



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

**Part no. XP-503-21-A10-A00-1B**  
**Article no. 174476**  
**Catalog No. XP-503-21-A10-A00-1B**

## 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 Embedded Standard 7 Kit "P" (64bit) GALILEO 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
Pluggable communication cards (optional)			no
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 <sup>2</sup>	Normally 300
Back-lighting			LED
Service life of back-lighting		h	Normally 50000

## Operation

Technology			PCT
------------	--	--	-----

## 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)			Zero maintenance
Backup (time at zero voltage)			Normally 10 years
Operating system			Windows Embedded Standard 7 Kit "P" (64bit) GALILEO Runtime License

## Engineering

Visualisation software			Galileo or 3rd party
------------------------	--	--	----------------------

## 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
PLC-licence			Not offered by Eaton
Slots			For CFast memory cards: 1

## 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 certificate			cUL (UL508) CE
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

Temperature			
Operation	θ	°C	0 - +50
Storage / Transport	θ	°C	-20 - +60
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	+ 50
Relative humidity			
Relative humidity			10 - 90%, non condensing

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0

Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	41
Heat dissipation capacity	P <sub>diss</sub>	W	0
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.
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 6.0

PLC's (EG000024) / Panel PC (EC001414)			
Electric engineering, automation, process control engineering / Control / Operate and Observe (HMI) / Panel PC (ec1@ss8.1-27-24-23-01 [BAA721010])			
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 HW-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

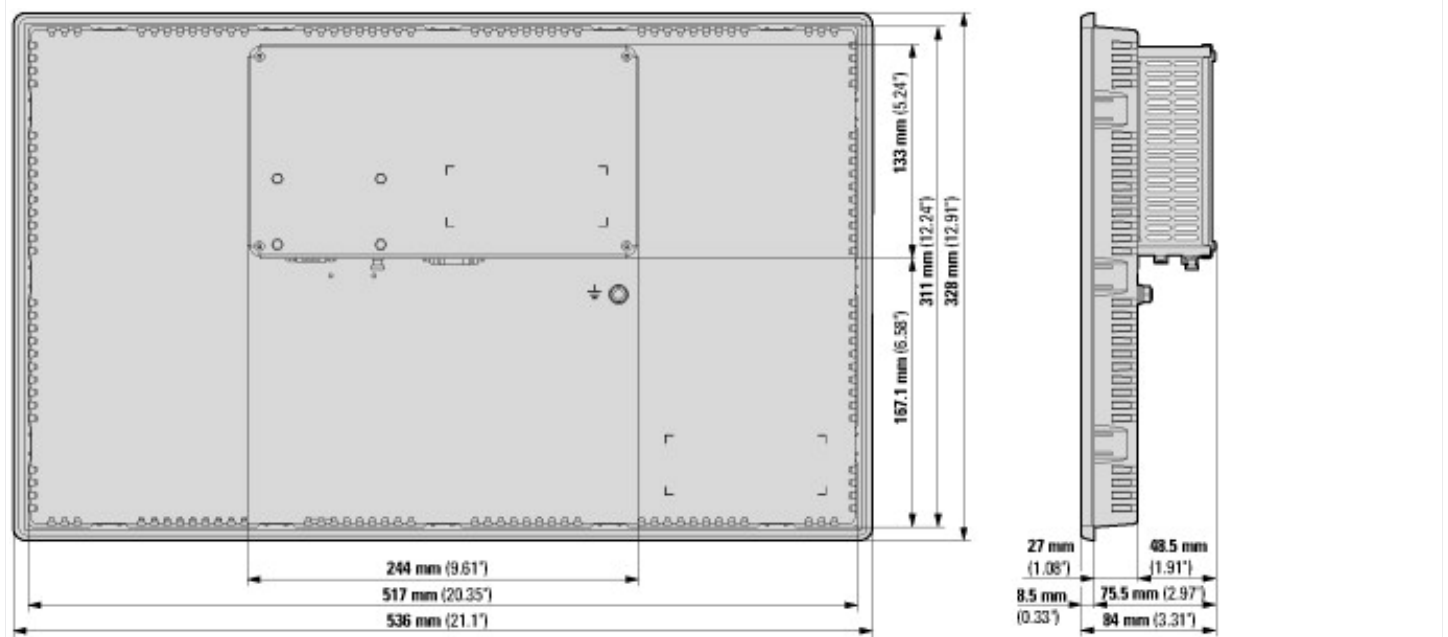
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		Yes
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol 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		-
Max. main memory	Mbyte	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
Operation temperature	°C	0 - 50
With hard disc		No
With CD-ROM drive		No
DVD-drive available		No
With CD-RW drive		No
DVD RW drive available		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, galleys 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

## Additional product information (links)

### Instruction leaflet XP-503 IL048006ZU

Instruction leaflet XP-503 IL048006ZU [ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL048006ZU2014\\_12.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL048006ZU2014_12.pdf)

### MN048014 XP-503 Panel PC manual

MN048014 Handbuch XP-503 Panel PC - Deutsch [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN048014\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048014_DE.pdf)

MN048014 XP-503 Panel PC manual - English [ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN048014\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048014_EN.pdf)