DATASHEET - XV-152-E6-10TVRC-10

Touch panel, 24 V DC, 10.4z, TFTcolor, ethernet, RS485, CAN, SWDT, PLC

Part no.	**XV-152-E6-10TVRC-10**
	166704
EL Number (Norway)	**4521138**

Product name			Eaton XV-152 Touch panel
Part no.			XV-152-E6-10TVRC-10
EAN			7640130097742
Product Length/Depth			345 millimetre
Product height			54 millimetre
Product width			260 millimetre
Product weight			2.95 kilogram
Certifications			CSA Class No.: none UL Category Control No.: NRAQ EN 50178 IEC/EN 61131-2 Security: CULus CSA File No.: UL report applies to both US and Canada IEC/EN 60079-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) IEC/EN 60950 IEC/EN 61241-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) IEC/EN 61131-2, CE EN 60950 IEC/EN 61000-6-3 IEC/EN 61000-6-2 UL File No.: E205091 Certified by UL for use in Canada IEC/EN 61000-6-4 UL DNV GL UL508 IEC/EN 61241-1 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) UL 60950 UL 508 CUL508
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 Heat dissipation with power consumption for 24 V License certificates for onboard interfaces not required Optionally with SD card -> article no. 139807 PLC license inclusive
Enclosure material			Metal, anodized
Features			USB Host Slot for SD card Portrait format Target and web visualization Overload proof Fanless CPU and system cooling, natural convection-based passive cooling Ethernet interface USB device UL508, cUL approvals
Fitted with:			SW interfaces 1 x Ethernet 10/100 Mbps (built-in interfaces) Numeric keyboard Alpha numeric keyboard Message indication 1 x USB device (built-in interface) 1 x CANopen®/easyNet (built-in interfaces) 1 x RS485 (built-in interface) Recipes Printer output Color display 1 x USB host 2.0 (built-in interface) Message system (incl. buffer and confirmation) 1 x SmartWire-DT (built-in interface)
Functions			Process default value (input) possible Process value representation (output) possible Additional software components, loadable

SmartWire-DT coordination

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		IP20, rear NEMA 4X IP20
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 - Clearance: Width x Height x Depth ≥ 30 mm (1.18") Flush mounting - Inclination from vertical: ±45° (if using natural convection) Flush mounting
Product category		SmartWire-DT coordinators
Repetition rate		1 s
Residual ripple		≤ 5 % (input voltage)
RoHs conformity		Yes
Short-circuit protection		Yes, Short-circuit rating, SmartWire-DT supply voltage No, external fuse FAZ Z3, Supply voltage UAux
Software		GALILEO, Visualisation software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering EPAM, Visualisation software, Engineering XSOFT-CODESYS-2, Visualisation software, Engineering XSOFT-CODESYS-3, Visualisation software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering
Terminal capacity		0.2 - 1.5 mm², solid 24 - 16 AWG, solid or stranded 0.25 - 1.5 mm², 24 - 16 AWG
Type		Coordinator for the SmartWire-DT communications system
Voltage type		DC
Shock resistance		Mechanical, According to IEC/EN 60068-2-27
Vibration resistance		According to IEC/EN 60068-2-6
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
Voltage dips		5 ms from undervoltage (19.2 V DC) ≤ 10 ms from rated voltage (24 V DC) ≤ 10 ms, Bridging voltage dips
Inrush current		12.5 A (for 6 ms)
Permissible voltage		35 V DC (for a duration of < 100 ms) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 18.0 - 31.2 V DC, absolute with ripple
Power consumption		2.5 W (USB Slave to USB Host) 9.5 W total Max. 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) Typically UAUX -0.2 V (for 24 V DC slaves) 14.5 V (± 3 % - SmartWire-DT)
Supply current		0.7 A, Imax, SmartWire-DT supply 3 A, Imax, Supply voltage UAux

		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; SmartWire-DT supply If contactors with a total power consumption > 3 A are connected, a power feeder module EU5C-SWD-PF1/2 has to be used, Supply voltage UAux
Supply voltage at AC, 50 Hz - min		0
Supply voltage at AC, 50 Hz - max		0
Supply voltage at DC - min		20.4
Supply voltage at DC - max		28.8
Addressing		Address set automatically
Communication interface		SmartWire-DT master
Connection		SmartWire-DT blade terminal SWD4-8MF2
Connection to SmartWire-DT		Yes
Connection type		SWD: Plug, 8-pole Push in terminals, Supply voltage
Data transfer rate		250 kBit/s, SmartWire-DT 125 kBit/s, SmartWire-DT
Interfaces		CAN easyNet Ethernet (100Base-TX/10Base-T) USB 2.0 device (not galvanically isolated) RS485
LED indicator		Status indication of Supply voltage: LED Status indication of SmartWire-DT master: Green and red LEDs Status indication of SmartWire-DT network: Configurable green or red LED
Number of slots		1 (for SD-Card)
Number of SmartWire-DT slaves		99
Protocol		MODBUS TCP/IP EtherNet/IP Other bus systems CAN
Station		SmartWire-DT master, SmartWire-DT network
Display contrast ratio		300:1
Display lighting		Dimmable via software LED
Display size		211 x 158 mm
Display type		Color display, TFT Standard front with standard membrane (fully enclosed) TFT
Luminance intensity		250 cd/m²
Number of colors of the display		65536
Screen size (diagonal)		10.4 in
Touch technology		Resistive touch Glass with film touch sensor Touch sensor (glass with foil), Resistive touch protective screen
Resolution		640 x 480 px VGA
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		Between UPow and 15 V SmartWire-DT supply voltage: no UAUX: no Power supply: no
Protection against polarity reversal		Yes Yes, for supply voltage (Siemens MPI optional)
Backup time		10 years, typ. (time at zero voltage)
Memory		64 MByte internal DRAM (OS, Program and data memory) NVRAM (Retain data): 125 kByte NAND-Flash (can be used for data backup): approx. 64 MByte available NOR-Flash: 2 MByte 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
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
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 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		2
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		65,536
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	10.4
Number of pixels, horizontal		640
Number of pixels, vertical		480
Useful project memory/user memory	kByte	64,000
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	345
Height of the front	mm	260
Built-in depth	mm	49