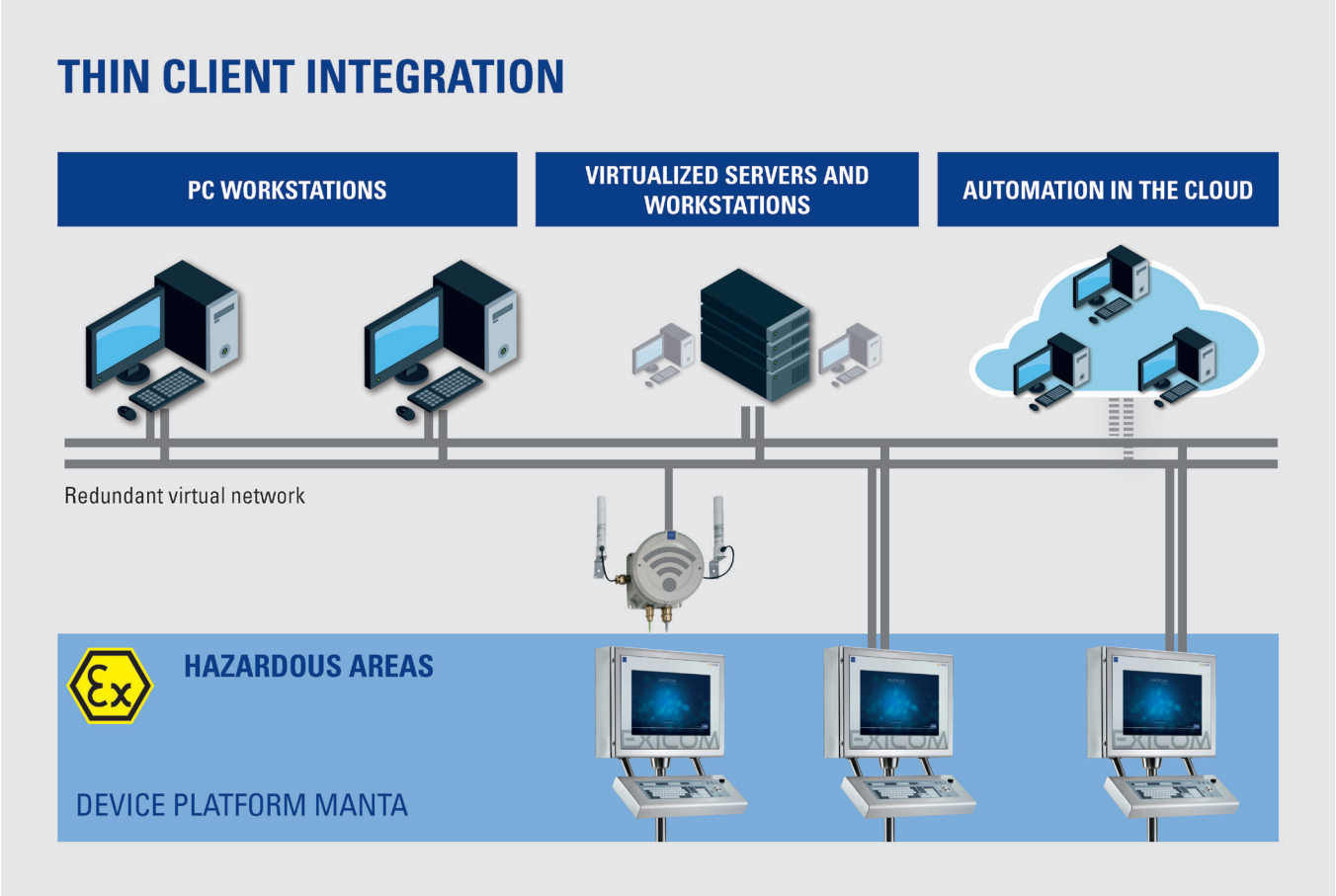
Operating and monitoring systems
Thin Client SERIES 500
Device platform MANTA
OS MT-567-SX

- Thin Client Operator Station, 22" display, 1680 x 1050
- Zone 2, 22, stainless steel enclosure IP66, optional acc. to GMP
- Display of the 19" (1280 x 1024) resolution true to 5:4 format
- Optional resistive glass or foil touch screen
- Data transmission as 1000Base-SX via multi-mode fibre optic up to 550 m and as 10/100Base-TX via CAT7 up to 100 m

MY R. STAHL **MT567A**

The OS MT-567 HMI series consists of Thin Client Operator Stations for hazardous zones 2 and 22. Their brilliant 22" widescreen displays with a resolution of 1680 x 1050 pixels (format 16:10), are available with or without touch screen. The stainless steel enclosures (SS304 or SS316L) are available with a front opening or in cleanroom-compliant design and with different mounting options. Country-specific keyboards, pointer instruments and RFID and barcode scanners are useful accessories making work easier and extending functionality. Data is transmitted as 1000Base-SX via multi-mode fibre optic up to 550 m, as 10/100Base-TX via CAT7 up to 100 m or simultaneously via both interfaces.



Technical Data

General	
Series	Operator Station OS MT-567 (discontinued)
Product description	22" Thin Client
HMI type	Operator Station
Technology	Remote HMI Thin Client
WebCode	MT567A
Explosion Protection	
Application range (zones)	2 22
Certifications	ATEX, IECEx, EAC, CNEX
IECEx certification	IECEx BVS 14.0034X
ATEX certification	BVS 12 ATEX E 033 X
CNEx certification	CNEx14.2205X
Notice certification	The certificates and explosion protection markings 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.
IECEx gas explosion protection	Ex nA nR [ia op is Ga] IIC T4 Gc
IECEx dust explosion protection	Ex tc IIIC [ia op is Da] IP66 T110°C Dc
ATEX gas explosion protection	II 3(1) G Ex nA nR [ia op is Ga] IIC T4 Gc
ATEX dust explosion protection	II 3(1) D Ex tc IIIC [ia op is Da] IP66 T110°C Dc
CNEx gas explosion protection	Ex nA nR [ia op is Ga] IIC T4 Gc
CNEx dust explosion protection	Ex tc IIIC [ia op is Da] IP66 T110°C Dc
Electrical Data	
Rated operational voltage DC	24 V
Voltage range DC	20 – 30 V
Rated operational voltage AC	230 V
Voltage range AC	100 – 240 V
Power consumption DC	3 A
Power consumption AC 1	1 A
Protection fuse DC	5 AT
Protection fuse AC	5 AT
Rated operational power	typ. 50 W / 100 W at O30 / max. 150 W (typ. 170 BTU / 341 BTU at O30 / max. 510 BTU)
Processor type	ATOM E3845
Processor details	Intel Bay Trail (BT); 1.91 GHz; quad core
RAM	4 GB
Data memory	64 GB SLC 128 GB MLC
Graphics controller	integrated Intel Gen. 7 HD Graphics
Memory technology	SSD solid state flash drive M.2
Operating system	Windows 10 IoT Enterprise
Language support	via operating system
Image	Remote Firmware
Ethernet / Data	1x 1000Base-SX (Ex op is) 1x 10/100Base-TX (Ex nA)
Data cable	SX: 50/125 µm FO cable TX: CAT7 installation cable AWG23

Electrical Data	
Data cable length	SX: max. 550 m, for 50 µm FO cable TX: max. 100 m
Interface medium	SX: Multi-mode optical fibre cable TX: CAT7 data transmission
Frequency range	50 – 60 Hz
Interface USB	2 x USB (Ex ia) 1 x USB (Ex nA) 2 x USB (Ex ia) (keyboard, pointing device)
Interface serial	1 x RS-232 (Ex nA)
Interface audio	1 x Audio line out (Ex nA)
WLAN	optional via USB
Connection compartment	Power supply direct in integrated connection box
Connections	via spring clamp terminals, green
Voltage output	12 V DC, max. 500 mA
Wiring	flexible cable up to 2.5 mm² (AWG14) fixed cable up to 4 mm² (AWG12)
Plug version FO	LC duplex connector
Max. input voltage U_m	250 VAC
Audio sound	optional: Audio amplifier (mono amplifier) 3.5 W, for 2x loudspeaker connection (Ex nA)
Real-time clock	Yes
Real-time clock data buffer	Lithium battery and capacitor buffered, maintenance-free
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	22
Display size centimetres	56
Display resolution	WSXGA+
Total pixels	1680 x 1050
Display dimensions	16:10
Display brightness	250 cd/m²
Display contrast	1000:1
Display viewing angle horizontal	178° at CR ≥5
Display viewing angle vertical	170° at CR ≥5
Display	Glass
Touchscreen	optional, resistive
Touchscreen technology	5-wire glass or membrane touch
Touchscreen activation	Foil touch: low activation pressure (0.1 up to max. 1 N) Glass touch: medium activation pressure (1.8 up to max. 2.5 N)
Touchscreen input method	Finger, gloved finger or stylus
Touchscreen durability	Foil touch: Polyester foil is easily scratched, with high pressure force the spacer dots could be damaged. Glass touch: Quite good, but with high pressure force the spacer dots could be damaged.
Touch screen scratch hardness MoHS	Foil touch: - Glass touch: >5

Display	
Touchscreen scratch hardness pencil test ISO15184	Foil touch: 3H Glass touch: 9H
Touchscreen transmissivity / optic	Foil touch: small milky effect due to the foil Glass touch: very good
Touchscreen surface contaminants	unaffected
Touchscreen abrasive resistance	36 million times with a silicone rubber of R8 finger, hitting rate 250 g at 2 times per second
Backlight	LED Technology
Backlight service life	50 000 h at +20 °C
Front plate (display)	Aluminium
Ambient Conditions	
Ambient temperature operation	-20 °C … +55 °C
Ambient temperature operation 1	-30 °C … +55 °C with heater version O30
Storage temperature	-30 °C … +70 °C
Cold start temperature	-10 °C
Temperature note 1	The O30 version is only available for the AC version devices !
Temperature note 2	Operating temperature +55 °C for a maximum of 5 h, for constant operation (24/7) +50 °C.
Temperature note 3	Cold start temperature: If the HMI device is switched on at a temperature below -10 °C the display will need a certain amount of time to warm up until everything is clearly visible. 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	about 40 % via the front plate and 60 % via the enclosure
Relative humidity	10 to 90 % at +40 °C, non-condensing
Damp heat cyclic	+55 °C (±2 °C) ≥95 % (only device with glass touch (TG))
Dry heat	+65 °C
Vibration sinus	5 to 13.2 Hz: ±1 mm 13.2 to 100 Hz: ±0.7 g Change cycle 1 oct/min Axis X, Y, Z
Vibration sinus 1	71.7 to 79.2 Hz: ±0.7 g 120 min. Change cycle 1 oct/min Axis X
Vibration sinus 2	30 Hz: ±0.7 g 90 min. Change cycle 1 oct/min Axis Y, Z
Mechanical Data	
Dimensions (WxHxD)	740 mm x 872 mm x 400 mm
Material front	Aluminium / stainless steel
Material back	Stainless steel
Ingress protection	IP66
Weight	48.5 kg
Breather	optional
Keyboard note	With a keyboard with trackball, the operator station’s ingress protection is reduced to IP54, when the trackball is moved.

Mechanical Data	
Mechanical data note	The mechanical data apply to an FR enclosure with display and keyboard. Other enclosure types as well as any additional built-in or added components may have an impact on / change these.
Mounting / Installation	
Enclosure type	Stainless steel enclosure (FR) optional clean room (CFR)
Mounting option	Wall, elbow, stand
Components	
Keyboard	optional, 107 keys with trackball / joystick / mouse / touchpad (Ex ia)