Operating and monitoring systems KVM system SERIES 600 Device platform MANTA OS ET-677-DVI3-CAT



SAFE AREA



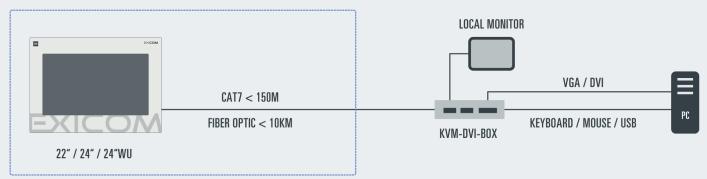
- KVM Operator Station, 24" display, full HD 1920 x 1080
- Zone 1, 2, 21, 22 and Division 2
- Optional resistive glass or foil touch screen
- Data transmission via CAT7 copper cable up to 150 m

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 RFID readers and barcode scanners are useful accessories making work easier and extending functionality. Data is transmitted via CAT7 copper cable up to 150 m.

KVM-SYSTEMS MANTA (SERIES 6X7)

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



Technical Data

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

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 FAC TO DU O DE FEOM DOUTED

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Certifications	ATEX, IECEx, NEC, CEC, EAC, KGS
Certification IECEx	IECEx TUR 11.0075X
Certification ATEX	BVS 11 ATEX E 102 X
Certification EAC	ТС RU C-DE.ГБ04.В00478
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	1A
Power consumption DC	3A
Transfer technology	KVM-DVI3
Ethernet / Data	CAT7
Data cable	CAT7 installation cable AWG 23
Data cable length	max. 150 m
Interface medium	CAT7 Data transmission
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
Rated operational voltage DC	24 V
Voltage range DC	20 – 30 V
Frequency range	50 – 60 Hz
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Protection fuse AC 5 AT Protection fuse DC 5 AT Connection compartment Power supply direct in integrated Ex e connection box Connections via screw ferminals, green Wring flex/ble cable up to 2.5 mm² (AWG14) fixed cable up to 4 mm² (AWG12) Max. input voltage Um 250 VAC Display TFT Colour display Display version TFT Colour display Display size inch 24 Display intensions 16.3 Display dimensions 16.3 Display dimensions 16.3 Display dimensions 16.3 Display infinites 300 cd/m² Display brightness 300 cd/m² Display infinites 1000:1 Touch screen technology 5-wire glass or membrane touch Backlight LED Technology Backlight service life 50000 h at +20 °C Front plate (display) Aluminum <th>Rated operational power</th> <th>typically 50 W / 100 W at O30 / max. 150 W (typically 170 BTU / 341 BTU at O30 / max. 510 BTU)</th>	Rated operational power	typically 50 W / 100 W at O30 / max. 150 W (typically 170 BTU / 341 BTU at O30 / max. 510 BTU)
Connection compartment Power supply direct in integrated Ex e connection box Connections via screw terminals, green Wring ffexible cable up to 2.5 mm² (AWC14) fixed cable up to 4 mm² (AWC12) Max. input voltage Um 250 VAC Display 250 VAC Display version TFT Colour display Display version 2 16.7 million colours Display size inch 24 Display size centimetres 61 Display centimetres 61 Display centimetres 300 cd/m² Display contrast 1000:1 Touch screen optional, resistive Ouch screen technology 5-wire glass or membrane touch Backlight LED Technology Backlight LED Technology Backlight service life 50000 h at +20 °C Cort plate (display) Aluminium Ambient temperature operation -20 °C +55 °C Ambient temperature operation -30 °C +55 °C Cold start temperature operation -30 °C +55 °C Ambient temperature operation -20 °C +55 °C for a maximum of 5 h, for constant operation (247) +	Protection fuse AC	
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Display dimensions 16:9 Display brightness 300 cd/m² Display contrast 1000:1 Touch screen optional, resistive Touch screen technology 5-wire glass or membrane touch Backlight LED Technology Backlight service life 50000 h at +20 °C Front plate (display) Aluminium Ambient Conditions -20 °C +55 °C Ambient temperature operation -20 °C +55 °C Ambient temperature operation -30 °C +55 °C Cold start temperature operation -30 °C +70 °C Cold start temperature operation -30 °C +70 °C Cold start temperature note 1 The 030 version is only available for the AC version devices ! Temperature note 2 Operating 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 ho low the temperature to warm up until everything is clearly visible. Depending on ho low the temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data Tue trans x400 mm Wieight 64.5 kg Material front Aluminium / stainless ste	Total pixels	1920 x 1080
Display contrast 1000:1 Touch screen optional, resistive Touch screen technology 5-wire glass or membrane touch Backlight LED Technology Backlight service life 50000 h at +20 °C Front plate (display) Aluminium Ambient Conditions		16:9
Display contrast 1000:1 Fouch screen optional, resistive Fouch screen technology 5-wire glass or membrane touch Backlight LED Technology Backlight service life 50000 h at +20 °C Front plate (display) Aluminium Ambient Conditions	Display brightness	300 cd/m ²
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Backlight LED Technology Backlight service life 50 000 h at +20 °C Front plate (display) Aluminium Ambient Conditions -20 °C +55 °C Ambient temperature operation -20 °C +55 °C Ambient temperature operation -30 °C +55 °C Cold start temperature -30 °C +70 °C Cold start temperature -10 °C Femperature note 1 The O30 version is only available for the AC version devices ! Femperature note 2 Operating temperature +55 °C for a maximum of 5 h, for constant operation (24/7) +5 Femperature 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 ho low the temperature is, this process may last up to 3 hours. Femperature note general The temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data T40 mm x 872 mm x 400 mm Neight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather <td< td=""><td>Fouch screen</td><td>optional, resistive</td></td<>	Fouch screen	optional, resistive
Backlight service life 50000 h at +20 °C Front plate (display) Aluminium Ambient Conditions -20 °C +55 °C Ambient temperature operation -20 °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) +5 Temperature note 3 Cold start temperature 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 ho 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, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data Other x 872 mm x 400 mm Neight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Fouch screen technology	
Front plate (display) Aluminium Ambient Conditions -20 °C +55 °C Ambient temperature operation -20 °C +55 °C with heater version O30 Storage temperature -30 °C +70 °C Cold start temperature -10 °C Femperature note 1 The O30 version is only available for the AC version devices ! Femperature note 2 Operating 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 ho low the temperature est, shis process may last up to 3 hours. Femperature note general The temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data 740 mm x 872 mm x 400 mm Neight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Backlight	LED Technology
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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) +5 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 ho 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, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data 740 mm x 872 mm x 400 mm Weight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Ambient temperature operation 1	-30 °C +55 °C with heater version O30
The O30 version is only available for the AC version devices ! 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) +5 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 ho low the temperature is, this process may last up to 3 hours. The temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data 740 mm x 872 mm x 400 mm Neight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Storage temperature	-30 °C +70 °C
Temperature note 2Operating temperature +55 °C for a maximum of 5 h, for constant operation (24/7) +5Temperature note 3Cold 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 ho low the temperature is, this process may last up to 3 hours.Temperature note generalThe temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these.Mechanical Data740 mm x 872 mm x 400 mmDimensions (WxHxD)740 mm x 872 mm x 400 mmMeterial frontAluminium / stainless steelMaterial backStainless steelIngress protectionIP66Breatheroptional	Cold start temperature	-10 °C
Femperature 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 ho 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, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these. Mechanical Data 740 mm x 872 mm x 400 mm Dimensions (WxHxD) 740 mm x 872 mm x 400 mm Veight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Temperature note 1	The O30 version is only available for the AC version devices !
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 ho low the temperature is, this process may last up to 3 hours.Temperature note generalThe temperature details apply to a standard device combination with display, keyboar and enclosure. Any additional built-in or added components may have an impact on / change these.Mechanical Data740 mm x 872 mm x 400 mmDimensions (WxHxD)740 mm x 872 mm x 400 mmNeight64.5 kgMaterial frontAluminium / stainless steelMaterial backStainless steelIP66IP66Breatheroptional	Femperature note 2	Operating temperature +55 °C for a maximum of 5 h, for constant operation (24/7) +50 °C
and enclosure. Any additional built-in or added components may have an impact on / change these.Mechanical DataDimensions (WxHxD)740 mm x 872 mm x 400 mmWeight64.5 kgMaterial frontAluminium / stainless steelMaterial backStainless steelIngress protectionIP66Breatheroptional	Temperature note 3	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
Dimensions (WxHxD)740 mm x 872 mm x 400 mmWeight64.5 kgMaterial frontAluminium / stainless steelMaterial backStainless steelIngress protectionIP66Breatheroptional	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.
Weight 64.5 kg Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Mechanical Data	
Material front Aluminium / stainless steel Material back Stainless steel ngress protection IP66 Breather optional	Dimensions (WxHxD)	740 mm x 872 mm x 400 mm
Material back Stainless steel ngress protection IP66 Breather optional	Veight	64.5 kg
ngress protection IP66 Breather optional	Material front	Aluminium / stainless steel
Breather optional	Material back	Stainless steel
Breather optional	ngress protection	IP66
Keyboard note With a keyboard with trackball, the operator station's ingress protection is reduced to	Breather	optional
when the trackball is moved.	Keyboard note	With a keyboard with trackball, the operator station's ingress protection is reduced to IP54 when the trackball is moved.



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

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