

Operating and monitoring systems

Panel PC SERIES 400

Device platform MANTA GMP

OS IT-479-2TX



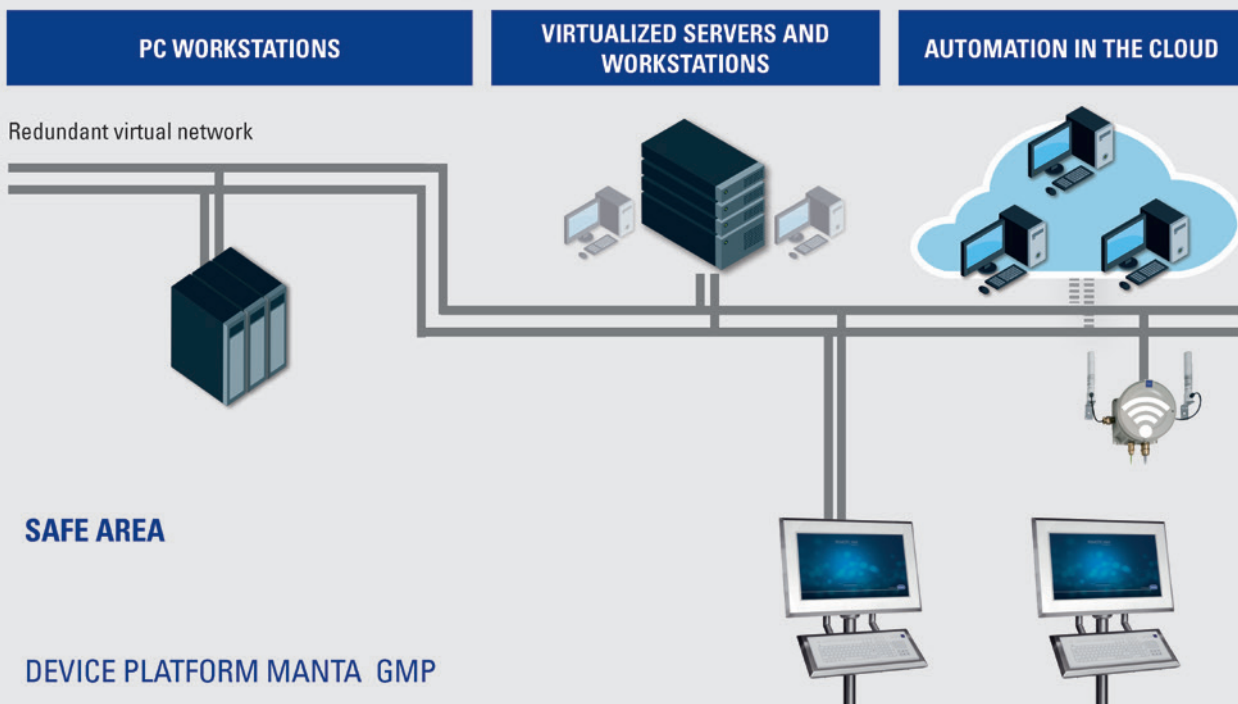
- Modular Panel PC Operator Station in GMP cleanroom enclosure
- Display size 24" (1920 x 1080 pixel)
- Capacitiv glass touchscreen, multitouch
- For installation in safe areas and cleanrooms according to EHEDG- and EU-GMP directives for purity level C
- Mounting on stand / mobile stand
- Dual-Monitor solutions
- Optional keyboard with pointing device also optional accessories as barcode scanner e.g.

WebCode **IT479GMPA**

The Operator Stations device platform MANTA-GMP IT-479 SERIES are developed for operations in cleanrooms according to EU-GMP directives for cleanroom grade C and EHEDG. The data transmission is done via Dual-Ethernet 10/100/1000Base-TX with CAT7 up to a distance of 100 m.

The Operator Stations can be mounted on a fixed or mobile stand. Optional available is a capacitiv projected touchscreen, are keyboards with touchpad or trackball as well as additional accessories like barcode reader e.g.

PANEL PC INTEGRATION



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Technical Data

General

Series	Operator Station OS IT-479 (discontinued)
Product description	24" Panel PC
Technology	Panel PC
HMI type	Operator Station

Explosion Protection

Application range (zones)	Non-Ex
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Electrical Data

Rated operational voltage AC	230 V
Rated voltage AC	100 – 240 V
Input voltage range AC	85 – 250 V
Power consumption AC 1	1 A
Protection fuse AC	4 AT
Fuses	2x 4A time-lag, 250 V
Rated operational power	typ. 50 W (typ. 170 BTU)
Processor type	AMD GX-222GC
Processor details	2.2 GHz; dual core, 10W TDP
RAM	4 GB
Data memory	64 GB MLC 128 GB MLC
Graphics controller	integrated AMD Radeon HD 8280E chip
Memory technology	Flash memory (Solid State Drive - SSD)
Operating system	Windows Embedded Standard 7 (64-Bit) Windows 7 Ultimate (64-Bit) Windows 10 IoT Enterprise 2016 LTSB (64 bit) (included in standard delivery) Windows 10 IoT Enterprise 2016 LTSB (32 bit) (optional on USB stick)
Language support	via Windows operating system
Ethernet / Data	2x 10/100/1000Base-TX
Data cable	CAT7 installation cable AWG23
Data cable length	max. 100 m
Interface medium	CAT7 data transmission
Frequency range	50 – 60 Hz
Interface USB	4 x USB
Interface serial	2 x RS-232
Interface audio	1 x Audio Line in / out
Connection impedance	12 W at 4 Ohm
Connections	via standard plug
Further connections	12 VDC Output external on / off switch (pre-mounted at enclosure) Loudspeaker output (optional)
Further connections note	Only accessories approved by STAHL HMI may be connected to the 12 VDC output.
Plug version AC	IEC plug (female)
Plug version USB	USB-A connector
Plug version further connections	pluggable screw terminal, green, 6-pin 2.5 mm ²
Minimum requirement connection cable supply	3 x 1.5 mm ²

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Electrical Data

Minimum requirement connection cable Ethernet	CAT6
Real-time clock	Yes
Real-time clock data buffer	Lithium battery and capacitor buffered, maintenance-free
Battery	BR2032
Battery buffered	> 5 years
Capacitor buffered	at least 4 days

Display

Display version	TFT colour display
Display version 2	16.7 million colours
Display size inch	24
Display size centimetres	61
Display resolution	Full HD
Total pixels	1920 x 1080
Display dimensions	16:9
Display brightness	250 cd/m ²
Display contrast	1000:1
Display viewing angle horizontal	178° at CR ≥10
Display viewing angle vertical	178° at CR ≥10
Display	Glass
Touchscreen	Yes, optional
Touchscreen technology	projected capacitive (PCAP), multi-touch
Touchscreen activation	no activation pressure necessary
Touchscreen input method	Finger, thin gloved finger or special gloves, conductive stylus
Touchscreen durability	very good
Touch screen scratch hardness MoHS	6
Touchscreen scratch hardness pencil test ISO15184	9H
Touchscreen transmissivity / optic	very good
Touchscreen surface contaminants	Unaffected (but can be affected by conductive fluids (e.g. saltwater))
Touchscreen abrasive resistance	no visible abrasion by rubber or finger
Backlight	LED Technology
Backlight service life	50 000 h at +20 °C

Ambient Conditions

Ambient temperature operation	0 °C ... +45 °C
Storage temperature	-20 °C ... +60 °C
Cold start temperature	0 °C
Temperature note 3	Cold-start temperature: If the HMI device is switched on at temperatures below 0 °C, the display will need a certain warm-up time before everything is legible. Depending on how low the temperature is, this process may last up to 3 hours.
Temperature note general	The temperature details apply to a standard device combination with display, keyboard and enclosure. Any additional built-in or added components may have an impact on / change these.
Heat dissipation	approx. 40 % via upper enclosure front, approx. 60 % via enclosure back side
Relative humidity	10 up to 90 % at +40 °C, non-condensing

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Mechanical Data

Enclosure / Design (1)	GMP enclosure 15° tilted
Dimensions (WxHxD) (1)	673 mm x 672 mm x 370 mm
Enclosure / Design (2)	GMP enclosure vertical
Dimensions (WxHxD) (2)	673 mm x 680 mm x 373 mm
Weight	21 kg
Material front	Stainless steel / glass
Material back	Stainless steel
Ingress protection	IP66
Mechanical data note	The mechanical data apply to an system with display and keyboard. Additional built-in or added components may have an impact on / change these.

Mounting / Installation

Enclosure type	Stainless steel enclosure (GMP) / (EU-GMP grade C) / vertical or tilted 15°
Mounting option	Stand, mobile stand

Components

Keyboard	optional, 107 keys with trackball or touchpad
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