

Operating and Monitoring Systems

Panel PC / Thin Client SERIES 500

Device platform ORCA

ORCA PM E52A



- Modular Panel PC / Thin Client Panel-mount device, 12" display
- Zone 1, 21, Class I, Zone 1 / Div 2, IP66, GMP compliant
- Robust touch screen, protected behind reflection-free glass
- Data transmission via Ethernet copper up to 100 m

WebCode **ORCAPCTCPMA**



ORCA's E52A Panel-mount devices are modular explosion-proof Panel PCs or Thin Clients for Zones 1 and 21 as well as for Class I, Zone 1, Division 2. Their brilliant 12-inch widescreen displays with robust multi-touch capable touchscreen have a resolution of 1280 x 800 pixels (format 16:10). The devices have an all-round IP66 rating. You can configure memory variants as well as SSDs. Data transmission is via Ethernet as 10/100/1000Base-TX.

Technical Data

General

| | |
|---------------------|---|
| Series | ORCA Panel PCs / Thin Clients panel-mount devices |
| Product description | 12" Panel PC / Thin Client |
| Technology | Panel PCs / Thin Clients |
| HMI type | Panel-mount device |

Explosion Protection

| | |
|---------------------------------|---|
| Application range (zones) | 1 2 21 22 |
| Application range (divisions) | Class I, Zone 1 / Division 2 Class II, Division 1 and 2 Class III |
| IECEX certification | IECEX UL 23.0007X |
| ATEX certification | UL 23 ATEX 2902X |
| NEC certification | in approval |
| CEC certification | in approval |
| CCC certification | in approval |
| CNEX certification | in approval |
| KCS certification | in approval |
| KCC certification | in approval |
| PESO certification | in approval |
| BIS certification | in approval |
| IECEX gas explosion protection | Ex eb ib qb [ib] [ia Ga] IIC T4 Gb |
| IECEX dust explosion protection | Ex tb [ib] [ia Da] IIIC T115°C Db |
| ATEX gas explosion protection | Ⓢ II 2(1) G Ex eb ib qb [ib] [ia Ga] IIC T4 Gb |
| ATEX dust explosion protection | Ⓢ II 2(1) D Ex tb [ib] [ia Da] IIIC T115°C Db |

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Electrical Data

| | |
|------------------------------|---|
| Power supply | 24 VDC |
| Rated operational voltage DC | 24 V |
| Rated voltage range DC | 19.2 V - 31.2 V |
| Processor type | Intel® ATOM™ E3940 |
| Processor details | 1.6 / 1.8 GHz, Quad Core |
| RAM | 4 GB |
| Data memory | 64 GB / 128 GB |
| Graphics controller | Intel® HD graphics 500 |
| Operating system | None None / PXE Boot Windows™ 10 2019 LTSC IGEL OS |
| Operating system note | IGEL OS: pre-installed without licence |
| Image | None Windows™ 10 2019 LTSC 32-Bit Windows™ 10 2019 LTSC 64-Bit Windows™ 10 2019 LTSC 64-Bit Remote HMI Firmware V6 Windows™ 10 2019 LTSC 64-Bit Movicon 11 IGEL OS |
| Ethernet / Data | 10/100/1000Base-TX |
| Data cable | min. CAT5 |
| Data cable length | 100 m |
| Data cable notice | Ex e screw terminals |
| Interface medium | min. CAT5 Data transmission |
| Interface USB | 2x USB Ex ia (for keyboard, pointing instrument) 1x USB Ex ib (for USBi-Drive) 1x USB Ex e (LS/FS/HS 500 mA) |
| Interface serial | RS-232 / RS-422 / RS-485 switchable |
| Battery | > 5 years |
| Capacitor buffered | approx. 4 days |

Display

| | |
|------------------------------------|---|
| Display version | TFT colour display |
| Display version 2 | 16.7 million colours |
| Display size inch | 12 |
| Display size centimetres | 30.8 |
| Display resolution | 1280 x 800; 800 x 600; 800 x 480; 640 x 480 |
| Total pixels | 1280 x 800 |
| Display dimensions | 16:10 |
| Display brightness | 400 cd/m ² |
| Display contrast | 1:1000 |
| Touchscreen | Yes |
| Touchscreen technology | Projected capacitive (PCAP), multi-touch |
| Touchscreen activation | Touch, no activation pressure required |
| Touchscreen input method | Finger, thin gloved finger or special gloves, conductive stylus |
| Touchscreen durability | Very good |
| Touchscreen transmissivity / optic | Very good |
| Touchscreen surface contaminants | Unaffected (may however be affected by conductive fluids such as saltwater) |

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Display

| | |
|---------------------------------|---|
| Touchscreen abrasive resistance | No abrasion by finger or rubber |
| Backlight | LED Technology |
| Backlight service life | 50000 h +25 °C |
| Front plate (display) | Glass, polyester on powder-coated aluminium |
| Function keys | Optionally via keyboard with integrated trackball, joystick or touchpad |
| Softkeys | Optionally via keyboard with integrated trackball, joystick or touchpad |
| Cursor keys | Optionally via keyboard with integrated trackball, joystick or touchpad |
| Alphanumeric keys | Optionally via keyboard with integrated trackball, joystick or touchpad |
| System keys | Optionally via keyboard with integrated trackball, joystick or touchpad |

Ambient Conditions

| | |
|-------------------------------|---|
| Ambient temperature operation | -20 °C ... +55 °C |
| Storage temperature | -40 °C ... +60 °C |
| Relative humidity | 10 to 90 % at +40 °C, non-condensing |
| Vibration sinus | 5 to 13.2 Hz: ±1 mm 13.2 to 100 Hz: ±0.7 g Axis X, Y, Z |
| Shock | 15 g / 11 ms |
| Positive pressure operation | <= 20 mbar |

Mechanical Data

| | |
|----------------------|--|
| Dimensions (WxHxD) | 330 mm x 241 mm x 101 mm |
| Mounting possibility | Front installation |
| Cut-out (WxH) | 310 mm x 221 mm |
| Wall thickness | ≤ 8 mm |
| Depth of cut-out | 92 mm |
| Mounting position | any |
| Weight | 10 kg |
| Material front | Glass, polyester on powder-coated aluminium |
| Material back | Aluminium |
| Ingress protection | IP66 |
| IP enclosure front | IP66 |
| IP enclosure back | IP66 |
| Fixing frame | yes |
| Breather | yes, part of the enclosure and device approval |

Mounting / Installation

| | |
|-----------------|--------------------|
| Mounting option | Front installation |
|-----------------|--------------------|

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.