



Touch panel, 24 V DC, 7z, TFTcolor, ethernet, RS485, CAN, SWDT, PLC



**Part no.** XV-102-E6-70TWRC-10  
**Catalog No.** 153527  
**Alternate Catalog No.** XV-102-E6-70TWRC-10  
**EL-Nummer (Norway)** 4521132

### Delivery program

|                                             |  |       |                                                                                                                         |
|---------------------------------------------|--|-------|-------------------------------------------------------------------------------------------------------------------------|
| Product range                               |  |       | XV100 7"                                                                                                                |
| Product range                               |  |       | XV-102                                                                                                                  |
| Subrange                                    |  |       | SmartWire-DT touch display with integrated controller (HMI PLC)                                                         |
| Function                                    |  |       | SmartWire-DT coordinator                                                                                                |
| Description                                 |  |       | XV100 touch display with PLC function for flush mounting plates                                                         |
| Description                                 |  |       | Coordinator for the SmartWire-DT communications system                                                                  |
| Common features of the model series         |  |       | Ethernet interface<br>USB device<br>USB Host<br>Slot for SD card<br>UL508, cUL approvals                                |
| Display - Type                              |  |       | Color display, TFT                                                                                                      |
| Touch-technology                            |  |       | Resistive-Touch                                                                                                         |
| Number of colours                           |  |       | 64 k Colours                                                                                                            |
| Resolution                                  |  | Pixel | WVGA<br>800 x 480                                                                                                       |
| Portrait format                             |  |       | yes                                                                                                                     |
| Screen diagonal                             |  | Inch  | 7                                                                                                                       |
| Model                                       |  |       | Insulating enclosure and front plate                                                                                    |
| Operating system                            |  |       | Windows CE 5.0 (licence incl.)                                                                                          |
| PLC-licence                                 |  |       | PLC licence inclusive                                                                                                   |
| License certificates for onboard interfaces |  |       | Not required                                                                                                            |
| built-in interfaces                         |  |       | 1 x Ethernet 10/100 Mbps<br>1 x RS485<br>1 x USB host 2.0<br>1 x USB device<br>1 x CANopen®/easyNet<br>1 x SmartWire-DT |
| Front type                                  |  |       | Standard front with standard membrane (fully enclosed)                                                                  |
| Utilization                                 |  |       | Flush mounting                                                                                                          |
| Slots                                       |  |       | for SD card: 1                                                                                                          |
| Memory card automation                      |  |       | Optionally with SD card -> article no. 139807                                                                           |
| Pluggable communication cards (optional)    |  |       | no                                                                                                                      |
| Touch sensor                                |  |       | Glass with film                                                                                                         |
| Heat dissipation                            |  | W     | 9.5                                                                                                                     |
| Connection to SmartWire-DT                  |  |       | yes                                                                                                                     |

### Technical data

|                               |  |                   |                              |
|-------------------------------|--|-------------------|------------------------------|
| <b>Display</b>                |  |                   |                              |
| Display - Type                |  |                   | Color display, TFT           |
| Screen diagonal               |  | Inch              | 7                            |
| Resolution                    |  | Pixel             | WVGA<br>800 x 480            |
| Visible screen area           |  | mm                | 152 x 91                     |
| Number of colours             |  |                   | 64 k Colours                 |
| Contrast ratio (Normally)     |  |                   | Normally 300:1               |
| Brightness                    |  | cd/m <sup>2</sup> | Normally 250                 |
| Back-lighting                 |  |                   | LED<br>dimmable via software |
| Service life of back-lighting |  | h                 | Normally 40000               |

|                                   |  |  |                                |
|-----------------------------------|--|--|--------------------------------|
| Resistive touch protective screen |  |  | Touch sensor (glass with foil) |
|-----------------------------------|--|--|--------------------------------|

## Operation

|              |  |  |                           |
|--------------|--|--|---------------------------|
| Technology   |  |  | Resistive-Touch<br>4 wire |
| Touch sensor |  |  | Glass with film           |

## System

|                               |  |  |                                                                                                                                                                            |
|-------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                     |  |  | RISC CPU, 32 Bit, 400 MHz                                                                                                                                                  |
| Internal memory               |  |  | DRAM (OS, Program and data memory): 64 MByte<br>NAND-Flash (can be used for data backup): approx. 128 MByte available<br>NVRAM (retained data): approx. 32 KByte available |
| External memory               |  |  | SD Memory Card Slot: SDA Specification 1.00                                                                                                                                |
| Cooling                       |  |  | Fanless CPU and system cooling, natural convection-based passive cooling                                                                                                   |
| Back-up of real-time clock    |  |  |                                                                                                                                                                            |
| Battery (service life)        |  |  | non-replaceable, CR2032 soldered in                                                                                                                                        |
| Backup (time at zero voltage) |  |  | Normally 10 years                                                                                                                                                          |

## Engineering

|                              |  |  |                                                       |
|------------------------------|--|--|-------------------------------------------------------|
| Visualisation software       |  |  | GALILEO<br>EPAM<br>XSOF-TCODESYS-2<br>XSOF-TCODESYS-3 |
| PLC-Programming software     |  |  | XSOF-TCODESYS-2<br>XSOF-TCODESYS-3                    |
| Target and web visualization |  |  | Yes                                                   |
| PLC-licence                  |  |  | PLC licence inclusive                                 |
| Operating system             |  |  | Windows CE 5.0 (licence incl.)                        |

## Interfaces, communication


|                     |  |  |                                                                                                                         |
|---------------------|--|--|-------------------------------------------------------------------------------------------------------------------------|
| built-in interfaces |  |  | 1 x Ethernet 10/100 Mbps<br>1 x RS485<br>1 x USB host 2.0<br>1 x USB device<br>1 x CANopen®/easyNet<br>1 x SmartWire-DT |
| USB Host            |  |  | USB 2.0 (1.5 - 12 Mbit/s), not galvanically isolated                                                                    |
| USB device          |  |  | USB 2.0, not galvanically isolated                                                                                      |
| RS-232              |  |  | no                                                                                                                      |
| RS-485              |  |  | Yes                                                                                                                     |
| CAN                 |  |  | Yes                                                                                                                     |
| Profibus            |  |  | no                                                                                                                      |
| Slots               |  |  | for SD card: 1                                                                                                          |
| SmartWire-DT master |  |  | Yes                                                                                                                     |
| Ethernet            |  |  | 100Base-TX/10Base-T                                                                                                     |
| easyNet             |  |  | Yes                                                                                                                     |
| MPI                 |  |  | no                                                                                                                      |

## Power supply

|                                      |                   |    |                                                                                                                                                                                                                    |
|--------------------------------------|-------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage                      |                   |    | 24 V DC SELV (safety extra low voltage)                                                                                                                                                                            |
| permissible voltage                  |                   |    | Effective: 19.2-30.0 V DC (rated operating voltage -20%/+25%)<br>Absolute with ripple: 18,0-31,2 V DC<br>Battery powered: 18,0-31,2 V DC (rated operating voltage -25%/+30%)<br>35 V DC for a duration of < 100 ms |
| Voltage dips                         |                   | ms | ≤ 10 ms from rated voltage (24 V DC)<br>5 ms from undervoltage (19.2 V DC)                                                                                                                                         |
| Power consumption                    | P <sub>max.</sub> | W  | 10                                                                                                                                                                                                                 |
| Note on power consumption            |                   |    | Basic device<br>USB Slave to USB Host: 2.5<br>Total: 9.5                                                                                                                                                           |
| Heat dissipation                     |                   | W  | 9.5                                                                                                                                                                                                                |
| Note on heat dissipation             |                   |    | Heat dissipation with power consumption for 24 V<br>7 W for basic device + 2.5 W for USB module                                                                                                                    |
| Protection against polarity reversal |                   |    | yes                                                                                                                                                                                                                |
| Type of fuse                         |                   |    | Yes (fuse not accessible)                                                                                                                                                                                          |
| Potential isolation                  |                   |    | no potential isolation                                                                                                                                                                                             |

## General

|                  |  |  |                                                        |
|------------------|--|--|--------------------------------------------------------|
| Housing material |  |  | Plastic, gray                                          |
| Front type       |  |  | Standard front with standard membrane (fully enclosed) |

|                                                     |  |    |                                                                                                                                                                                             |
|-----------------------------------------------------|--|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions (W x H x D)                              |  | mm | 210 x 135 x 38                                                                                                                                                                              |
| flush mounted                                       |  |    | Clearance: W x H x D ≥ 30 mm (1.18")<br>Inclination from vertical: ±45° (if using natural convection)<br>Material thickness at the installation cutout: min. 2 mm (0.08"), max. 5 mm (0.2") |
| Weight                                              |  | kg | 0.6                                                                                                                                                                                         |
| Degree of protection (IEC/EN 60529, EN50178, VBG 4) |  |    | IP65 (at front), IP20 (at rear)                                                                                                                                                             |
| Approvals                                           |  |    |                                                                                                                                                                                             |
| Approvals                                           |  |    | cUL (UL508)<br>EAC                                                                                                                                                                          |
| Explosion protection (according to ATEX 94/9/EC)    |  |    | II 3D Ex II T70°C IP5x: Zone 22, Category 3D                                                                                                                                                |
| shipping classification                             |  |    | DNV GL                                                                                                                                                                                      |
|                                                     |  |    |                                                                                                           |
| Applied standards and directives                    |  |    |                                                                                                                                                                                             |
| EMC                                                 |  |    | (in relation to CE)<br>EN 61000-6-2<br>EN 61000-6-4<br>EN 61131-2                                                                                                                           |
| Explosion protection (relevant for CE)              |  |    | EN 60079-0<br>EN 61241-1<br>EN 13463_x                                                                                                                                                      |
| Product standards                                   |  |    | EN 50178<br>EN 61131-2                                                                                                                                                                      |
| Security                                            |  |    | EN 60950<br>UL 60950                                                                                                                                                                        |
| Mechanical shock resistance                         |  | g  | according to IEC 60068-2-27                                                                                                                                                                 |
| Vibration                                           |  |    | according to IEC/EN 60068-2-6                                                                                                                                                               |
| RoHS                                                |  |    | conform                                                                                                                                                                                     |

### Environmental conditions

|                                    |   |     |                          |
|------------------------------------|---|-----|--------------------------|
| Climatic environmental conditions  |   |     |                          |
| Air pressure (operation)           |   | hPa | 795 - 1080               |
| Temperature                        |   |     |                          |
| Storage / Transport                | θ | °C  | -20 - +60                |
| Operating ambient temperature min. |   | °C  | 0                        |
| Operating ambient temperature max. |   | °C  | + 50                     |
| Relative humidity                  |   |     |                          |
| Relative humidity                  |   |     | 10 - 95%, non-condensing |

### Supply voltage $U_{Aux}$

|                                           |           |   |                                                                                                                        |
|-------------------------------------------|-----------|---|------------------------------------------------------------------------------------------------------------------------|
| Rated operational voltage                 | $U_{Aux}$ | V | 24 V DC (-20/+25%)                                                                                                     |
| Residual ripple on the input voltage      |           | % | ≤ 5                                                                                                                    |
| Protection against polarity reversal      |           |   | Yes                                                                                                                    |
| Max. current                              | $I_{max}$ | A | 3                                                                                                                      |
| Note                                      |           |   | If contactors with a total power consumption > 3 A are connected, a power feeder module EU5C-SWD-PF1/2 has to be used. |
| Short-circuit rating                      |           |   | no, external fuse FAZ Z3                                                                                               |
| Potential isolation                       |           |   | No                                                                                                                     |
| Rated operating voltage of 24-V-DC slaves |           | V | typ. $U_{Aux} - 0.2$                                                                                                   |

### Supply voltage $U_{Pow}$

|                                                                            |           |   |                    |
|----------------------------------------------------------------------------|-----------|---|--------------------|
| Supply voltage                                                             | $U_{Pow}$ | V | 24 DC -20 % + 25 % |
| Input voltage ripple                                                       |           | % | ≤ 5                |
| Protection against polarity reversal                                       |           |   | yes                |
| Rated current                                                              | I         | A | 0.7                |
| Overload proof                                                             |           |   | yes                |
| Inrush current and duration                                                |           | A | 12.5 A/6 ms        |
| Heat dissipation at 24 V DC                                                |           | W | 1.0                |
| Potential isolation between $U_{Pow}$ and 15 V SmartWire-DT supply voltage |           |   | No                 |

|                       |  |     |     |
|-----------------------|--|-----|-----|
| Bridging voltage dips |  | ms  | 10  |
| Repetition rate       |  | s   | 1   |
| Status indication     |  | LED | yes |

### SmartWire-DT supply voltage

|                         |                                                                                                                                  |   |            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|---|------------|
| Rated operating voltage | $U_e$                                                                                                                            | V | 14,5 ± 3 % |
| max. current            | $I_{max}$                                                                                                                        | A | 0.7        |
| Note                    | If SmartWire-DT modules with a total power consumption > 0.7 A are connected, a power feeder module EU5C-SWD-PF2 has to be used. |   |            |
| Short-circuit rating    | Yes                                                                                                                              |   |            |

### Connection supply voltages

|                          |  |                 |                   |
|--------------------------|--|-----------------|-------------------|
| Connection type          |  |                 | Push in terminals |
| Solid                    |  | mm <sup>2</sup> | 0.2 - 1.5         |
| Flexible with ferrule    |  | mm <sup>2</sup> | 0.25 - 1.5        |
| UL/CSA solid or stranded |  | AWG             | 24 - 16           |

### SmartWire-DT network

|                               |  |     |                                                                     |
|-------------------------------|--|-----|---------------------------------------------------------------------|
| Station type                  |  |     | SmartWire-DT master                                                 |
| Number of SmartWire-DT slaves |  |     | 99                                                                  |
| Baud Rates                    |  | kBd | 125<br>250                                                          |
| Address allocation            |  |     | automatic                                                           |
| Status indication             |  |     | SmartWire-DT master LED: red/green<br>Configurations LED: red/green |
| Connections                   |  |     | Plug, 8-pole                                                        |
| Plug connector                |  |     | Blade terminal SWD4-8MF2                                            |

## 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  | 9.5                                                                                                                              |
| Heat dissipation capacity                                                                                              | $P_{diss}$ | W  | 0                                                                                                                                |
| Operating ambient temperature min.                                                                                     |            | °C | 0                                                                                                                                |
| Operating ambient temperature max.                                                                                     |            | °C | 50                                                                                                                               |
| 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                                                                       |            |    |                                                                                                                                  |
|                                                                                                                        |            |    | Please enquire                                                                                                                   |
| 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 8.0

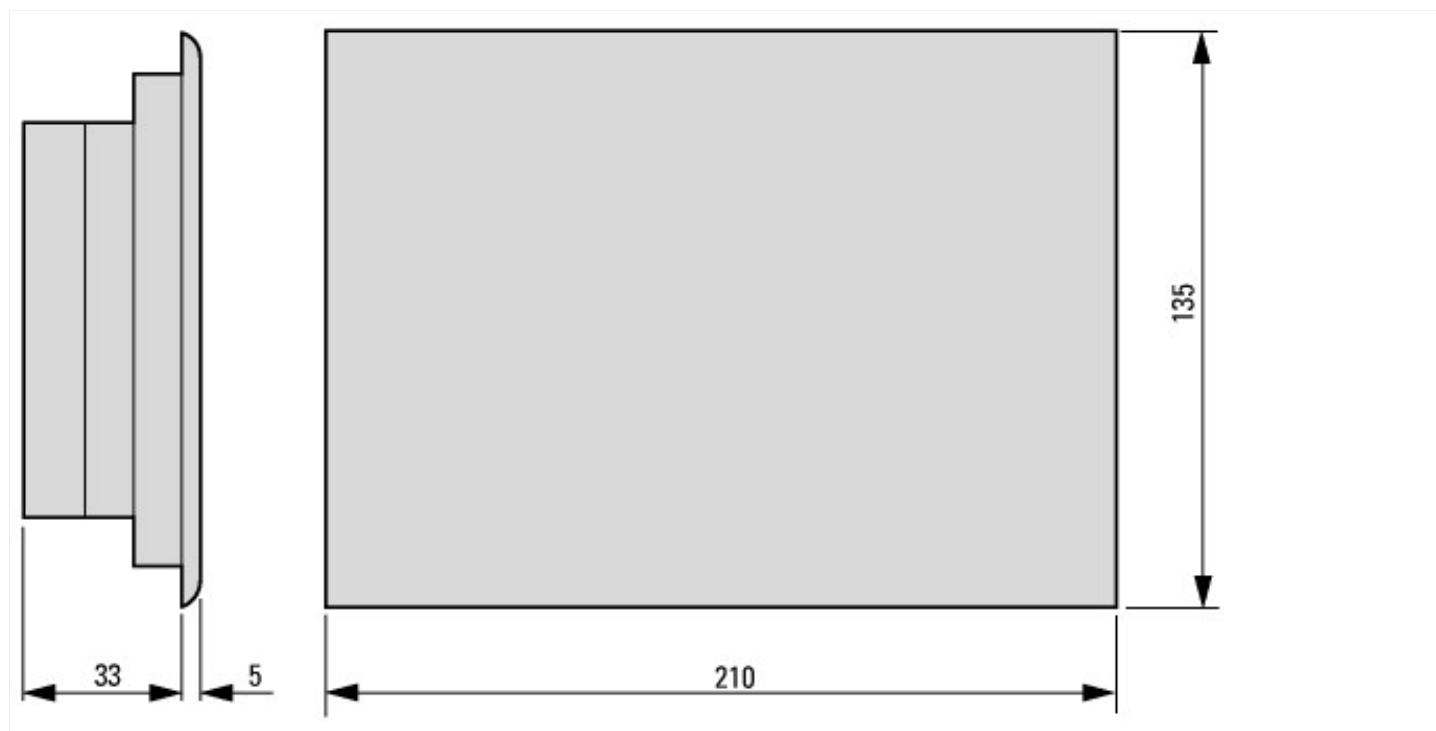
|                                                                                                                                                                          |      |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------|
| Programmable logic controllers PLC (EG000024) / Graphic panel (EC001412)                                                                                                 |      |             |
| Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Graphic panel (HMI) (ecl@ss10.0.1-27-33-02-01 [AFX016003]) |      |             |
| 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          |
| 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                                                                                                                                           |      | 1           |
| Number of HW-interfaces serial TTY                                                                                                                                       |      | 0           |
| Number of HW-interfaces USB                                                                                                                                              |      | 2           |
| Number of HW-interfaces parallel                                                                                                                                         |      | 0           |
| Number of HW-interfaces Wireless                                                                                                                                         |      | 0           |
| Number of HW-interfaces other                                                                                                                                            |      | 1           |
| With SW interfaces                                                                                                                                                       |      | Yes         |
| Supporting protocol for TCP/IP                                                                                                                                           |      | Yes         |
| Supporting protocol for PROFIBUS                                                                                                                                         |      | No          |
| Supporting protocol for CAN                                                                                                                                              |      | Yes         |
| 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                                                                                                                                      |      | Yes         |
| 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                                                                                                                                |      | Yes         |
| Radio standard Bluetooth                                                                                                                                                 |      | No          |
| Radio standard Wi-Fi 802.11                                                                                                                                              |      | No          |
| Radio standard GPRS                                                                                                                                                      |      | No          |
| Radio standard GSM                                                                                                                                                       |      | No          |
| Radio standard UMTS                                                                                                                                                      |      | No          |
| IO link master                                                                                                                                                           |      | No          |
| Type of display                                                                                                                                                          |      | TFT         |
| With colour display                                                                                                                                                      |      | Yes         |
| Number of colours of the display                                                                                                                                         |      | 65536       |
| Number of grey-scales/blue-scales of display                                                                                                                             |      | 0           |
| Screen diagonal                                                                                                                                                          | inch | 7           |

|                                                     |  |       |                 |
|-----------------------------------------------------|--|-------|-----------------|
| Number of pixels, horizontal                        |  |       | 800             |
| Number of pixels, vertical                          |  |       | 480             |
| Useful project memory/user memory                   |  | kByte | 64000           |
| With numeric keyboard                               |  |       | Yes             |
| With alpha numeric keyboard                         |  |       | Yes             |
| Number of function buttons, programmable            |  |       | 0               |
| Number of buttons with LED                          |  |       | 0               |
| Number of system buttons                            |  |       | 1               |
| Touch technology                                    |  |       | Resistive touch |
| With message indication                             |  |       | Yes             |
| With message system (incl. buffer and confirmation) |  |       | Yes             |
| Process value representation (output) possible      |  |       | Yes             |
| Process default value (input) possible              |  |       | Yes             |
| With recipes                                        |  |       | Yes             |
| Number of password levels                           |  |       | 200             |
| With printer output                                 |  |       | Yes             |
| Number of online languages                          |  |       | 100             |
| Additional software components, loadable            |  |       | Yes             |
| Degree of protection (IP), front side               |  |       | IP65            |
| Degree of protection (NEMA), front side             |  |       | 4X              |
| Operating temperature                               |  | °C    | 0 - 50          |
| Rail mounting possible                              |  |       | No              |
| Wall mounting/direct mounting                       |  |       | No              |
| Suitable for safety functions                       |  |       | No              |
| Width of the front                                  |  | mm    | 210             |
| Height of the front                                 |  | mm    | 135             |
| Built-in depth                                      |  | mm    | 33              |

## Approvals

|                                  |  |  |                                              |
|----------------------------------|--|--|----------------------------------------------|
| Product Standards                |  |  | UL508, cULus; IEC/EN 61131-2, CE             |
| UL File No.                      |  |  | E205091                                      |
| UL Category Control No.          |  |  | NRAQ                                         |
| CSA File No.                     |  |  | UL report applies to US and Canada           |
| CSA Class No.                    |  |  | -                                            |
| North America Certification      |  |  | UL listed, certified by UL for use in Canada |
| Current Limiting Circuit-Breaker |  |  | No                                           |
| Degree of Protection             |  |  | IEC:IP20, UL/CSA Tape: open type             |

## Dimensions



## Additional product information (links)

|                                                                                  |                                                                                                                                                                   |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Instruction leaflet IL048007ZU XV-102</b>                                     |                                                                                                                                                                   |
| Instruction leaflet IL048007ZU XV-102                                            | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL048007ZU.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL048007ZU.pdf</a> |
| <b>Instruction manual XV-102 MN04802004Z</b>                                     |                                                                                                                                                                   |
| Bedienungsanleitung XV-102 MN04802004Z - Deutsch                                 | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802004Z_DE.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802004Z_DE.pdf</a>   |
| Instruction manual XV-102 MN04802004Z - English                                  | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802004Z_EN.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802004Z_EN.pdf</a>   |
| <b>Quick-start manual XV100 MN04802013Z</b>                                      |                                                                                                                                                                   |
| Schnellstart-Handbuch XV100 MN04802013Z - Deutsch                                | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802013Z_DE.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802013Z_DE.pdf</a>   |
| Quick-start manual XV100 MN04802013Z - English                                   | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802013Z_EN.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802013Z_EN.pdf</a>   |
| <b>User manual XSoft-CoDeSys-2, SPS programming XV100 MN04802091Z</b>            |                                                                                                                                                                   |
| Benutzerhandbuch XSoft-CoDeSys-2, SPS-Programmierung XV100 MN04802091Z - Deutsch | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802091Z-DE.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN04802091Z-DE.pdf</a>   |
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| <b>Manual XSOF-CODESYS-3, SPS programming MN048008ZU</b>                         |                                                                                                                                                                   |
| Handbuch XSOF-CODESYS-3, SPS-Programmierung MN048008ZU - Deutsch                 | <a href="https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN048008ZU_DE.pdf">https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN048008ZU_DE.pdf</a>     |
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| SmartWire-DT product range catalog                                               | <a href="http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=10">http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=10</a>                   |
| Technical data                                                                   | <a href="http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=40">http://ecat.moeller.net/flip-cat/?edition=SWKAT&amp;startpage=40</a>                   |
| f1=1454&f2=1242&f3=1773;Download Software GALILEO                                | <a href="http://applications.eaton.eu/sdlc?LX=11&amp;mp">http://applications.eaton.eu/sdlc?LX=11&amp;mp</a>                                                       |
| Product overview (WEB)                                                           | <a href="http://www.eaton.eu/xv">http://www.eaton.eu/xv</a>                                                                                                       |