#### **DATASHEET - XP-503-21-A10-A00-1B**



Panel PC with capacitive multi-touch (PCT), 21. 5", 2xEthernet, 2xUSB3.0, 1xRS232, 1xRS485, Galileo Runtime License



Part no. XP-503-21-A10-A00-1B

Catalog No. 174476

**Alternate Catalog** 

XP-503-21-A10-A00-1B

No.

EL-Nummer

(Norway)

4560896

Similar to illustration

**Delivery program** 

Product range       Visualisation solutions XP         Product range       IPC XP-503         Subrange       Panel-PC         Function       Industrial PC         Description       Panel PC with capacitive multitouch display         Common features of the model series       Panel PC with capacitive multitouch display         Age DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory Approvals CE, cULSOR, 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 Embedded Standard 7 Kit *P' (64bit)			
Subrange Function Panel-PC Function Pescription Panel PC with capacitive multitouch display Common features of the model series Panel PC with capacitive multitouch display List GHz dual-core CPU Powerful graphic processor 4GB DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory Approvals CE, cUL508, CUL Class 1 Div 2 in preparation  Display - Type Color display, TFT Touch-technology Number of colours Fixel Pixel WUXGA 1920 x 1080 Portrait format  Screen diagonal  Inch 21.5 widescreen  Model  Die-cast aluminum enclosure and glass front in aluminum frame  Operating system  Windows Embedded Standard 7 Kit "P" (64bit)	oduct range		Visualisation solutions XP
Function  Description  Common features of the model series  Common features of the model series  Display - Type  Touch-technology  Number of colours  Resolution  Pixel  Pixel  WUXGA 1920 x 1080  Portrait format  Screen diagonal  Model  Die-cast aluminum enclosure and glass front in aluminum frame  Pixel  Die-cast aluminum enclosure and glass front in aluminum frame  Windows Embedded Standard 7 Kit "P" (64bit)	oduct range		IPC XP-503
Description  Common features of the model series  Common features of the model series  List GHz dual-core CPU Powerful graphic processor 4GB DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory Approvals CE, cULS08, CUL Class 1 Div 2 in preparation  Color display, TFT  Touch-technology  Number of colours  Resolution  Pixel WUXGA 1920 x 1080  Portrait format  Coreen diagonal  Inch Pixel Die-cast aluminum enclosure and glass front in aluminum frame  Operating system  Windows Embedded Standard 7 Kit *P* (64bit)	brange		Panel-PC
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   Approvals CE, cUL508, CUL Class 1 Div 2 in preparation	nction		Industrial PC
Powerful graphic processor 4GB DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory 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 Resolution Pixel WUXGA 1920 x 1080  Portrait format Creen diagonal Inch Screen diagonal Die-cast aluminum enclosure and glass front in aluminum frame  Operating system Windows Embedded Standard 7 Kit "P" (64bit)	scription		Panel PC with capacitive multitouch display
Touch-technology  Number of colours  Resolution  Pixel  WUXGA 1920 x 1080  Portrait format  Screen diagonal  Model  Operating system  Capacitive multi-touch technology (PCT)  16.7 mil.  WUXGA 1920 x 1080  Pout 1080  Pixel  Wixed  Die-cast aluminum enclosure and glass front in aluminum frame  Windows Embedded Standard 7 Kit "P" (64bit)	mmon features of the model series		Powerful graphic processor 4GB DDR3-RAM Min. 32 GB SSD min. 4 GB of CFast removable memory
Number of colours  Resolution  Pixel WUXGA 1920 x 1080  Portrait format  Screen diagonal  Inch 21.5 widescreen  Model  Die-cast aluminum enclosure and glass front in aluminum frame  Operating system  Windows Embedded Standard 7 Kit "P" (64bit)	play - Type		Color display, TFT
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 Embedded Standard 7 Kit "P" (64bit)	uch-technology		Capacitive multi-touch technology (PCT)
Portrait format  Screen diagonal  Inch  Inch  21.5  widescreen  Model  Die-cast aluminum enclosure and glass front in aluminum frame  Operating system  Windows Embedded Standard 7 Kit "P" (64bit)	mber of colours		16.7 mil.
Screen diagonal  Inch 21.5 widescreen  Model  Die-cast aluminum enclosure and glass front in aluminum frame  Operating system  Windows Embedded Standard 7 Kit "P" (64bit)	solution	Pixel	
Model     Die-cast aluminum enclosure and glass front in aluminum frame       Operating system     Windows Embedded Standard 7 Kit "P" (64bit)	rtrait format		no
Operating system Windows Embedded Standard 7 Kit "P" (64bit)	reen diagonal	Inch	
	odel		Die-cast aluminum enclosure and glass front in aluminum frame
GALILEU Runtime License	erating system		Windows Embedded Standard 7 Kit "P" (64bit) GALILEO Runtime License
PLC-licence Not offered by Eaton	C-licence		Not offered by Eaton
License certificates for onboard interfaces  Not required	ense 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	lt-in interfaces		2 x USB host 3.0 1 x RS232 1 x RS485
Front type Tempered glass with anti-reflective coating	int type		Tempered glass with anti-reflective coating
Utilization Flush mounting	lization		Flush mounting
Slots For CFast memory cards: 1	uts		For CFast memory cards: 1
Memory card automation For CFast memory cards	emory card automation		For CFast memory cards
Pluggable communication cards (optional) no	ggable communication cards (optional)		no
Touch sensor Multi-touch touch panel	uch sensor		Multi-touch touch panel
Heat dissipation W 41	at dissipation	W	41

#### **Technical data**

Disnlay

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° )
Number of colours			16.7 mil.

Contrast ratio (Normally)		Normally 5000:1
Brightness	2	Normally 3000.1
	cd/m <sup>2</sup>	
Back-lighting		LED
Service life of back-lighting	h	Normally 50000
Operation		
Technology		Projected Capacitive Touch (PCT)
Touch sensor		Multi-touch touch panel
System		00 D 10 4 0501
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 PLC-licence		Not offered by Eaton
Operating system		Windows Embedded Standard 7 Kit "P" (64bit)
Interfaces, communication		GALILEO Runtime License
built-in interfaces		2 x Ethernet 1000/100/10 Mbps
Dunt in intellaces		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		1000/100/10 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: $\# \le \pm 10^{\circ}$ (if using natural convection) Mounting plate: min. 1.5 mm (0.06"), max. 4 mm (0.16")
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)
Approvale		por 11ENIA 200-2000/
Approvals		all (III FOO)
Approvals		CUL (UL508)
certificate		CE DAW OF
shipping classification		DNV GL
		LAK APPROVED AROULE
		ar Sici
		(( ===== ))
		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

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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)
EC/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.
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) / 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	

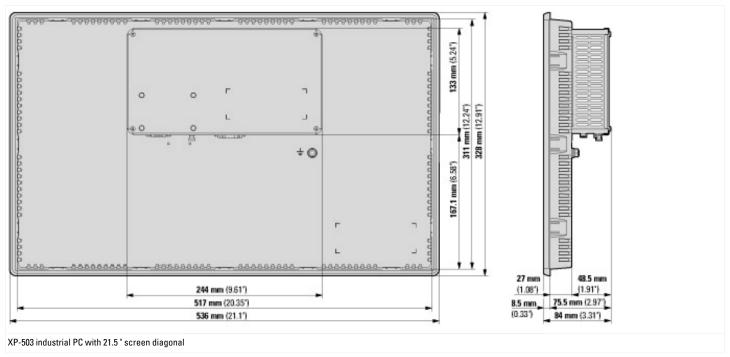
Number of IIIV interfesce DC 222		1
Number of HW-interfaces RS-232		1
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		1
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		2
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces 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 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
Screen diagonal	in	21.5
Number of pixels, horizontal		1920
Number of pixels, vertical		1080
Preinstalled operating system		Windows Embedded Standard 7
Max. main memory	M	4000
Integrated keyboard		No o
Number of function buttons		0
Number of buttons with LED  Number of system buttons		0
Number of system buttons  With touch screen		Yes
Mouse-cursor control integrated		Yes
Degree of protection (IP), front side		IP65
Degree of protection (NEMA)		12
Operating temperature	°(	0 - 50
With hard disc		No No
With CD-ROM drive		No
With DVD-drive		No

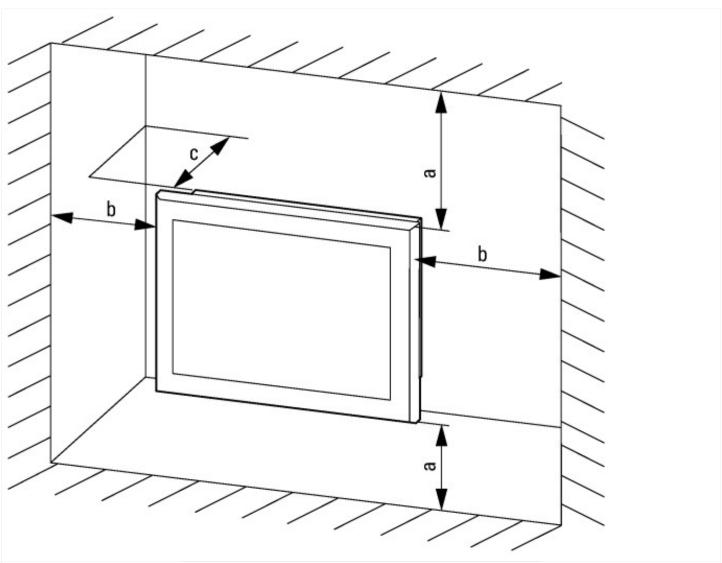
With CD-RW drive		No
With DVD RW drive		No
With floppy disc drive		No
With other storage media		No
Customer individual configuration		Yes
Number of free AGP-slots		0
Number of free PCI-slots		0
Number of free ISA-slots		0
Number of free PCMCIA-slots		0
Rail mounting possible		No
Wall mounting/direct mounting		No
Front built-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**

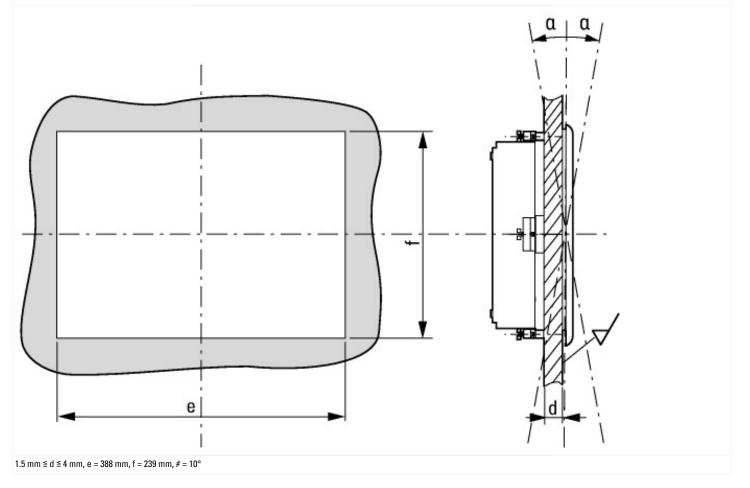
Product Standards	UL508, cULus; CE
UL File No.	E205091
CSA File No.	C22.2. No. 142-M1987
North America Certification	UL listed, certified by UL for use in Canada
Specially designed for North America	No
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC: IP65, UL/CSA Type: -

# **Dimensions**









### **Additional product information (links)**

Instruction leaflet XP-503 IL048006ZU	
Instruction leaflet XP-503 IL048006ZU	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL048006ZU.pdf
Manual XP-503 Panel PC MN048014	
Handbuch XP-503 Panel-PC MN048014 - Deutsch	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN048014_DE.pdf
Manual XP-503 Panel PC MN048014 - English	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN048014_EN.pdf
f1=1454&f2=1242&f3=1773;Download Software GALILEO	http://applications.eaton.eu/sdlc?LX=11&
Product overview (WEB)	http://www.eaton.eu/xp500