

# POLARIS Smart HMI 12,1" W

Panel PCs / Thin Clients for Zone 1 and 21



**POLARIS Smart HMI 12.1" W is an innovative and explosion-protected Panel-PC. The panel PC comes standard with an Intel® Atom processor. It is based on a Windows operating system for external visualization software.**

The device is available in 16:10 format with a standard resolution of 1280 x 800 pixels and are designed for use in Zones 1 and 21. POLARIS Smart HMI 12.1" W comes standard with an Ethernet interface as with an Ethernet interface and various USB interfaces. Throughwell as multiple USB interfaces. With expansion modules and smart devices , expansion modules and smart devices, additional interfaces and the system can also be extended with additional interfaces and functions . functions can be added to the system later. Features include an Ethernet interface as well as various USB ports that can be used to connect different operating accessories such as keyboard, trackball and more. The devices can also be equipped with additional interfaces and functions via Smart Modules and Smart Devices.

- TPM 2.0 security standard, Windows 11 compliant
- capacitive touch
- low reflection due to „Optical Bonding“
- display resolution of 1280 x 800 pixels
- Windows Operating System for external visualization software
- front panel mounting for easy installation and integration

### Explosion protection

ATEX Marking	⊕ II 2G Ex eb q [ib] IIC T4 Gb ⊕ II 2D Ex tb IIIC T120 °C Db
ATEX Certification	IBExU 05 ATEX 1117 X
IECEX Marking	Ex eb q [ib] IIC T4 Gb Ex tb IIIC T120 °C Db
IECEX Certification	IECEX IBE 11.0007X

The markings are variable and depend on the types and components used.  
Other approvals and certificates see [bartec.com](http://bartec.com)

### Technical data

Installation type	front panel
Material	front: tempered glass front on anodized aluminum plate back: stainless steel
Protection class	front / rear: IP66 acc. to EN/IEC 60529 front: IP65 acc. to EN/IEC 60079-0 rear: IP65 acc. to EN/IEC 60079-0
Display	<ul style="list-style-type: none"> <li>- 12.1" WFTF colour display</li> <li>- 16.7 million colours</li> <li>- WXGA-resolution, 1280 x 800 pixels</li> <li>- Visible surface</li> <li>- approx. 264 mm x 166 mm</li> <li>- brightness 600 cd/m<sup>2</sup></li> <li>- contrast 1000:1</li> <li>- low reflection due to Bonding</li> </ul>
Background lighting	LED
Service life (at +25 °C)	approx. 50.000 hours
Touch	capacitive
Dimensions (W x H x D)	407 mm x 271 mm x 110 mm
Wall cut-out (W x H)	386 mm x 251 mm
Weight	approx. 12.5 kg
Power Supply	DC 24 V (DC 20 to 30 V)
Max. power dissipation DC 24 V	min. external supply DC 24 V/2 A P <sub>max</sub> (with USB) < 35 W P <sub>max</sub> (without USB) < 30 W standard operation without USB: approx. 25 W
Relative air humidity	5 % to 95 % non-condensing
Ambient temperature	operation: -20°C to +60°C storage: -20°C to +60°C

### Electronic unit

Processor	<b>standard:</b> CPU: Intel® Atom E3950 - Quad-Core 4 × 1.60 GHz (Burst up to 2.00 GHz) RAM: 8 GB  <b>alternative 1:</b> CPU: Intel® Atom x6425RE - Quad-Core, 4 × 1.90 GHz RAM: 16 GB  <b>alternative 2:</b> CPU: Intel® Atom x6413E - Quad-Core, 4 × 1.50 GHz (Burst up to 3.00 GHz) RAM: 8 GB  <b>hard drive SSD:</b> 240 GB (MLC), with Power Protection
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	<ul style="list-style-type: none"> <li>- Bluetooth</li> <li>- WLAN</li> </ul>
Smart module (Interfaces)	<ul style="list-style-type: none"> <li>- USB to Ethernet (10/100BaseT) and USB</li> <li>- USB to BARTEC PROFIBUS DP</li> <li>- USB to Serial (TTY, RS422/485, 2x RS232)</li> <li>- USB Hub (3 x USB 2.0 Out)</li> </ul>
Operating accessories	<ul style="list-style-type: none"> <li>- Bluetooth or wired hand scanner</li> <li>- POLARIS Keyboard</li> <li>- POLARIS Trackball</li> </ul>

**Order details**

Configure your product individually by selecting the appropriate variables

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<b>A</b>	<p><b>CPU - unit</b></p> <p>3 – CPU Intel® Atom E3950                  - Quad Core with 4 × 1.60 GHz (Burst up to 2.0 GHz)                  - 8 GB RAM                  - BIOS Mode: Legacy, incl. OS Recovery</p> <p>4 – CPU Intel® Atom x6425RE                  - Quad Core with 4 × 1.90 GHz                  - 16 GB RAM                  - BIOS Mode: UEFI</p> <p>5 – CPU Intel® Atom x6413E                  - Quad Core with 4 × 1.50 GHz (Burst up to 3.0 GHz)                  - 8 GB RAM                  - BIOS Mode: UEFI</p>
<b>B</b>	<p><b>Hard disk</b></p> <p>5 – M.2 SATA SSD Power protected (currently 240 GByte)</p>
<b>C</b>	<p><b>Operating system</b></p> <p>5 – Windows 10 IoT Enterprise LTSC 2021                  with Intel® Atom x6425RE &amp; Intel® Atom x6413E</p> <p>6 – Windows 10 IoT Enterprise LTSC 2021 64 bit</p> <p>7 – Windows 11 IoT Enterprise LTSC 2024 64 Bit;</p>

**Connection example**

