

ET-406 – 10.4" (800 x 600)

NO. DS200640140100 | EN
2014 | V 03.02.11

STAHL



ET-406 – 10.4" (800 x 600)

Highlights

- Rugged Panel PCs for temperatures ranging between -40 °C up to +55 °C [-40 °F up to +131 °F]
- Rugged, modular structured product design
- Without additional enclosure suitable for use in hazardous areas / many enclosure and mounting options

Explosion Protection

Examination Certificate / Identification



ATEX directive 94/9/EG

TÜV 11 ATEX 7041 X

ET-xx6-A-Tx

II 2 (2) G Ex d e ia ib mb [ia ib] IIC T4 Gb

II 2 (2) D Ex ia tb [ia ib] IIIC T80°C Db IP66

ET-xx6-A-Fx

II 2 (2) G Ex d e ia ib mb [ia ib op is] IIC T4 Gb

II 2 (2) D Ex ia tb [ia ib op is] IIIC T80°C Db IP66

IECEX

TUR 11.0006X

ET-xx6-A-Tx

Ex d e ia ib mb [ia ib] IIC T4 Gb

Ex ia tb [ia ib] IIIC T80°C Db IP66

ET-xx6-A-Fx

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

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

GOST-R

POCC DE.ГБ04.В01741

Operating licence

PCC 00-047986

ET-xx6-A-Tx

2Exdeiaibmb[iaib]IIC T4

DIP A21 TA80°C, IP66

ET-xx6-A-Fx

2Exdeiaibmb[iaibopis]IIC T4

DIP A21 TA80°C, IP66

NEC / UL

20130611-E202379

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

2512677

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

Ex ia tb [ia ib] IIIC T80°C Db, IP66

Class II, Division 1, 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

The ET-406 Panel PC with high bright 10.4" screen and many customizable function keys is the ideal start into the ET-400 series – certified for use in hazardous areas zone 1, 2, 21, 22. This full-fledged PC can be integrated in the company network architecture, and is able to simultaneously and independently process other applications on-site. This HMI is highly versatile, with intuitive touch screen operation, and customizable softkeys and function keys.

The ET-406 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.

Thanks to the modern heat pipe technology combined with protection screen and enclosure heater, the Panel PC operates at temperatures ranging between -40 °C up to +55 °C (+50 °C in permanent operation / with heater and protection screen -40 °C).

ET-406 – 10.4" (800 x 600)

NO. DS200640140100 | EN
2014 | V 03.02.11



INMETRO

UL-BR 12.0265X

ET-xx6-A-Tx

Ex d e ia ib mb [ia ib] IIC T4 Gb

Ex ia tb [ia ib] IIIC T80°C Db IP66

ET-xx6-A-Fx

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

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

CNEX (China)

CNEx14.0065X

Ex d e ia mb [ia ib] IIC T4 Gb

DNV (Det Norske Veritas)

A-12989

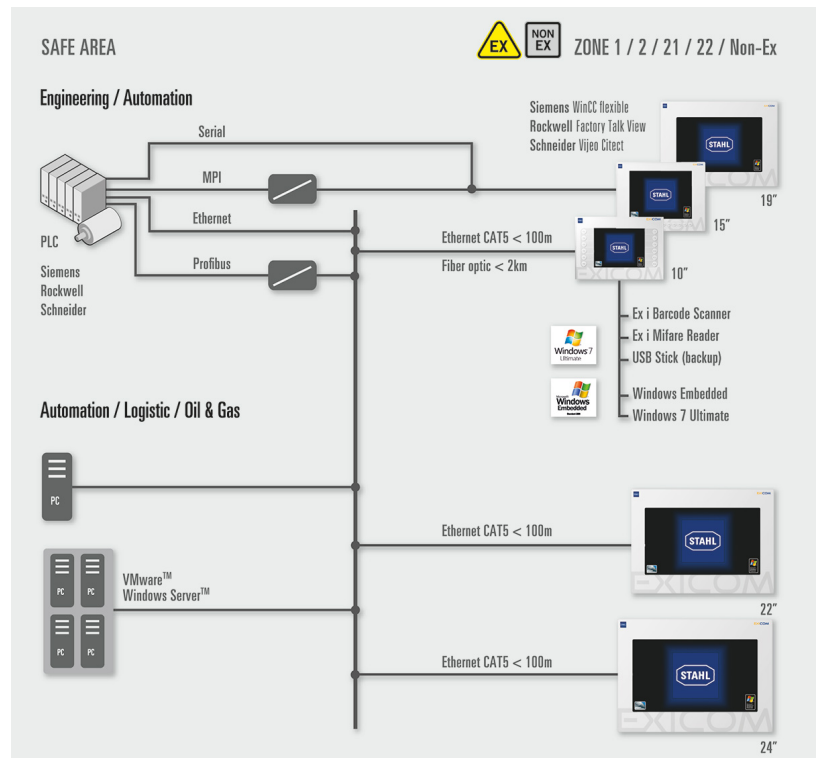
LR (Lloyd's Register)

11/20032

Ingress protection

Front and back side IP66

Operating Principle



ET-406 – 10.4" (800 x 600)

NO. DS200640140100 | EN
2014 | V 03.02.11



Technical Data

| | |
|-------------------------|---|
| Mounting design | Front panel mounting |
| Display | 26 cm (10.4") TFT color display 16.777.216 colors SVGA 800 x 600 Aspect ratio 4:3 Brightness 400 cd/m ² Contrast 700:1 8 wire resistive touch screen as standard |
| Backlighting | LED technology Service life 130,000 h at +10 °C [+50 °F] 55,000 h at +35 °C [+95 °F] 40,000 h at +55 °C [+131 °F] |
| Display function keys | 12 function keys 10 soft keys Cursor keys 12 alphanumeric keys 14 system keys Polyester film on aluminum plate |
| External keyboard | Yes (optional), 105 / 107 keys, incl. trackball / joystick (Ex ia) |
| 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 e) or FO 100BaseFx, 100 Mbit (Ex op is) 2 x USB (Ex e) 2 x USB (Ex ib) 2 x PS/2 (Ex ia) (keyboard, pointing device) 1 x RS-232 / RS-422 / RS-485 (Ex e) 1 x Audio line out (Ex e) Optional Interfaces 1 x RSi (Ex ib) data and data supply for readers 1 x RS-232 / RS-422 / RS-485 (Ex e) WLAN via USB (Ex e) |
| Dimensions (W x H x D) | 400 x 270 x 150 mm (15.75 x 10.63 x 5.90") |
| Cutout | 385.5 x 257.5 (+/- 0.5) mm (15.17 x 10.13 (+/-0.02)") |
| Weight | 13.6 kg (29.9 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 |

ET-406 – 10.4" (800 x 600)

NO. DS200640140100 | EN
2014 | V 03.02.11



| | |
|---|---|
| Permissible ambient temperature ranges | Operation -20 °C up to +55 °C* [-4 °F up to +131 °F] Operation with heater ** -30 °C up to +55 °C* [-22 °F up to +131 °F] Operation with heater **, enclosure insulation, protection screen -40 °C up to +55 °C* [-40 °F up to +131 °F] Storage -30 °C up to +60 °C [-22 °F up to +140 °F] * ET-4x6-A and ET-5x6-A: 5 h maximum operation at +55 °C [+131 °F]; continuous operation (24/7) at +50 °C [+122 °F] ** The heater has to be designed to ensure that the temperature inside the enclosure of the operating unit does not fall below -20 °C [-4 °F] (-30 °C [-22 °F] only at the front side) |
| Heat dissipation | Front plate cooling by heat pipe approx. 50 % through front plate, approx. 50 % through back side |
| Relative humidity | 90 % at +40 °C [+104 °F], non condensing |
| 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 | UV-resistant polyester film on seawater-resistant aluminum, incl. touch screen und protective safety glass |
| Material back side | Stainless steel |
| Ingress protection | Front and back side IP66 |