

# Operating and monitoring systems

KVM system SERIES 600

Device platform MANTA

OS ET-677-DVI3-MM



- KVM Operator Station, 24" display, full HD 1920 x 1080
- Zone 1, 2, 21, 22 and Division 2
- Optional resistive glass or foil touch screen
- Data transmission via multi-mode fibre optic up to 550 m

WebCode **ET677A**

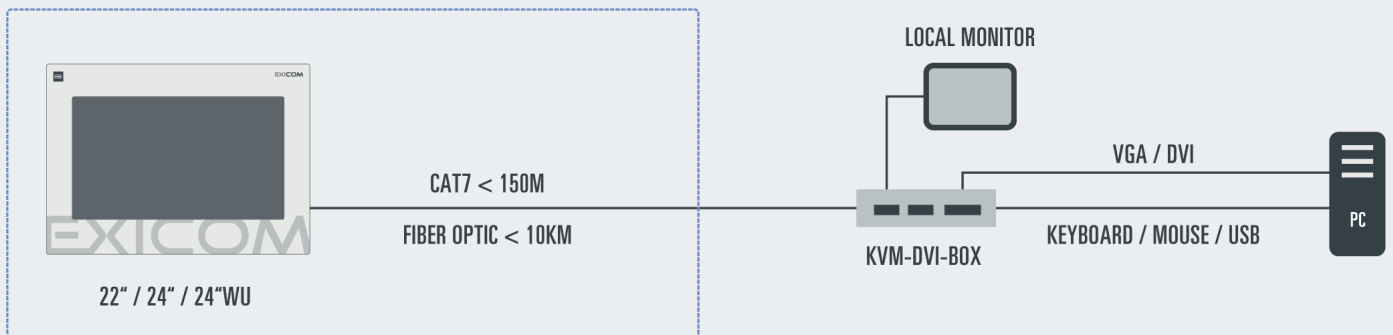


The OS ET-677-DVI3 HMI series includes KVM operator stations for zones 1, 2, 21, 22 and Division 2. Their brilliant 24" widescreen displays with a resolution of 1920 x 1080 pixels (format 16:9), and are available with or without touch screen. The stainless steel enclosures (SS304 or SS316L) are available 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 via multi-mode fibre optic up to 550 m.

## KVM-SYSTEMS MANTA (SERIES 6X7)

Zone 1 / 2 / 21 / 22 – Class I, Zone 1 / Class I, Div 2 / Safe areas

SAFE AREA



## Technical Data

### General

Series	Product Series OS ET-677
Product description	24" KVM system
Technology	Remote HMI KVM
HMI type	Operator station
WebCode	ET677A

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#### Explosion Protection

Application range (zones)	1 2 21 22
Application range (divisions)	Class I, Division 2
Certifications	ATEX, IECEx, NEC, CEC, EAC, KGS
Certification IECEx	IECEx TUR 11.0075X
Certification ATEX	BVS 11 ATEX E 102 X
Certification EAC	TC RU C-DE.ГБ04.B00478
Certification NEC	70011698
Certification CEC	70011698
Certification KGS	12-GA4BO-0617X
Certification KCC	Depending on built-in components
Certification note	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.
Gas explosion protection IECEx	Ex e q [ia op is Ga] IIC T4 Gb
Dust explosion protection IECEx	Ex tb IIIC [ia op is Da] IP65 T110°C Db
Gas explosion protection ATEX	II 2(1) G Ex e q [ia op is Ga] IIC T4 Gb
Dust explosion protection ATEX	II 2(1) D Ex tb IIIC [ia op is Da] IP65 T110°C Db
Gas explosion protection EAC	1Ex e q [ia op is Ga] IIC T4 Gb X
Dust explosion protection EAC	Ex tb IIIC [ia op is Da] IP65 T110°C Db
Explosion protection NEC	Class I, Zone 1 AEx e q [ia] IIC T4 Gb
Explosion protection CEC	Ex e q [ia] IIC T4 Gb Class I, Division 2
Explosion protection KGS	Ex e q IIC T4 Ex tb IIIC IP64 T110°C Ex ia IIC T4 Ex ia IIIB T110°C

#### Electrical Data

Power consumption AC 1	1 A
Power consumption DC	3 A
Transfer technology	KVM-DVI3
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 e) 2 x USB (Ex ia) (keyboard, pointing device)
Interface serial	1 x RS-232 (Ex e)
Interface audio	1 x Audio Line in / out (Ex e)
WLAN	optional via USB
Rated operational voltage AC	230 V
Voltage range AC	100 – 240 V

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#### Electrical Data

Rated operational voltage DC	24 V
Voltage range DC	20 – 30 V
Frequency range	50 – 60 Hz
Rated operational power	typically 50 W / 100 W at O30 / max. 150 W (typically 170 BTU / 341 BTU at O30 / max. 510 BTU)
Protection fuse AC	5 AT
Protection fuse DC	5 AT
Connection compartment	Power supply direct in integrated Ex e connection box
Connections	via screw terminals, green
Wiring	flexible cable up to 2.5 mm <sup>2</sup> (AWG14) fixed cable up to 4 mm <sup>2</sup> (AWG12)
Max. input voltage Um	250 VAC
Plug version FO	LC duplex connector

#### 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	300 cd/m <sup>2</sup>
Display contrast	1000:1
Touch screen	optional, resistive
Touch screen technology	5-wire glass or membrane touch
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.

#### Mechanical Data

Dimensions (WxHxD)	740 mm x 872 mm x 400 mm
Weight	64.5 kg
Material front	Aluminium / stainless steel

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## Mechanical Data

Material back	Stainless steel
Ingress protection	IP66
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 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)
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