

Touch panel, 24 V DC, 8.4z, TFTcolor, ethernet, RS232, (PLC)



Part no. **XV-152-D0-84TVR-10**
150601
EL Number **4521146**
(Norway)

| General specifications | | |
|------------------------|--|--|
| Product name | | Eaton XV-152 Touch panel |
| Part no. | | XV-152-D0-84TVR-10 |
| EAN | | 7640130097131 |
| Product Length/Depth | | 275 millimetre |
| Product height | | 52.5 millimetre |
| Product width | | 208 millimetre |
| Product weight | | 2.15 kilogram |
| Certifications | | CUL508 UL UL508 IEC/EN 60079-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) CULus IEC/EN 61241-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) CSA Class No.: none IEC/EN 61000-6-2 IEC/EN 60950 Security: IEC/EN 61131-2 IEC/EN 61241-1 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) EN 50178 DNV GL UL File No.: E205091 UL Category Control No.: NRAQ EN 60950 IEC/EN 61000-6-4 CSA File No.: UL report applies to both US and Canada Certified by UL for use in Canada IEC/EN 61000-6-3 IEC/EN 61131-2, CE ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) UL 60950 UL 508 EAC |
| Product Tradename | | XV-152 |
| Product Type | | Touch panel |
| Product Sub Type | | None |
| Catalog Notes | | 12 W for basic device + 2.5 W for USB module 4-wire Technology Can be fitted by user with article no. 142581 LIC-PLC-MXP-COMPACT Heat dissipation with power consumption for 24 V License certificates for onboard interfaces not required Optionally with SD card -> article no. 139807 |
| Features & Functions | | |
| Enclosure material | | Metal, anodized |
| Features | | USB device Fanless CPU and system cooling, natural convection-based passive cooling Ethernet interface UL508, cUL approvals Slot for SD card Overload proof Portrait format USB Host |
| Fitted with: | | Message indication 1 x RS232 (built-in interface) 1 x USB device (built-in interface) Numeric keyboard Recipes SW interfaces Message system (incl. buffer and confirmation) Color display 1 x USB host 2.0 (built-in interface) Alpha numeric keyboard Printer output 1 x Ethernet 10/100 Mbps (built-in interfaces) |
| Functions | | Process default value (input) possible Process value representation (output) possible Additional software components, loadable |

| General information | |
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| Battery runtime | Back-up of real-time clock: CR 2032 (190 mA/h), zero maintenance (soldered) |
| Current consumption | 0.6 A, continuous current, Power Supply, 24 V DC |
| Degree of protection | NEMA 4X IP20 IP20, rear |
| Degree of protection (front side) | NEMA 4X IP65 |
| Fuse type | Built-in fuse (not accessible) |
| Lifespan | 40,000 h (Service life of back-lighting) |
| Model | Metal enclosure and front plate |
| Mounting method | Flush mounting Flush mounting - Clearance: Width x Height x Depth \geq 30 mm (1.18") Flush mounting - Inclination from vertical: $\pm 45^\circ$ (if using natural convection) |
| Product category | HMI-PLC (SPS function, retrofittable) |
| Repetition rate | 1 s |
| Residual ripple | \leq 5 % (input voltage) |
| RoHS conformity | Yes |
| Short-circuit protection | No, external fuse FAZ Z3, Supply voltage UAux Yes, Short-circuit rating, SmartWire-DT supply voltage |
| Software | XSOFT-CODESYS-2, Visualization software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering XSOFT-CODESYS-3, Visualization software, Engineering EPAM, Visualization software, Engineering GALILEO, Visualization software, Engineering |
| Terminal capacity | 24 - 16 AWG, solid or stranded 0.2 - 1.5 mm ² , solid 0.25 - 1.5 mm ² , flexible with ferrule |
| Voltage type | DC |
| Ambient conditions, mechanical | |
| Shock resistance | Mechanical, According to IEC/EN 60068-2-27 |
| Vibration resistance | According to IEC/EN 60068-2-6 |
| Climatic environmental conditions | |
| Air pressure | 795 - 1080 hPa (operation) |
| Ambient operating temperature - min | 0 °C |
| Ambient operating temperature - max | 50 °C |
| Ambient storage temperature - min | -20 °C |
| Ambient storage temperature - max | 60 °C |
| Operating temperature - min | 0 °C |
| Operating temperature - max | 50 °C |
| Relative humidity | 10 - 95 % (non-condensing) IEC/EN 50178 |
| Electro magnetic compatibility | |
| Voltage dips | \leq 10 ms from rated voltage (24 V DC) \leq 10 ms, Bridging voltage dips 5 ms from undervoltage (19.2 V DC) |
| Electrical rating | |
| Inrush current | 12.5 A (for 6 ms) |
| Permissible voltage | 18.0 - 31.2 V DC, absolute with ripple 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 35 V DC (for a duration of < 100 ms) |
| Power consumption | 9.5 W total 2.5 W (USB Slave to USB Host) Max. 12 W 12 W |
| Rated control supply voltage | 24 V DC (UAUX, -20 %/+25 %) 24 V DC (UPOW, -20 %/+25 %) |
| Rated operational current (Ie) | 0.7 A |
| Rated operational voltage | 24 V DC (power-supply - safety extra low voltage) 14.5 V (\pm 3 % - SmartWire-DT) |
| Supply current | 3 A, I _{max} , Supply voltage UAux 0.7 A, I _{max} , SmartWire-DT supply |
| Supply voltage at AC, 50 Hz - min | 0 V AC |

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| Supply voltage at AC, 50 Hz - max | | 0 V AC |
| Supply voltage at DC - min | | 20.4 V DC |
| Supply voltage at DC - max | | 28.8 V DC |
| Communication | | |
| Addressing | | Address set automatically |
| Connection | | SmartWire-DT blade terminal SWD4-8MF2 |
| Connection type | | Push in terminals, Supply voltage SWD: Plug, 8-pole |
| Data transfer rate | | 125 kBit/s, SmartWire-DT 250 kBit/s, SmartWire-DT |
| Interfaces | | Ethernet (100Base-TX/10Base-T) USB 2.0 device (not galvanically isolated) |
| LED indicator | | Status indication of Supply voltage: LED Status indication of SmartWire-DT network: Configurable green or red LED Status indication of SmartWire-DT master: Green and red LEDs |
| Number of slots | | 1 (for SD-Card) |
| Number of SmartWire-DT slaves | | 58 |
| Protocol | | Other bus systems TCP/IP MODBUS EtherNet/IP |
| Station | | SmartWire-DT master, SmartWire-DT network |
| Display | | |
| Display contrast ratio | | 300:1 |
| Display lighting | | Dimmable via software LED |
| Display size | | 170 x 128 mm |
| Display type | | TFT Standard front with standard membrane (fully enclosed) Color display, TFT |
| Luminance intensity | | 250 cd/m ² |
| Number of colors of the display | | 65536 |
| Screen size (diagonal) | | 8.4 in |
| Touch technology | | Glass with film touch sensor Touch sensor (glass with foil), Resistive touch protective screen Resistive touch |
| Input/Output | | |
| Resolution | | 640 x 480 px VGA |
| Safety | | |
| Explosion safety category for dust | | ATEX dust-ex-protection, in relation to CE ATEX dust-ex-protection, II 3D Ex II T70°C IP5x: Zone 22, Category 3D |
| Potential isolation | | UAUX: no Power supply: no Between UPow and 15 V SmartWire-DT supply voltage: no |
| Protection against polarity reversal | | Yes Yes, for supply voltage (Siemens MPI optional) |
| System | | |
| Backup time | | 10 years, typ. (time at zero voltage) |
| Memory | | 64 MByte internal DRAM (OS, Program and data memory) NOR-Flash: 2 MByte NAND-Flash (can be used for data backup): approx. 64 MByte available NVRAM (Retain data): 125 kByte SD Memory Card Slot: SDA Specification 1.00 (External) |
| Memory capacity | | 64,000 kByte |
| Operating system | | Windows CE 5.0 (license included) |
| Processor | | RISC CPU, 32 Bit, 400 MHz |
| Design verification | | |
| Equipment heat dissipation, current-dependent Pvid | | 14.5 W |
| Heat dissipation capacity Pdiss | | 0 W |
| Heat dissipation per pole, current-dependent Pvid | | 0 W |
| Rated operational current for specified heat dissipation (In) | | 0 A |
| Static heat dissipation, non-current-dependent Pvs | | 14.5 W |

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| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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. |
| 10.9.2 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 9.0

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| Programmable logic controllers PLC (EG000024) / Graphic panel (EC001412) | | |
| Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Graphic panel (HMI) (ecl@ss13-27-33-02-01 [AFX016008]) | | |
| 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 (supply voltage) | | DC |
| Power consumption | W | 9.5 |
| Number of HW-interfaces industrial Ethernet | | 1 |
| Number of interfaces PROFINET | | 0 |
| Number of HW-interfaces RS-232 | | 1 |
| Number of HW-interfaces RS-422 | | 0 |
| Number of HW-interfaces RS-485 | | 0 |
| Number of HW-interfaces serial TTY | | 0 |
| Number of HW-interfaces USB | | 2 |
| Number of HW-interfaces parallel | | 0 |
| Number of HW-interfaces wireless | | 0 |
| Number of HW-interfaces other | | 0 |
| With SW interfaces | | Yes |
| Supporting protocol for EtherCAT | | No |
| Supporting protocol for TCP/IP | | Yes |
| Supporting protocol for PROFIBUS | | No |
| Supporting protocol for CAN | | No |
| Supporting protocol for INTERBUS | | No |
| Supporting protocol for ASI | | No |
| Supporting protocol for KNX | | No |
| Supporting protocol for Modbus | | Yes |
| Supporting protocol for Data-Highway | | No |
| Supporting protocol for DeviceNet | | No |
| Supporting protocol for SUCONET | | No |
| Supporting protocol for LON | | No |
| Supporting protocol for PROFINET IO | | No |

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| 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 WLAN 802.11 | | No |
| Radio standard GPRS | | No |
| Radio standard GSM | | No |
| Radio standard UMTS | | No |
| IO link master | | No |
| Type of display | | TFT |
| Colour display | | Yes |
| Number of colours of the display | | 65536 |
| Number of grey-scales/blue-scales of display | | 0 |
| Screen diagonal | inch | 8.4 |
| Number of pixels, horizontal | | 640 |
| 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 |
| Certified for UL hazardous location class I | | No |
| Certified for UL hazardous location class II | | No |
| Certified for UL hazardous location class III | | No |
| Certified for UL hazardous location division 1 | | No |
| Certified for UL hazardous location division 2 | | No |
| Certified for UL hazardous location group A (acetylene) | | No |
| Certified for UL hazardous location group B (hydrogen) | | No |
| Certified for UL hazardous location group C (ethylene) | | No |
| Certified for UL hazardous location group D (propane) | | No |
| Certified for UL hazardous location group E (metal dusts) | | No |
| Certified for UL hazardous location group F (carbonaceous dusts) | | No |
| Certified for UL hazardous location group G (non-conductive dusts) | | No |
| Operating temperature | °C | 0 - 50 |
| Rail mounting possible | | No |

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| Wall mounting/direct mounting | | | No |
| Suitable for safety functions | | | No |
| Width of the front | | mm | 275 |
| Height of the front | | mm | 208 |
| Built-in depth | | mm | 47 |