

Operating and Monitoring Systems

Panel PC / Thin Client SERIES 500

Device platform ORCA

ORCA PM M52A



- Modular Panel PC / Thin Client Panel-mount device, 12" display
- Zone 2, 22, Class I, Zone 2 / 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 M52A Panel-mount devices are modular explosion-proof Panel PCs or Thin Clients for Zones 2 and 22 as well as for Class I, Zone 2, 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)	2 22
Application range (divisions)	Class I, Zone 2 / 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 ec ib qb [ib Gb] [ia Ga] IIC T4 Gc
IECEX dust explosion protection	Ex tc [ib Db] [ia Da] IIIC T115°C Dc
ATEX gas explosion protection	Ⓜ II 3(1) G Ex ec ib qb [ib Gb] [ia Ga] IIC T4 Gc
ATEX dust explosion protection	Ⓜ II 3(1) D Ex tc [ib Db] [ia Da] IIIC T115°C Dc

Electrical Data

Power supply	24 VDC
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Electrical Data

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)
Touchscreen abrasive resistance	No abrasion by finger or rubber

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Display

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	6.7 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
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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.