

MT-436 – 15" (1024 x 768)

NO. DS200640240102 | EN
2014 | V 03.02.00



MT-436 – 15" (1024 x 768)

Highlights

- Rugged Panel PCs for temperatures ranging between -40 °C up to +55 °C
- Optional available with innovative sunlight-readable display
- Incl. special enclosure for rig floor applications
- Rugged, modular structured product design
- Without additional enclosure suitable for use in hazardous areas / many enclosure and mounting options



Explosion Protection



Explosion Protection Examination Certificate

TÜV 11 ATEX 7103 X
IECEX TUR 11.0015X

Explosion Protection Identification

ATEX directive 94/9/EG

ET-xx6-A-Tx

II 3 (2/3) G Ex d e ia ib mb nA [ia Gb] [ic] IIC T4 Gc

II 3 (2/3) D Ex ia tc [ib Db] [ic] IIIC T80°C Dc IP66

ET-xx6-A-Fx

II 3 (2/3) G Ex d e ia ib mb nA [ib op is Gb] [ic] IIC T4 Gc

II 3 (2/3) D Ex ia tc [ib op is Db] [ic] IIIC T80°C Dc IP66

IECEX

ET-xx6-A-Tx

Ex d e ia ib mb nA [ib Gc] [ic] IIC T4 Gc

Ex ia tc [ib Db] [ic] IIIC T80°C Dc IP66

ET-xx6-A-Fx

Ex d e ia ib mb nA [ib op is Gb] [ic] IIC T4 Gc

Ex ia tc [ib op is Db] IIIC T80°C Dc IP66

GOST-R

ET-xx6-A-Tx

2ExdeiaibmbnA[ib][ic]IICT4

DIP A21 TA80°C, IP66

ET-xx6-A-Fx

2ExdeiaibmbnA[ibopis][ic]IICT4

DIP A21 TA80°C, IP66

NEC / UL

Class I, Division 2, Groups A, B, C, D

Class II, Division 2, Groups F, G

Class III Hazardous Locations

Class I, Zone 2, Group IIC

CEC / CSA

Ex d e ia ib mb nA [ib Gb] [ic] IIC T4 Gc, Type 4X, IP66

Ex ia tc [ib ic] IIIC T80°C Dc, IP66

Class II, Division 2, Groups E, F, G, T80°C

Firmware/Software

- OPEN HMI – open for all software applications
- Ready-to-run operating system in 25 languages
- Windows Embedded Standard 2009 / 7 Ultimate
- Optional installation of visualization software e. g. WinCC flexible® / Factory Talk View® / Vijeo Citect®, etc.

Description

MT-436 – intelligent Panel PCs with high bright 15" monitor suitable for applications in the oil and gas industries, and for machine-level operation in the process industry, hazardous areas, Zone 2, 22. The most innovative feature of the MT-436 terminals is the optionally available SUNLIGHT READABLE display that ensures best image quality and readability even in direct sunlight, and is used worldwide, on oil rigs and in outdoor applications.

The MT-436 can be integrated in the company network architecture via Ethernet, and is able to simultaneously and independently process other on-site applications. This HMI is highly versatile, with intuitive touch screen operation, and customizable function keys.

The MT-436 is ready-to-run worldwide, with pre-installed, multilingual Windows Embedded Standard 2009 or -7 Ultimate operating system (QNX, Linux optional) – without time-consuming installation of drivers or operating systems. All pre-installed operating systems are protected against external manipulations. In the rare case of a system failure, the BACKUP / RECOVERY solution via USB stick allows to immediately restore the original state.

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INMETRO

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Ex d e ia ib mb nA [ib Gb] [ic] IIC T4 Gc

Ex ia tc [ib Db] [ic] IIIC T80°C Dc IP66

ET-xx6-A-Fx

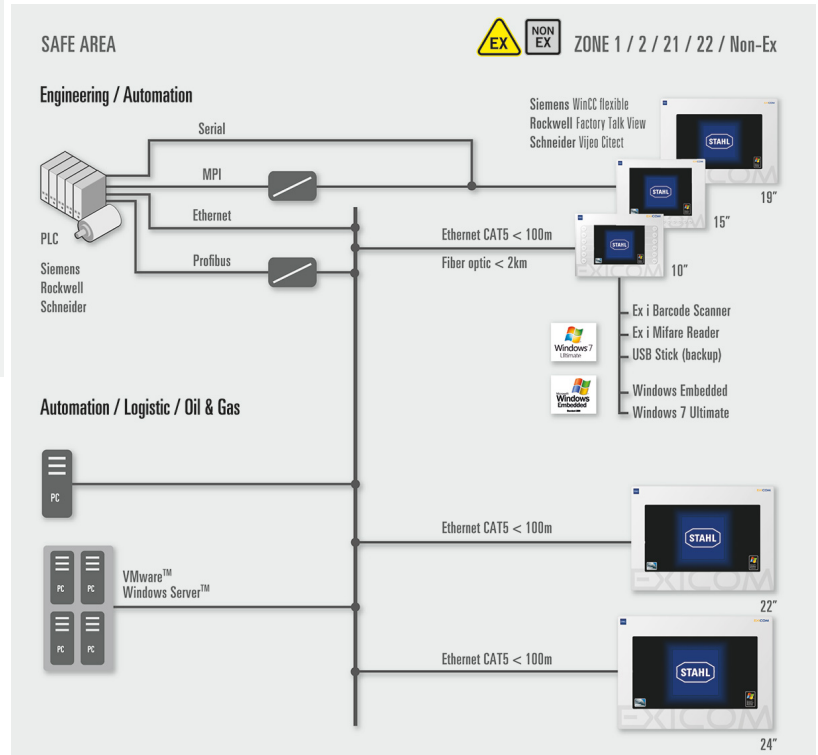
Ex d e ia ib mb nA [ia op is Gb] IIC T4

Ex ia tc [ib op is Db] [ic] IIIC T80°C Dc IP66

Ingress protection

Front and back side IP66

Operating Principle



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Technical Data

Mounting design	Front panel mounting
Display	38 cm (15") TFT color display 16,777,216 colors XGA 1024 x 768 Aspect ratio 4:3 Brightness 350 cd/m ² / SR-display 1000 cd/m ² Contrast 700:1 / SR-display 600:1 8 wire resistive touch screen as standard / 5 wire resistive touch screen for SR
Backlighting	LED technology Service life 500,000 h at +10 °C 70,000 h at +35 °C 50,000 h at +55 °C
Display function keys	8 function keys, polyester film on aluminum plate Switching cycles > 1 million
External keyboard	Yes (optional), 105 / 107 keys, incl. trackball / joystick (Ex ib/ic)
Processor	ATOM 1.6 GHz
RAM	1 / 2 GB
Memory	4 / 16 GB, 128 GB MLC / SLC (Solid State Card)
Memory upgrade optional	Hard drive EXICOM-SHD-xxx 100 GB
Operating system	Windows XP Embedded MUI Windows 7 MUI
Standard Software	WinCC flexible, IFix, RSView (for more software solutions, please refer to the homepage)
Interfaces	1 x Ethernet 10/100BaseTx (Ex nA) or FO 100BaseFx, 100 Mbit (Ex op is) 2 x USB (Ex nA) 2 x USB (Ex ib/ic) 2 x PS/2 (Ex ib/ic) (keyboard, pointing device) 1 x RS-232 / RS-422 / RS-485 (Ex nA) 1 x Audio line out (Ex nA) Optional Interfaces 1 x RSi (Ex ib/ic) data and data supply for readers 1 x RS-232 / RS-422 / RS-485 (Ex nA) WLAN via USB (Ex nA)
Dimensions (W x H x D)	440 x 340 x 165 mm (17.32 x 13.38 x 6.5")
Cutout	427.5 x 327.5 (+/- 0.5) mm (16.83 x 12.89 (+/- 0.02)")
Weight	18 kg (39.6 lbs)
Power supply	24 VDC (20.4 up to 28.8 VDC); 1.2 A; 28.8 W optional: external power supply 90 - 253 VAC
Permissible ambient temperature ranges	Operation -20 °C up to +55 °C* Operation with heater ** -30 °C up to +55 °C* Operation with heater **, enclosure insulation and protection screen -40 °C up to +55 °C* Storage -30 °C up to +60 °C * MT-4x6-A and MT-5x6-A: 5 h maximum operation at +55 °C; continuous operation (24/7) at +50 °C ** The heater has to be designed to ensure that the temperature inside the enclosure of the operating unit does not fall below -20 °C (-30 °C only at the front side)
Heat dissipation	Front plate cooling by heat pipe 50 % through front plate, approx. 50 % through back side
Relative humidity	90 % at +40 °C, non condensing

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Vibration	Operation: 3 up to 22 Hz: 1 mm (0.04") 22 up to 500 Hz: 9.8 m/s ² = 1 g (32 ft/s ² = 0.03 oz) Transportation: 3 up to 9 Hz: 3.5 mm (0.14") 9 up to 500 Hz: 9.8 m/s ² = 1 g (32 ft/s ² = 0.03 oz)
Shock	Operation: 15 g / 11 ms (0.52 oz/11 ms) Transportation: 25 g / 6 ms (0.88 oz/6 ms)
Material front side	Material front side UV-resistant polyester film on seawater-resistant aluminum, incl. touch screen und protective safety glass Optional: stainless steel film on seawater-resistant aluminum, incl. touch screen and protective safety glass
Material back side	Stainless steel
Ingress protection	Front and back side IP66