

Operating and Monitoring Systems

KVM system SERIES 600

Device platform MANTA

OS MT-677-DVI3-MM

STAHL



- KVM Operator Station, 24" display, full HD 1920 x 1080
- Zone 2, 22 unit
- Optional resistive glass or foil touch screen
- Data transmission via multi-mode fibre optic up to 550 m

MY R. STAHL MANTAKVMO-SA



The OS MT-677-DVI3-MM operator stations with MANTA device platform are explosion-protected KVM systems for Zones 2, 22. Their brilliant 24" WU widescreen displays with a resolution of 1920 x 1080 pixels (format 16:9) are available with or without touch screen. The stainless steel enclosures (SS304 or SS316L) are available with a front opening in cleanroom-compliant design and with different mounting options. Configuration options include country-specific keyboards, pointer instruments, RFID readers and barcode readers. Data is transmitted via multi-mode fibre optic up to 550 m.

Technical Data

General

| | |
|---------------------|-----------------------------|
| Series | MANTA KVM Operator Stations |
| Product description | 24" KVM system |
| HMI type | Operator Station |
| Technology | Remote HMI KVM |

Explosion Protection

| | |
|---------------------------------|---|
| Application range (zones) | 2 22 |
| Scope | EU (CE / ATEX) International (IECEX) China (CCC / CNEX) Australia (RCM) |
| IECEX certification | IECEX BVS 14.0034X |
| ATEX certification | BVS 12 ATEX E 033 X |
| CCC certification | 2020312309000270 |
| CNEX certification | CNEX14.2205X |
| DNV certification | TAA00000BK only devices with glass touchscreen, AC and O30 |
| Notice certification | The certificates and explosion protection markings apply to a standard device combination with display, keyboard and enclosure. These may vary with further installations and extensions. |
| IECEX gas explosion protection | Ex nA nR [ja op is Ga] IIC T4 Gc |
| IECEX dust explosion protection | Ex tc IIIC [ja op is Da] IP66 T110°C Dc |
| ATEX gas explosion protection | II 3(1) G Ex nA nR [ja op is Ga] IIC T4 Gc |
| ATEX dust explosion protection | II 3(1) D Ex tc IIIC [ja op is Da] IP66 T110°C Dc |
| CNEX gas explosion protection | Ex nA nR [ja op is Ga] IIC T4 Gc |
| CNEX dust explosion protection | Ex tc IIIC [ja op is Da] IP66 T110°C Dc |

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Electrical Data

| | |
|-----------------------------------|--|
| Power supply | 24 VDC or 230 VAC |
| Rated operational voltage DC | 24 V |
| Voltage range DC | 20 – 30 V |
| Rated operational voltage AC | 230 V |
| Voltage range AC | 100 – 240 V |
| Frequency range | 50 – 60 Hz |
| 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) |
| Transfer technology | KVM-DVI3 |
| Operating system | independent |
| Language support | User menu: English |
| Ethernet / Data | FO multi-mode |
| Data cable | 50/125 µm FO cable or 62.5/125 µm FO cable |
| Data cable length | max. 550 m, with 50 µm FO cable max. 300 m, with 62.5 µm FO cable |
| Interface medium | multi-mode optical fibre cable |
| 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 reader note | RFID reader, support of the following standards: MIFARE Classic, DESFire, DESFire EV1, LEGIC prime and advant, NFC, INSIDE Secure, Sony FeliCa, ISO 14443A & 15693 1D/2D Barcode scanner: support of all common 1D/2D codes, wired or Bluetooth |
| Interface audio | 1 x Audio Line in / out (Ex nA) |
| WLAN | optional via USB |
| Connection compartment | Power supply direct in integrated terminal box |
| Connections | via spring clamp terminals, green |
| Voltage output | 12 VDC, max. 500 mA |
| Wiring | flexible cable up to 2.5 mm ² (AWG14) fixed cable up to 4 mm ² (AWG12) |
| Plug version FO | LC duplex socket |
| Max. input voltage U _m | 250 VAC |

Display

| | |
|--------------------------|---------------------------------------|
| Display version | TFT Color display |
| Display version 2 | 16.7 million colours |
| Display size inch | 24 |
| Display size centimetres | 61 |
| Display resolution | 1920 x 1080, 1680 x 1080, 1280 x 1024 |
| Total pixels | 1920 x 1080 |
| Display dimensions | 16:9 |
| Display brightness | 300 cd/m ² |

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Display

| | |
|---|--|
| Display contrast | 1000:1 |
| Display viewing angle horizontal | 178° |
| Display viewing angle vertical | 170° |
| Touchscreen | optional, resistive glass or foil touchscreen |
| Touchscreen technology | 5-wire glass or foil touch |
| Touchscreen activation | Foil touch: low activation pressure (0.1 to max. 1 N) Glass touch: medium activation pressure (1.8 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 the spacer dots could be damaged Glass touch: Satisfactory, but glass is not hardened, with high pressure the spacer dots could be damaged |
| Touch screen scratch hardness MoHS | Foil touch: - Glass touch: >5 |
| Touchscreen scratch hardness pencil test ISO15184 | Foil touch: 3H Glass touch: 9H |
| Touchscreen transmissivity / optic | Foil touch: slightly milky effect due to foil Glass touch: very good |
| Touchscreen surface contaminants | unaffected |
| Touchscreen abrasive resistance | 36 million activations with a silicone rubber finger R8, 250 g for 2 activations per second |
| Backlight | LED Technology |
| Backlight service life | 50000 h at +20 °C |
| Front plate (display) | Aluminium and no touchscreen: glass foil touchscreen: polyester glass touchscreen: thin glass |
| Function keys | optional via keyboard with integrated trackball, joystick or touchpad |
| Softkeys | optional via keyboard with integrated trackball, joystick or touchpad |
| Cursor keys | optional via keyboard with integrated trackball, joystick or touchpad |
| Alphanumeric keys | optional via keyboard with integrated trackball, joystick or touchpad |
| System keys | optional via keyboard with integrated trackball, joystick or touchpad |
| 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. |
| Relative humidity | 10 to 90 % at +40 °C, non-condensing |
| Damp heat cyclic | +55 °C (±2 °C) ≥95 % (only device with glass touch (TG)) |

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Ambient Conditions

| | |
|-------------------|---|
| 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 |
| Weight | 58.5 kg |
| Material front | Aluminium / stainless steel |
| Material back | Stainless steel |
| Ingress protection | IP66 |
| Breather | optional |
| Keyboard note | Only for KBDi: For keyboards with a trackball, the IP protection of the operator station is reduced to IP54 when the trackball is being moved. |
| Mechanical data note | The mechanical data apply to an FR enclosure with display and keyboard. They may change accordingly with other enclosure types as well as any additional built-in or added components. |
| Weight | - |

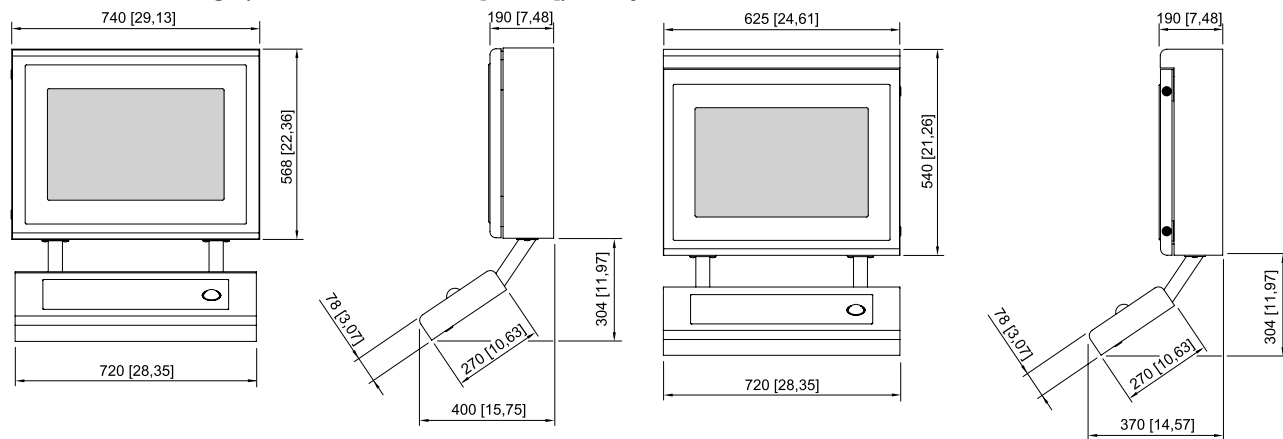
Mounting / Installation

| | |
|-----------------|---|
| Enclosure type | Stainless steel enclosure (FR) optional clean room (CFR) |
| Mounting option | Wall, elbow, stand |

Components

| | |
|----------|---|
| Keyboard | optional, 105 keys with trackball / joystick / touchpad (Ex ia) |
|----------|---|

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



Operator Station FR enclosure

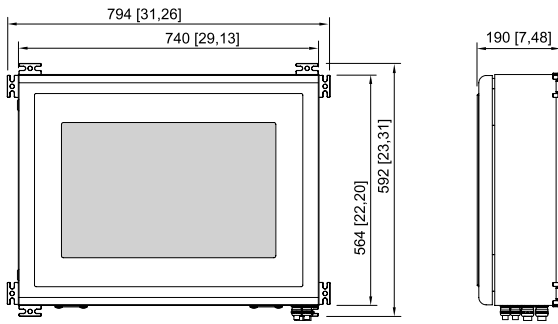
Operator Station CFR enclosure

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Operator Station FR enclosure, wall mounting

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