

POLARIS Smart HMI

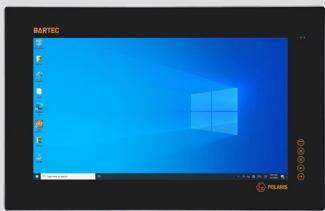
Panel PCs / Thin Clients for Zone 1 and 21



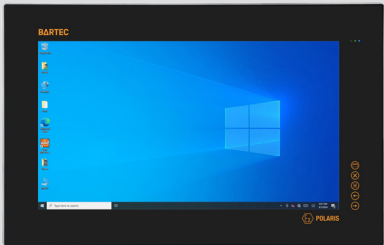
The POLARIS Smart HMI series is an innovative modular explosion-proof panel PC series. The Smart HMIs are equipped with an Intel® Atom processor (Elkhart Lake Series) as standard. The HMIs are based on the Windows 10 LTSC operating system and can be configured with our Bartec Zero Client shell (Thin Client) or as a PXE boot solution.

The POLARIS Smart HMI series is available as standard in 3 display sizes with the standard display resolution of 1920 x 1080 pixels (16:9 format) for Zone 1 & 21. The POLARIS Smart HMI series is equipped with a multi-touch display as standard and „optical bonding“ ensures optimum contrast even in poor lighting conditions. The POLARIS Smart HMI series is equipped with an Ethernet interface and various USB interfaces. Additional interfaces and functions modules are available to using expansion.

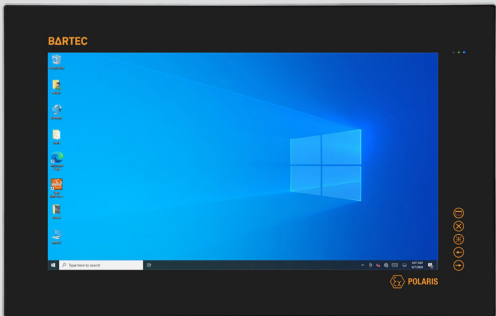
- capacitive touch display
- low reflection due to „optical bonding“
- display resolution of 1920 x 1080 pixels
- Windows Operating System for external visualisation software
- front panel mounting for easy installation and integration



POLARIS Smart HMI 17"



POLARIS Smart HMI 21.5"



POLARIS Smart HMI 24"

Explosion protection

Marking ATEX Zone1 and 21	Ⓔ II 2G Ex eb q [ib] IIC T4 Gb Ⓔ II 2D Ex tb IIIC T120 °C Db
Certification	IBExU 24 ATEX 1023 X
Marking IECEx	Ex eb q [ib] IIC T4 Gb Ex tb IIIC T120 °C Db
Certification	IECEx IBE 24.0004X

The marking is variable and depends on type and components used. Other approvals and certificates see bartec.com

Technical data

Construction	Front-panel fitting
Material	Front capacitive: tempered glass front on anodized aluminum plate back: stainless steel
Protection class	front / rear: ≥ IP64
Relative air humidity	5 to 95 % non-condensing

Electronic Unit

Processor	CPU Intel® Atom x6425RE Quad Core with 4 x 1.9 GHz, 16 GB RAM Alternative: CPU Intel® Atom x6413E Quad Core with 4 x 1.5 (Burst 3,0 GHz), 8 GB RAM
Hard-drive	SSD with 240 GB (MLC) Power protected
Operating system	Windows®
Interfaces	2 x Ex i-USB 2.0 2 x Ex e-USB 2.0 1 x Ethernet 100 BaseT

Optional accessories

Smart Device	Smart Device Bluetooth
Smart Device	Smart Device WLAN
Interface Module Exe	Smart Module USB to Ethernet 10/100BaseT and USB Smart Module USB to Bartec PROFIBUS DP Smart Module USB to Serial, (TTY, RS422/485, 2x RS232) Smart Module USB Hub (Out 3 x USB 2.0)
Barcode	Bluetooth or Cable Hand-held scanner
Keyboard	POLARIS Keyboard
Mouse	POLARIS Trackball

Variants

POLARIS Smart HMI	17.3" W	21.5" W	24" W
TFT colour display	17.3" Wide	21.5" Wide	24.0" Wide
Colours	16.7M (3 x 8 Bit)	16.7M (3 x 8 Bit)	16.7M (3 x 8 Bit)
Resolution	HD (1920x1080)	HD (1920x1080)	HD (1920x1080)
Visible area approx.	381.9 x 214.8 mm	476.6 x 268.1 mm	531.4 x 289.9 mm
Brightness	400 cd/m²	1000 cd/m²	300 cd/m²
Contrast	600:1	5000:1	5000:1
Touch	Capacitive	Capacitive	Capacitive
Optical Bonding	Yes	Yes	Yes
Backlighting	LED technology	LED technology	LED technology
Service life approx. (at +25 °C)	50.000 hours	50.000 hours	50.000 hours
Dimensions (W x H x D in mm)	540 x 351 x 110 mm	632 x 401 x 110 mm	681 x 443 x 110 mm
Wall cut-out (in mm)	489 x 301 mm + 1	581 x 351 mm + 1	630 x 392 mm + 1
Weight approx.	approx. 18,5 kg	approx. 24 kg	approx. 27 kg
Weight with AC Power Supply approx.	approx. 21,0 kg	approx. 26,5 kg	approx. 29,5 kg
Power supply Optional with AC Module	DC 24 V AC 100 to 253 V, 50 to 60 Hz	DC 24 V AC 100 to 253 V, 50 to 60 Hz	DC 24 V AC 100 to 253 V, 50 to 60 Hz
Input voltage range Optional with AC Module	DC 24 V ± 10 % AC 90 to 253 V	DC 24 V ± 10 % AC 90 to 253 V	DC 24 V ± 10 % AC 90 to 253 V
Max. power dissipation DC 24 V	Power dissipation Pmax. (with USB) < 40 W Pmax. (without USB) < 35 W tandard operation without USB: approx. 22 W	Power dissipation Pmax. (with USB) < 50 W Pmax. (without USB) < 45 W tandard operation without USB: approx. 35 W	Power dissipation Pmax. (with USB) < 44 W Pmax. (without USB) < 39 W tandard operation without USB: approx. 29 W
Power dissipation AC Module	P out 50 W = < 7 W P out 100 W = < 14 W	P out 50 W = < 7 W P out 100 W = < 14 W	P max 50 W = < 7 W P max 100 W = < 14 W
Permissible ambient temperature	Operating: 0 °C up to +60 °C Storage: -20 °C up to +60 °C	Operating: -20 °C up to +60 °C Storage: -20 °C up to +60 °C	Operating: -20 °C up to +60 °C Storage: -20 °C up to +60 °C

Order details

1 7 - 7 1 V 9 - * 1 1 * 5 * 0 0 / 0 0 0 0

A B C D

A	3 – POLARIS Smart HMI 17.3" W 4 – POLARIS Smart HMI 21.5" W 5 – POLARIS Smart HMI 24.0" W
B	4 – CPU Intel® Atom x6425RE Quad Core with 4 x 1.9 GHz, 16 GB RAM BIOS Modus: UEFI / PXE-boot 5 – CPU Intel® Atom x6413E Quad Core with 4 x 1.5 (Burst 3,0 GHz), 8 GB RAM BIOS Modus: UEFI / PXE- booth
C	Hard disk 5 – M.2 SATA SSD Power protected (actual 240 GByte)
D	Operating system 6 – Panel PC: Windows 10 IoT Enterprise LTSC 2021 64 Bit; Version 21H2 (OS Build 19044) 7 – Thin Client: Windows 10 IoT Enterprise LTSC 2021 64 Bit; with Bartec Zero Client Shell

Complete order number. Please insert correct code.

Order number

Additional AC Power supply	AC Power Supply DC 24V / 100W Wide range input Polaris Smart HMI	17-71VY-E012
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