Eaton 166703

Eaton XV-152 Touch panel, 24 V DC, 8.4z, TFTcolor, ethernet, RS485, profibus, SWDT, PLC

PRODUCT NAME	Eaton XV-152 Touch panel
CATALOG NUMBER	166703
PRODUCT LENGTH/DEPTH	275 mm
PRODUCT HEIGHT	52.5 mm
PRODUCT WIDTH	208 mm
PRODUCT WEIGHT	2.15 kg
CERTIFICATIONS	cULus IEC/EN 61241-1 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) UL Category Control No.: NRAQ IEC/EN 61000-6-4 Security: UL UL 508 UL 60950 Certified by UL for use in Canada IEC/EN 61131-2, CE IEC/EN 60950 EN 60950 UL508 IEC/EN 61131-2 UL File No.: E205091 CUL508 CSA File No.: UL report applies to both US and Canada CSA Class No.: none IEC/EN 60079-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc IIIC T70°C IP6x) IEC/EN 61241-0 (ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex tc

Powering Business Worldwide

IIIC T70°C IP6x)
IEC/EN 61000-6-2
IEC/EN 61000-6-3
DNV GL
ATEX 94/9/EG: Zone 22,
Category 3D (II 3D Ex tc
IIIC T70°C IP6x)
EN 50178

TYPE	Coordinator for the SmartWire-DT communications system
FEATURES	Overload proof Fanless CPU and system cooling, natural convection-based passive cooling Portrait format Slot for SD card USB Host Target and web visualization Ethernet interface USB device UL508, cUL approvals
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.
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

	eaton-operator-panels-dimensions-xv-touch-panel-dimensions-002.eps
	eaton-operator-panels-xv-touch-panel-3d-drawing-004.eps
	eaton-general-xv-touch-panel-symbol.eps

	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.
FITTED WITH:	Alpha numeric keyboard Color display 1 x Ethernet 10/100 Mbps (built-in interfaces) Numeric keyboard 1 x PROFIBUS/MPI (built-in interface) MPI interface Message indication Message system (incl. buffer and confirmation) 1 x SmartWire-DT (built-in interface) 1 x RS485 (built-in interface) 1 x USB device (built-in interface) Recipes Printer output SW interfaces 1 x USB host 2.0 (built-in interface)

FUSE TYPE	Built-in fuse (not accessible)
ADDRESSING	Address set automatically
CONNECTION TO SMARTWIRE-DT	Yes
ENCLOSURE MATERIAL	Metal, anodized
SUPPLY VOLTAGE AT AC, 50 HZ - MAX	0 VAC
SUPPLY VOLTAGE AT AC, 50 HZ - MIN	0 VAC
SUPPLY VOLTAGE AT AC, 60 HZ - MAX	0 VAC
SUPPLY VOLTAGE AT AC, 60 HZ - MIN	0 VAC
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC
WIDTH OF THE FRONT	275 mm
PRODUCT CATEGORY	SmartWire-DT coordinators
RESOLUTION	• 640 x 480 px • VGA
AIR PRESSURE	795 - 1080 hPa (operation)
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
DISPLAY SIZE	170 x 128 mm
BACKUP TIME	10 years, typ. (time at zero voltage)
MEMORY CAPACITY	64,000 kByte
AMBIENT OPERATING TEMPERATURE - MAX	50 °C
AMBIENT OPERATING TEMPERATURE - MIN	0 °C
AMBIENT STORAGE TEMPERATURE - MAX	60 °C
AMBIENT STORAGE TEMPERATURE - MIN	-20 °C
BUILT-IN DEPTH	47 mm
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	14.5 W

FRONT HEIGHT	208 mm
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
NUMBER OF BUTTONS (PROGRAMMABLE FUNCTION)	0
NUMBER OF BUTTONS WITH LED	0
NUMBER OF GREY-SCALES/BLUE-SCALES OF DISPLAY	0
NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET)	1
NUMBER OF HW-INTERFACES (OTHER)	2
BATTERY RUNTIME	Back-up of real-time clock: CR 2032 (190 mA/h), zero maintenance (soldered)
VOLTAGE TYPE	DC
CONNECTION	SmartWire-DT blade terminal SWD4-8MF2
OPERATING SYSTEM	Windows CE 5.0 (license included)
COMMUNICATION INTERFACE	PROFIBUS SmartWire-DT master
SOFTWARE	XSOFT-CODESYS-3, Visualization software, Engineering XSOFT-CODESYS-2, Visualization software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering EPAM, Visualization software, Engineering GALILEO, Visualization software, Engineering
MOUNTING METHOD	Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18") Flush mounting Flush mounting - Inclination from vertical:

	±45° (if using natural convection)
DISPLAY CONTRAST RATIO	300:1
NUMBER OF SLOTS	1 (for SD-Card)
DISPLAY LIGHTING	LED Dimmable via software
DISPLAY TYPE	Color display, TFT Standard front with standard membrane (fully enclosed) TFT
PROTECTION AGAINST POLARITY REVERSAL	Yes, for supply voltage (Siemens MPI optional) Yes
RELATIVE HUMIDITY	10 - 95 % (non-condensing) IEC/EN 50178
LIFESPAN	40,000 h (Service life of back-lighting)
RESIDUAL RIPPLE	≤ 5 % (input voltage)
CONNECTION TYPE	SWD: Plug, 8-pole Push in terminals, Supply voltage
RATED CONTROL SUPPLY VOLTAGE	24 V DC (UAUX, -20 %/+25 %) 24 V DC (UPOW, -20 %/+25 %)
INRUSH CURRENT	12.5 A (for 6 ms)
CURRENT CONSUMPTION	0.6 A, continuous current, Power Supply, 24 V DC
DATA TRANSFER RATE	250 kBit/s, SmartWire-DT 125 kBit/s, SmartWire-DT
DEGREE OF PROTECTION	IP20, rear NEMA 4X IP20
LUMINANCE INTENSITY	250 cd/m²
DEGREE OF PROTECTION (FRONT SIDE)	IP65 NEMA 4X
NUMBER OF COLORS OF THE DISPLAY	65536
STATION	SmartWire-DT master, SmartWire-DT network
VIBRATION RESISTANCE	According to IEC/EN 60068-2-6
PROCESSOR	RISC CPU, 32 Bit, 400 MHz
ROHS CONFORMITY	Yes
SUPPLY CURRENT	0.7 A, Imax, SmartWire-DT

	supply 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 3 A, Imax, Supply voltage UAux 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
MEMORY	SD Memory Card Slot: SDA Specification 1.00 (External) NAND-Flash (can be used for data backup): approx. 64 MByte available NVRAM (Retain data): 125 kByte NOR-Flash: 2 MByte 64 MByte internal DRAM (OS, Program and data memory)
FUNCTIONS	Additional software components, loadable Process default value (input) possible Process value representation (output) possible SmartWire-DT coordination
TOUCH TECHNOLOGY	Touch sensor (glass with foil), Resistive touch protective screen Glass with film touch sensor Resistive touch
MODEL	Metal enclosure and front plate
INTERFACES	Ethernet (100Base-TX/10Base-T) USB 2.0 device (not galvanically isolated) RS485
LED INDICATOR	Status indication of SmartWire-DT network: Configurable green or red LED

	Status indication of SmartWire-DT master: Green and red LEDs Status indication of Supply voltage: LED
VOLTAGE DIPS	5 ms from undervoltage (19.2 V DC) ≤ 10 ms, Bridging voltage dips ≤ 10 ms from rated voltage (24 V DC)
NUMBER OF HW-INTERFACES (PARALLEL)	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 (WIRELESS)	0
NUMBER OF INTERFACES (PROFINET)	0
NUMBER OF ONLINE/RUNTIME LANGUAGES	100
NUMBER OF PASSWORD LEVELS	200
NUMBER OF PIXELS (HORIZONTAL)	640
NUMBER OF PIXELS (VERTICAL)	480
NUMBER OF SMARTWIRE-DT SLAVES	99
NUMBER OF SYSTEM BUTTONS	1
OPERATING TEMPERATURE - MAX	50 °C
OPERATING TEMPERATURE - MIN	0 °C
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
REPETITION RATE	1 s

SCREEN SIZE (DIAGONAL)	8.4 in
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	14.5 W
PERMISSIBLE VOLTAGE	35 V DC (for a duration of < 100 ms) 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 %)
POTENTIAL ISOLATION	Between UPow and 15 V SmartWire-DT supply voltage: no Power supply: no UAUX: no
POWER CONSUMPTION	2.5 W (USB Slave to USB Host) 9.5 W total Max. 12 W 12 W
PROTOCOL	PROFIBUS Other bus systems EtherNet/IP MODBUS TCP/IP
RATED OPERATIONAL CURRENT (IE)	0.7 A
RATED OPERATIONAL VOLTAGE	24 V DC (power-supply - safety extra low voltage) 14.5 V (± 3 % - SmartWire-DT) Typically UAUX -0.2 V (for 24 V DC slaves)
SHORT-CIRCUIT PROTECTION	Yes, Short-circuit rating, SmartWire-DT supply voltage No, external fuse FAZ Z3, Supply voltage UAux
SHOCK RESISTANCE	Mechanical, According to IEC/EN 60068-2-27
TERMINAL CAPACITY	0.25 - 1.5 mm², 24 - 16 AWG 0.2 - 1.5 mm², solid 24 - 16 AWG, solid or stranded

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

: