



Panel PC with capacitive multi-touch (PCT), 21.5", 2xEthernet, 2xUSB3.0, 1xRS232, 1xRS485, Galileo Runtime License, Windows 10 Enterprise LTSC



Powering Business Worldwide™

Part no. **XP-503-21-A10-A00-2B**
 Catalog No. **199700**


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			16.7 mil.
Resolution		Pixel	WUXGA 1920 x 1080
Portrait format			no
Screen diagonal		Inch	21.5 widescreen
Model			Die-cast aluminum enclosure and glass front in aluminum frame
Operating system			Windows
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	41

Technical data

Display

Display - Type			Color display, TFT
Screen diagonal		Inch	21.5 widescreen
Resolution		Pixel	WUXGA 1920 x 1080
Visible screen area		mm	476.64 x 268.11
Format			16:9
Viewing range	[left/right/up/down]	° (Degrees)	89°/89°/89°/89°
Number of colours			16.7 mil.
Contrast ratio (Normally)			Normally 5000:1

Brightness		cd/m ²	Normally 300
Back-lighting			LED
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			Galileo or 3rd party
PLC-licence			Not offered by Eaton
Operating system			Windows
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	41
Current consumption	I	A	max. 1.7 A
General			
Housing material			Aluminium die-cast
Front type			Tempered glass with anti-reflective coating
Dimensions (W x H x D)		mm	536 x 328 x 84
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	7.55
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)
certificate			CE
shipping classification			DNV GL
			
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	8	°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	41
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 to enclosures without lifting aids.
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 to plastic enclosures.
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 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	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	18 - 36
Voltage type of supply voltage			DC
Number of HW-interfaces industrial Ethernet			2
Number of interfaces PROFINET			0
Number of HW-interfaces RS-232			1

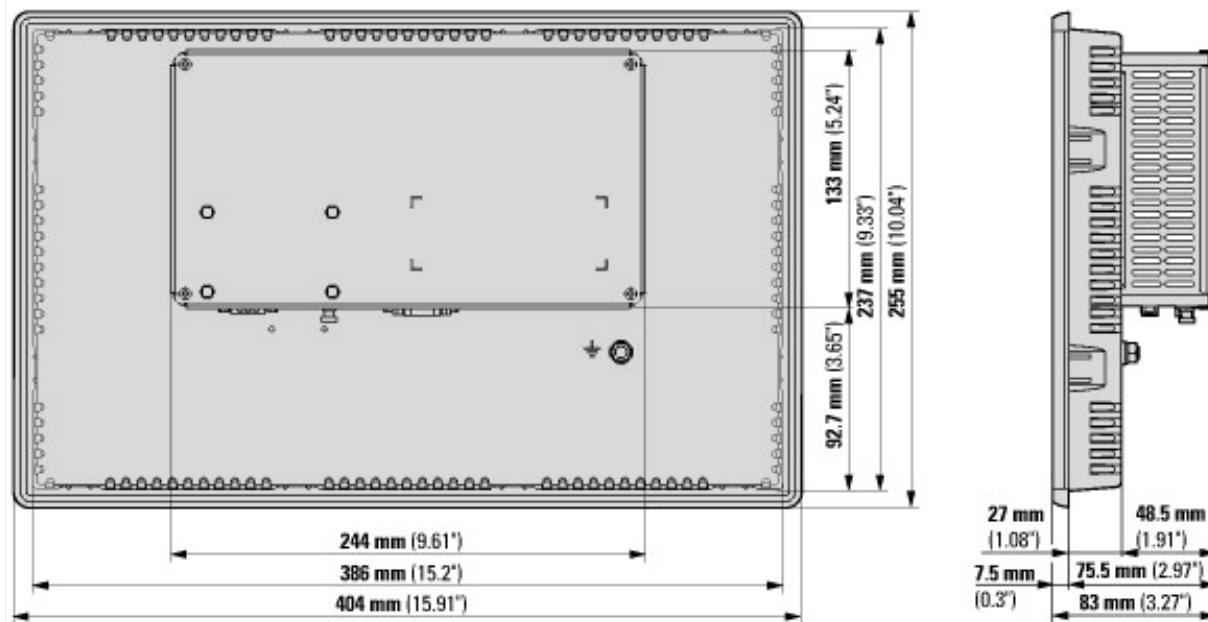
Number of HW-interfaces RS-422			0
Number of HW-interfaces RS-485			1
Number of HW-interfaces serial TTY			0
Number of HW-interfaces USB			2
Number of HW-interfaces parallel			0
Number of HW-interfaces Wireless			0
Number of HW-interfaces other			1
Number of HW-interfaces SCSI			0
Number of HW-interfaces PS2			0
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
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
Screen diagonal		inch	21.5
Number of pixels, horizontal			1920
Number of pixels, vertical			1080
Preinstalled operating system			Other
Max. main memory		MB	4000
Integrated keyboard			No
Number of function buttons			0
Number of buttons with LED			0
Number of system buttons			0
With touch screen			Yes
Mouse-cursor control integrated			Yes
Degree of protection (IP), front side			IP65
Degree of protection (NEMA)			12
Operation temperature		°C	0 - 50
With hard disc			No
With CD-ROM drive			No
With DVD-drive			No
With CD-RW drive			No

With DVD RW drive			No
With floppy disc drive			No
With other storage media			No
Customer individual configuration			Yes
Number of free AGP-slots			0
Number of free PCI-slots			0
Number of free ISA-slots			0
Number of free PCMCIA-slots			0
Rail mounting possible			No
Wall mounting/direct mounting			No
Front build in possible			Yes
Rack-assembly possible			No
Mounting type, table foot			No
Mounting type, gallows mounting			No
Suitable for safety functions			No
Width of the front		mm	536
Height of the front		mm	328
Built-in depth		mm	75.5

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: -

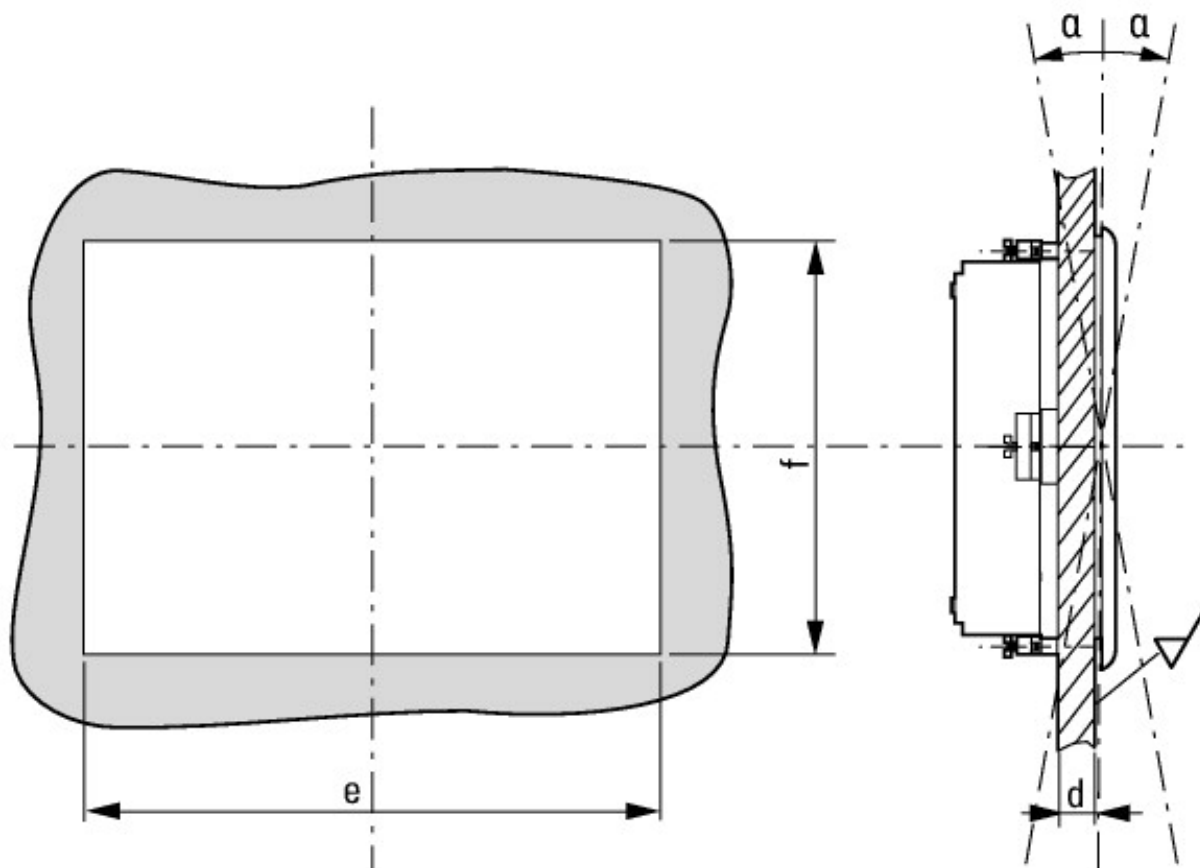
Dimensions



XP-503 industrial PC with 21.5" screen diagonal



$a, b \geq 50 \text{ mm}, c \geq 20 \text{ mm}, 0 \leq T \leq 50 \text{ }^\circ\text{C}$



$1,5 \text{ mm} \leq d \leq 4 \text{ mm}, e = 388 \text{ mm}, f = 239 \text{ mm}, \# = 10^\circ$

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