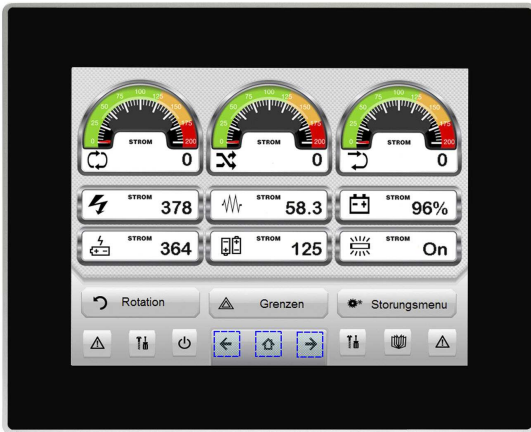**EXOR INTERNATIONAL**

Tech-note

UniOP eTOP410

The UniOP eTOP Series 400 HMI products combine state-of-the-art features and top performance with an oustanding design. They are the ideal choice for all demanding HMI applications including factory and building automation.

The eTOP410 features an industry standard 10.4" TFT display with VGA resolution and full vector graphic capabilities. The JMobile software offers full vector graphic capabilities and plenty of connectivity options.

- 10.4" TFT color display, LED backlight
- 640x480 pixel (VGA) resolution, 64K colors
- Advanced vector graphics
- Resistive touchscreen
- 128 MB flash memory
- 10/100 Ethernet interface
- USB interface
- Connection to bus systems using optional plug-in modules
- Slim design. Mounting depth less than 50mm
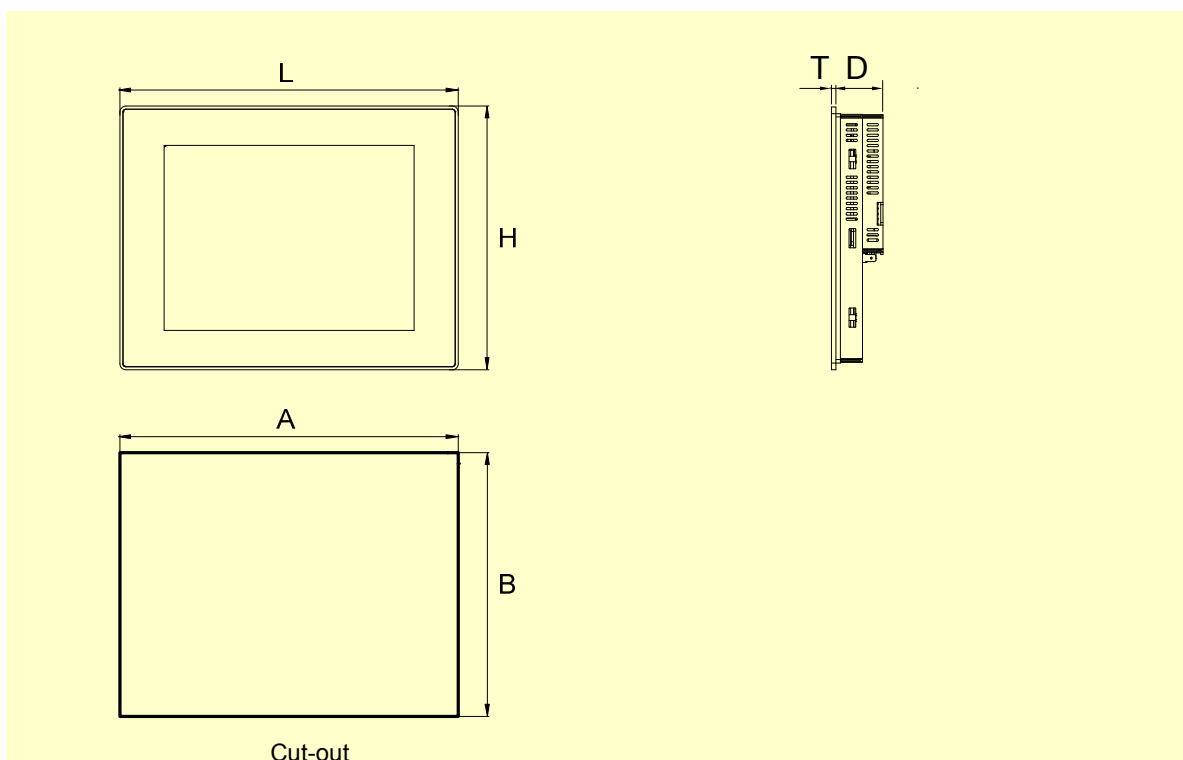- JMobile runtime included

Highlights

The eTOP Series 400 HMI panels have been designed to run the JMobile software.

- JMobile runtime included. Full compatibility with JMobile Studio.
- Full vector graphic support. Native support of SVG graphic objects. Trasparency and alpha blending.
- Full object dynamics: control visibility and transparency, move, resize, rotate any object on screen. Change properties of basic and complex objects.
- TrueType fonts
- Multilanguage applications. Easily create and manage your applications in multiple languages to meet global requirements. Far East languages are supported. Tools available in JMobile Studio support easy third-party translations and help reducing development and maintenance costs of the application
- Data display in numerical, text, bargraph, analog gauges and graphic image formats.
- Rich set of state-of-the-art HMI features: data acquisition, alarm handling, scheduler and timed actions (daily and weekly schedulers, exception dates),

recipes, users and passwords, e-mail and RSS feeds, rotating menus

- Includes support for a wide range of communication drivers for Factory and Building Automation systems.
- Multiple drivers communication capability.
- Remote monitoring and control. Client-Server functionality. Mobile clients supported.
- Off-line and On-line simulation with JMobile Studio.
- Powerful scripting language for automating HMI applications. Script debugging improves efficiency in application development.
- Rich gallery of symbols and objects
- Project & page templates
- Optional plug-in modules for fieldbus systems, networks and controllers. Compatible with TCM and SCM modules.
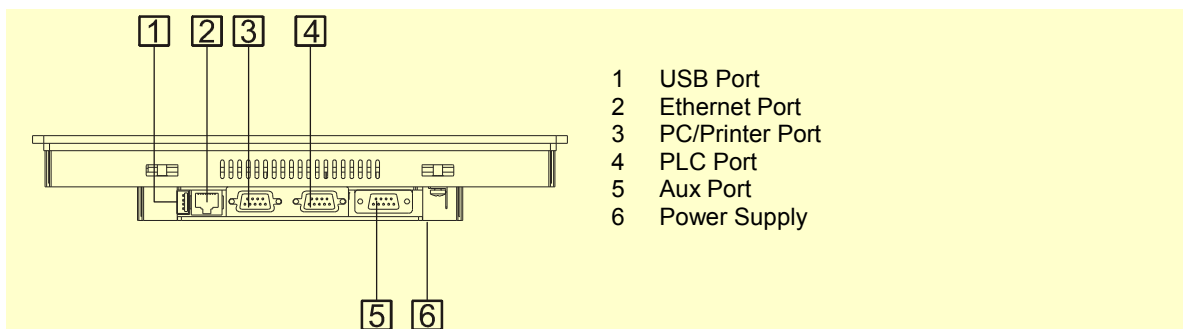
Tech-note

Technical Data

Display

Type	TFT
Resolution	640x480, VGA
Active display area	10.4" diagonal
Colors	64K
Backlight	LED
Brightness	250 Cd/m^2 typ.
Dimming	Yes

System Resources

Operating System	Microsoft Windows CE 6.0
User memory	128 MB Flash
RAM	256 MB DDR

Operator Interface

Touchscreen	Analog resistive
User LED indicators	1
System LED indicators	4

Interfaces

Ethernet port	10/100 Mbit
USB port	Host interface, version 2.0
Serial Port 1	RS-232, RS-485, RS-422, software configurable
Serial Port 2	RS-232, RS-485, RS-422, software configurable
Aux port	Yes, optional fieldbus and controller modules

Functionality

Vector graphics	Yes, includes SVG support
Object dynamics	Yes. Visibility, position, size, rotation for most object types.
TrueType fonts	Yes
Multiple driver communication	Yes, max 2 drivers
Data acquisition and trend presentation	Yes. Flash memory storage limited only by available memory
Multilanguage	Yes, with runtime language switching.
Recipes	Yes. Flash memory storage limited only by available memory
Alarms	Yes
Historical event list	Yes
Users and passwords	Yes

Hardware Real Time Clock	Yes, with battery back-up
Screen saver	Yes
Buzzer	Yes, audible feedback for touchscreen

Ratings

Power supply voltage	24 Vdc (18 to 30 Vdc)
Current consumption	0.75 A at 24 Vdc(max.)
Fuse	Automatic
Weight	Approx 2.1 Kg
Battery	Rechargeable Lithium battery, not user-replaceable

Environmental Conditions

Operating temperature	0 to 50 °C (vertical installationmounting)
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 – 85 % relative humidity, non-condensing
Protection class	IP66 (front panel) IP20 (rear)

Dimensions

Faceplate LxH	287x232 mm
Cutout AxB	276x221 mm
Depth D+T	42mm+4mm

Approvals

CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	UL508 Listed

Tech-note

Dimensions

L

H

T D

A

B

Cut-out

Connections

1   USB Port
2   Ethernet Port
3   PC/Printer Port
4   PLC Port
5   Aux Port
6   Power Supply

Ordering Information

Model	Part Number	Description
eTOP410-White	ETOP410U101	10.4" TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile run-time.
eTOP410-Grey	ETOP410U201	10.4" TFT color touchscreen with Ethernet and USB interfaces. Grey front panel. JMobile run-time.
eTOP410-Black	ETOP410U301	10.4" TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile run-time.
PROT-14	R-PROT14	Disposable protection foil for 10.4" eTOP touch panels (10 pieces).
PROT-20	R-PROT20	Disposable protection foil for 10.4" eTOP touch panels (10 pieces). UV resistant.