                                                                                                                                                                       |
| Instruction leaflet "XC-152 compact PLC" IL05003006Z | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05003006Z2012_12.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05003006Z2012_12.pdf</a> |
| MN04802006Z Operator manual XV-152                   |                                                                                                                                                                       |

|                                                                                  |                                                                                                                                                     |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| MN04802006Z Betriebsanleitung XV-152 - Deutsch                                   | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_DE.pdf</a> |
| MN04802006Z Operator manual XV-152 - English                                     | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_EN.pdf</a> |
| <b>MN04802013Z quick-start instructions XV100</b>                                |                                                                                                                                                     |
| MN04802013Z Schnellstartanleitung XV100 - Deutsch                                | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_DE.pdf</a> |
| MN04802013Z quick-start instructions XV100 - English                             | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_EN.pdf</a> |
| <b>MN05003007Z User manual XSoft-CoDeSys-2, PLC programming XC152</b>            |                                                                                                                                                     |
| MN05003007Z Benutzerhandbuch XSoft-CoDeSys-2, SPS-Programmierung XC152 - Deutsch | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z-DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z-DE.pdf</a> |
| MN05003007Z Benutzerhandbuch XSoft-CoDeSys-2, SPS-Programmierung XC152 - Deutsch | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z_DE.pdf</a> |
| MN05003007Z User manual XSoft-CoDeSys-2, PLC programming XC152 - English         | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z-EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z-EN.pdf</a> |
| MN05003007Z User manual XSoft-CoDeSys-2, PLC programming XC152 - English         | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003007Z_EN.pdf</a> |
| <b>MN048008ZU Manual XSOFT-CODESYS-3, PLC programming</b>                        |                                                                                                                                                     |
| MN048008ZU Handbuch XSOFT-CODESYS-3, SPS-Programmierung - Deutsch                | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_DE.pdf</a>   |
| MN048008ZU Manual XSOFT-CODESYS-3, PLC programming - English                     | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_EN.pdf</a>   |