DATASHEET - XP-503-10-A10-A01-1V

Panel PC with capacitive multi-touch (PCT), 10. 1", 2xEthernet, 2xUSB3.0, 1xRS232, 1xRS485, Visual Designer Runtime,ATEX

Part no.	XP-503-10-A10-A01-1V
Catalog No.	197670

Delivery program

Product range		Visualisation solutions XP
Product range		XP-503
Function		Industrial PC
Description		Panel PC with capacitive multitouch display
Common features of the model series		1.65 GHz dual-core CPU Powerful graphic processor 4GB DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory 2x Ethernet interface 10/100/1000 Mbps 2x USB host 3.0 1x RS232 1x RS485 1x DVI-I Windows Embedded Standard 7 Galileo Open Runtime License Approvals CE, cUL508, CUL Class 1 Div 2 in preparation
Display - Type		Color display, TFT
Touch-technology		Capacitive multi-touch technology (PCT)
Number of colours		262144 colors
Resolution	Pixel	WSVGA 1024 x 600
Portrait format		no
Screen diagonal	Inch	10.1
Model		Die-cast aluminum enclosure and glass front in aluminum frame
Operating system		Windows Embedded Standard 7 Kit "P" (32bit) VISUAL DESIGNER Runtime License
PLC-licence		Not offered by Eaton
License certificates for onboard interfaces		Not required
built-in interfaces		2 x Ethernet 1000/100/10 Mbps 2 x USB host 3.0 1 x RS232 1 x RS485 1 x DVI-I
Front type		Tempered glass with anti-reflective coating
Utilization		Flush mounting
Slots		For CFast memory cards: 1
Memory card automation		For CFast memory cards
Pluggable communication cards (optional)		no
Touch sensor		Multi-touch touch panel
Heat dissipation	W	29

Technical data

Display

Display - Type			Color display, TFT
Screen diagonal		Inch	10.1
Resolution		Pixel	WSVGA 1024 x 600
Visible screen area		mm	222.72 x 125.28
Format			16:9
Viewing range	[left/right/up/down]	° (Degrees)	70°/70°/70°/50°
Number of colours			262144 colors
Contrast ratio (Normally)			Normally 500:1

Brightness	cd/m^2	Normally 550
Back-lighting		Single LED (side-light type)
Service life of back-lighting	h	Normally 50000

Operation

Technology		Projected Capacitive Touch (PCT)
Touch sensor		Multi-touch touch panel

System

Processor		x86, DualCore 1.65Ghz
Internal memory		4 GB of DDR3 RAM, min. 32 GB SSD
External memory		Min. 4 GB of CFast removable memory
Cooling		Fanless CPU and system cooling, natural convection-based passive cooling
Back-up of real-time clock		
Battery (service life)		Replaceable, Lithium CR2032 (220 mAh, 3V)
Backup (time at zero voltage)		Normally 5 years

Engineering

Visualisation software		VISUAL DESIGNER
PLC-licence		Not offered by Eaton
Operating system		Windows Embedded Standard 7 Kit "P" (32bit) VISUAL DESIGNER Runtime License

Interfaces, communication

built-in interfaces		2 x Ethernet 1000/100/10 Mbps 2 x USB host 3.0 1 x RS232 1 x RS485 1 x DVI-I
USB Host		2 x USB 3.0
RS-232		Not galvanically isolated, 9-pin D-sub plug, UNC
RS-485		Not galvanically isolated, 9-pin D-sub plug, UNC
Slots		For CFast memory cards: 1
Ethernet		10/100/1000 Mbps

Power supply

Nominal voltage			24 V DC SELV (safety extra low voltage)
permissible voltage			18-36 V DC
Heat dissipation		W	29
Current consumption	I	A	max. 1.2 A

General

Housing material		Aluminium die-cast
Front type		Tempered glass with anti-reflective coating
Dimensions (W x H x D)	mm	276 x 179 x 81
flush mounted		Clearance: W x H ≥ 50 mm (1.97"), T ≥ 20 mm (0.79") Inclination from vertical: # ≦ ± 10 ° (if using natural convection) Mounting plate: min. 1.5 mm (0.06"), max. 4 mm
Weight	kg	2.7
Degree of protection (IEC/EN 60529, EN50178, VBG 4)		IP65 (in the front as per EN 60529-1), IP20 (on rear as per EN 60529-1), NEMA12 (as per NEMA 250-2003)
Approvals		
Approvals		cUL (UL508), ATEX
certificate		CE
Explosion protection (according to ATEX 94/9/EC)		II 3D Ex tc IIIC T70°C U
shipping classification		DNV GL
		TYPE APPROVED PRODUCT DNV·GL MARITIME
Applied standards and directives		
EMC		according to 2004/108/EC
Emitted interference		As per EN 55022:2010 Class A and EN 61000-6-4:2007
Interference immunity		As per EN 55024:2010 and EN 61000-6-2:2005 EN 61131-2:2007

Free fall, packaged		m	gemäß ICE/EN 60068-2-32
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			
Condensation			Non-condensing
Relative humidity			10 - 90%, non condensing

Design verification as per IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	P_{vs}	W	29
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	50
Degree of Protection			IP65 (in the front as per EN 60529-1), IP20 (on rear as per EN 60529-1) NEMA12 (as per NEMA 250-2003)
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. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

PLC's (EG000024) / Panel PC (EC001414)			
Information, communication and media technology / Computer system for industrial use / Industrial PC / Panel PC (ecl@ss10.0.1-19-20-01-03 [AFR616003])			
Supply voltage AC 50 Hz		V	
Supply voltage AC 60 Hz		V	
Supply voltage DC		V	
Voltage type of supply voltage			
Number of HW-interfaces industrial Ethernet			

Number of interfaces PROFINET		
Number of HW-interfaces RS-232		
Number of HW-interfaces RS-422		
Number of HW-interfaces RS-485		
Number of HW-interfaces serial TTY	°C	
Number of HW-interfaces USB		
Number of HW-interfaces parallel		
Number of HW-interfaces Wireless		
Number of HW-interfaces other		
Number of HW-interfaces SCSI		
Number of HW-interfaces PS2		
Supporting protocol for PROFIBUS		
Supporting protocol for CAN		
Supporting protocol for INTERBUS		
Supporting protocol for ASI		
Supporting protocol for KNX		
Supporting protocol for MODBUS		
Supporting protocol for Data-Highway		
Supporting protocol for DeviceNet		
Supporting protocol for SUCONET		
Supporting protocol for LON		
Supporting protocol for PROFINET IO		
Supporting protocol for PROFINET CBA		
Supporting protocol for SERCOS		
Supporting protocol for Foundation Fieldbus		
Supporting protocol for EtherNet/IP		
Supporting protocol for AS-Interface Safety at Work		
Supporting protocol for DeviceNet Safety		
Supporting protocol for INTERBUS-Safety		
Supporting protocol for PROFIsafe		
Supporting protocol for SafetyBUS p		
Supporting protocol for other bus systems		
Radio standard Bluetooth		
Radio standard WLAN 802.11		
Radio standard GPRS		
Radio standard GSM		
Radio standard UMTS		
IO link master		
Type of display		
Screen diagonal	inch	
Number of pixels, horizontal		
Number of pixels, vertical		
Preinstalled operating system		
Max. main memory	MB	
Integrated keyboard		
Number of function buttons		
Number of buttons with LED		
Number of system buttons		
With touch screen		
Mouse-cursor control integrated		
Degree of protection (IP), front side		
Degree of protection (NEMA)		
Operation temperature	°C	
With hard disc		
With CD-ROM drive		

With DVD-drive		
With CD-RW drive		
With DVD RW drive		
With floppy disc drive		
With other storage media		
Customer individual configuration		
Number of free AGP-slots		
Number of free PCI-slots		
Number of free ISA-slots		
Number of free PCMCIA-slots		
Rail mounting possible		
Wall mounting/direct mounting		
Front build in possible		
Rack-assembly possible		
Mounting type, table foot		
Mounting type, gallows mounting		
Suitable for safety functions		
Width of the front	mm	
Height of the front	mm	
Built-in depth	mm	

Approvals

Product Standards		UL508, cULus; CE
UL File No.		E205091
CSA File No.		C22.2. No. 142-M1987
North America Certification		UL listed, certified by UL for use in Canada
Specially designed for North America		No
Current Limiting Circuit-Breaker		No
Degree of Protection		IEC: IP65, UL/CSA Type: -

Dimensions
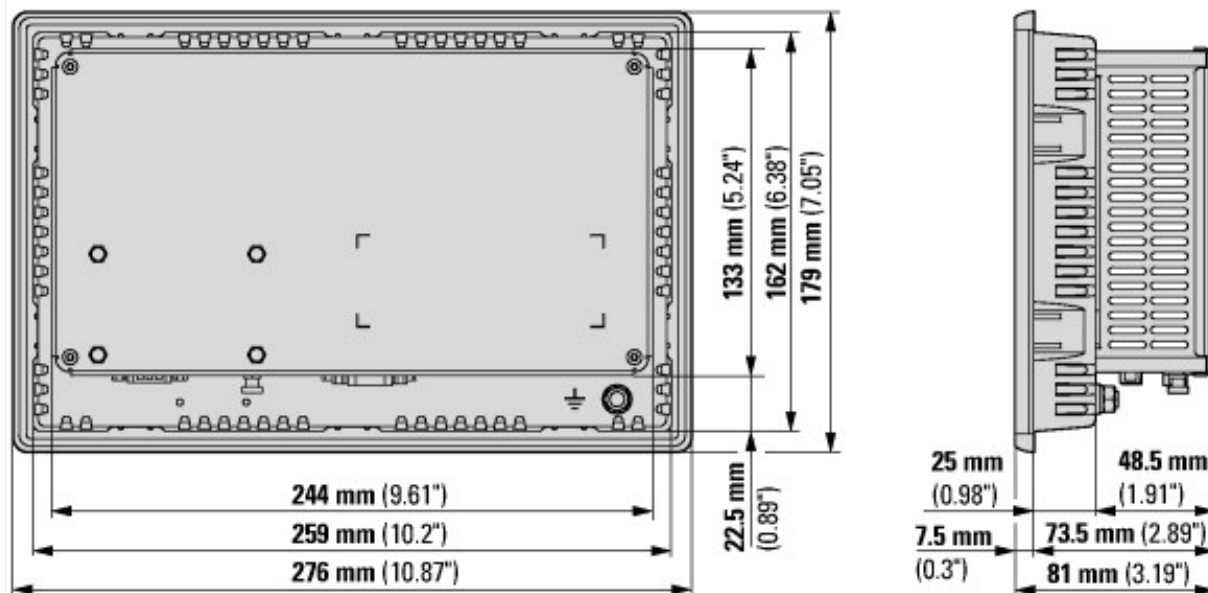
XP-503 industrial PC with 10.1" screen diagonal

a, b ≧ 50 mm, c ≧ 20 mm, ϑ 0 ≦ T ≦ 50 °C
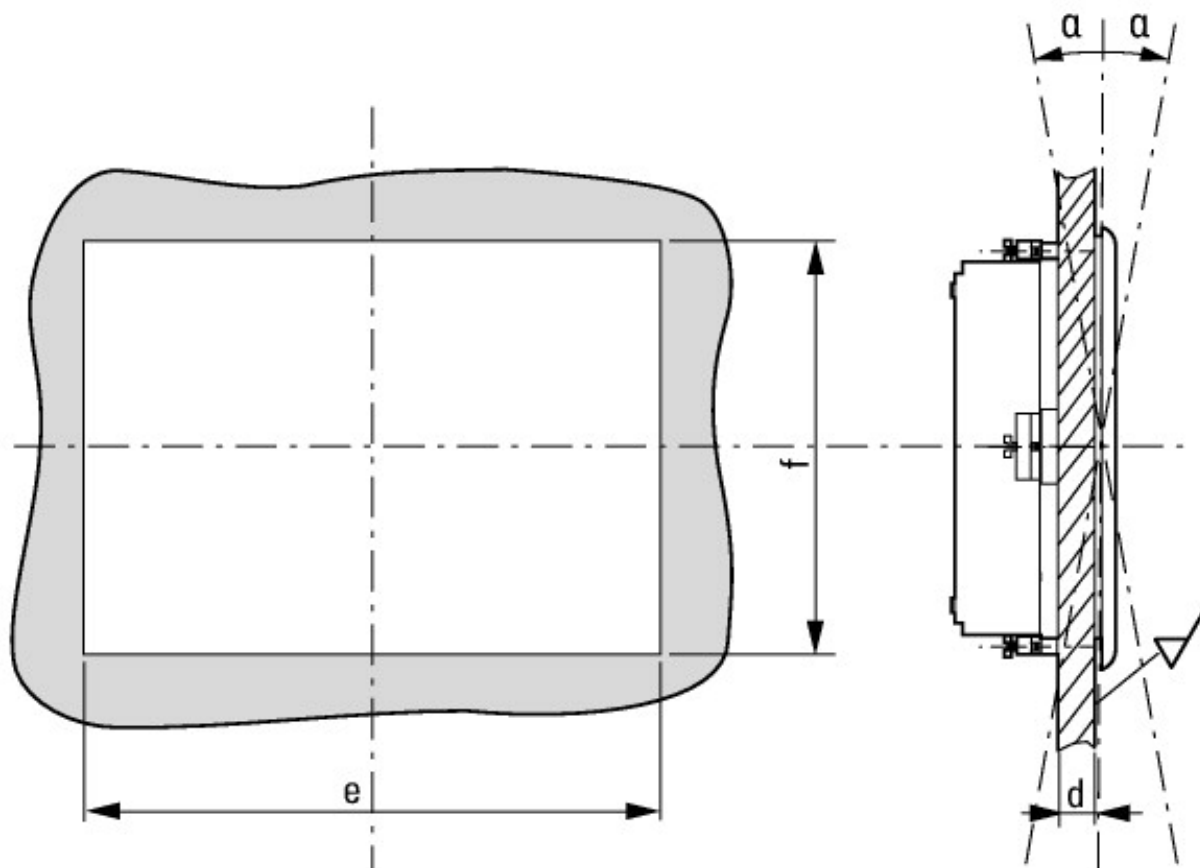
1.5 mm ≦ d ≦ 4 mm, e = 388 mm, f = 239 mm, # = 10°

Additional product information (links)

f1=1454&f2=1242&f3=1773;Download Software GALILEO	http://applications.eaton.eu/sdlc?LX=11&amp
Product overview (WEB)	http://www.eaton.eu/xp500

Additional product information (links)

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Product overview (WEB)	http://www.eaton.eu/xp500