# eSMART04M Tech-Note

## HMI 4,3" TFT Resistive touch, 4 GB Flash memory, 1x Ethernet

- 4.3" TFT color display, LED backlight
- 480x272 pixel (WVGA) resolution, 64K colors
- Resistive touchscreen
- Ethernet port
- USB port

# Highlights

The eSMART Series HMI products combine state-of-the-art features and top performance with an oustanding design. They have been designed to offer an outstanding price/performance ratio for challenging applications. They are the ideal choice for HMI applications including factory and building automation.
eSMART04M features a bright 4.3" TFT widescreen (16:9) display with a fully dimmable LED backlight.
The eSMART HMI products have been designed to run the JMobile software.

- Compatible with JMobile Studio.
- Full vector graphic support. Native support of SVG graphic objects, trasparency and alpha blending.
- Screen object dynamics: control visibility and transparency, move, resize, rotate any object on screen. Change properties of basic and complex objects.
- Multilanguage applications with TrueType fonts. Easily create, install and maintain applications in multiple languages to meet global requirements.
- Data display in numerical, text, bargraph, analog gauges and graphic image formats.
- Rich set of state-of-the-art HMI features: data acquisition and logging, trend presentation, alarm handling, scheduler and timed actions (daily and weekly schedulers, exception dates), recipes, security and user management, e-mail and RSS feeds.
- Wide selection of communication drivers available with multiple-driver communication capability.
- Remote monitoring and control with Client-Server functionality.
- Off-line and on-line simulation with JMobile Studio.
- Powerful scripting language for automating HMI applications. Efficient script debugger improves productivity in application development.
- Rich gallery of objects and symbols


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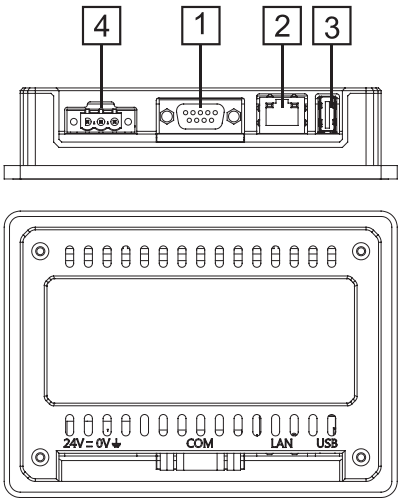
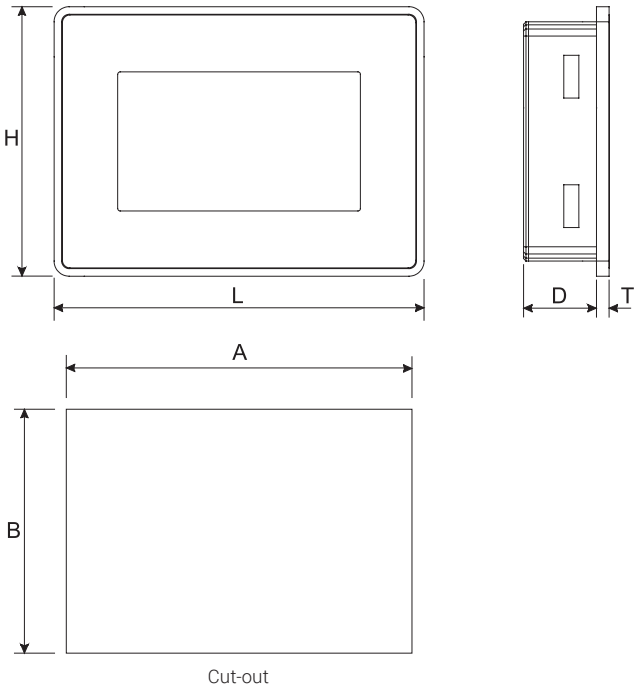
# eSMART04M - Technical Data

| System Resources | |
|---|---|
| Display - Colors | 4.3" TFT 16:9 - 64K |
| Resolution | 480x272 |
| Brightness | 200 Cd/m² typ. |
| Dimming | Yes |
| Touchscreen | Resistive |
| CPU | 32-bit RISC single core - 1 GHz |
| Operating System | Linux 3.12 |
| Flash | 4 GB |
| RAM | 512 MB |
| Real Time Clock, RTC Back-up, Buzzer | Yes |
| **Interface** | |
| Ethernet port | 1 (port 0 - 10/100) |
| USB port | 1 (Host v. 2.0, max. 500 mA) |
| Serial port | 1 (RS-232, RS-485, RS-422, software configurable) |
| SD card | No |
| Expansion | No |
| **Ratings** | |
| Power supply | 24 Vdc (10 to 32 Vdc) |
| Current Consumption | 0.25 A max. at 24 Vdc |
| Input Protection | Automatic |
| Battery | Yes (Supercapacitor) |
| **Environment Conditions** | |
| Operating Temp | 0 to 50 °C (vertical installation) |
| Storage Temp | -20°C to +70°C |
| Operating / Storage Humidity | 5-85% RH, non condensing |
| Protection Class | IP66 (front), IP20 (rear)<br>Type: 2, 4X |
| **Dimensions and Weights** | |
| Faceplate LxH | 147x107 mm (5.78x4.21") |
| Cutout AxB | 136x96 mm (5.35x3.78") |
| Depth D+T | 29+5 mm (1.14+0.19") |
| Weight | Approx 0.4 Kg |
| **Approvals** | |
| CE | Electromagnetic Compatibility (EMC) - Directive 2014/30/EU |
| ATEX | Zone 2: II 3 G  Ex ic ec IIC T6 Gc |
| UL | cULus: UL508 |
| UL | cULus: Class 1 Div 2 |
| DNV-GL | Yes |
| EU RO MR | Yes |
| RCM | Yes |




1 Serial Port
2 Ethernet Port
3 USB port (vers. 2.0 - 1.1)
4 Power Supply




Cut-out

# Ordering Information

| Model | Part Number | Description |
|---|---|---|
| eSMART04M | +ESMA04MU301 | HMI 4,3" TFT, 480x272, Resistive touch, 4 GB Flash memory, 1x Ethernet,  JMobile runtime |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