

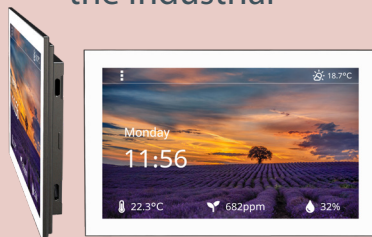


# Products & Solutions



## Display Part

### mControl the Industrial



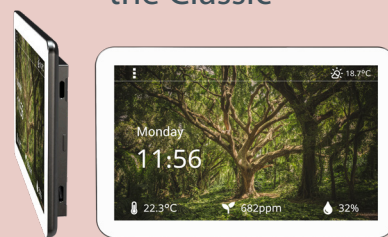
5", 7", 10" or 15" IPS display  
black or white  
wall or panel mounted  
IP65 with additional seal

### mTouch the Modern



4", 7" or 10" IPS display  
black or white  
wall mounted

### eTouch the Classic



4", 5", 7" or 10" IPS display  
black or white  
wall mounted

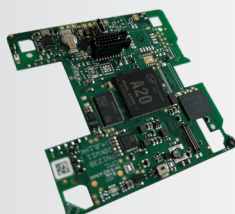
## CPU Board

### DM0 the Industrial



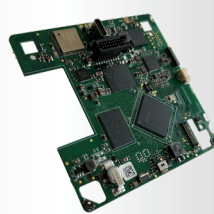
Dual-Core ARM™  
Cortex A7  
256MB DDR3 internal  
RAM  
4-64 GB eMMC

### DM1 the Classic



Dual-Core ARM™  
Cortex A7  
Mali400M2 GPU  
512-1024 MB DDR3  
RAM  
4-64 GB eMMC

### DM2 the Powerful



Quad-Core ARM™  
Cortex A53  
GE8300 GPU  
512-4096 MB  
LPDDR4 RAM  
4-128 GB eMMC

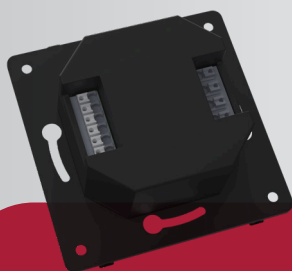
### DM3 the NextGen

coming soon

Octa-Core ARM™  
Cortex A55  
G57 MC01 GPU  
512-4096 MB  
LPDDR4 RAM  
4-128 GB eMMC

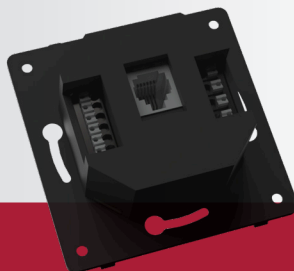
## Backplate

### X1E/X2E



110-230V AC  
RS485  
2 analog inputs  
1 or 2 relay outputs  
1 analog output

### RJ11



110-230V AC  
RS485  
2 analog inputs  
1 analog output

### ETH/POE I



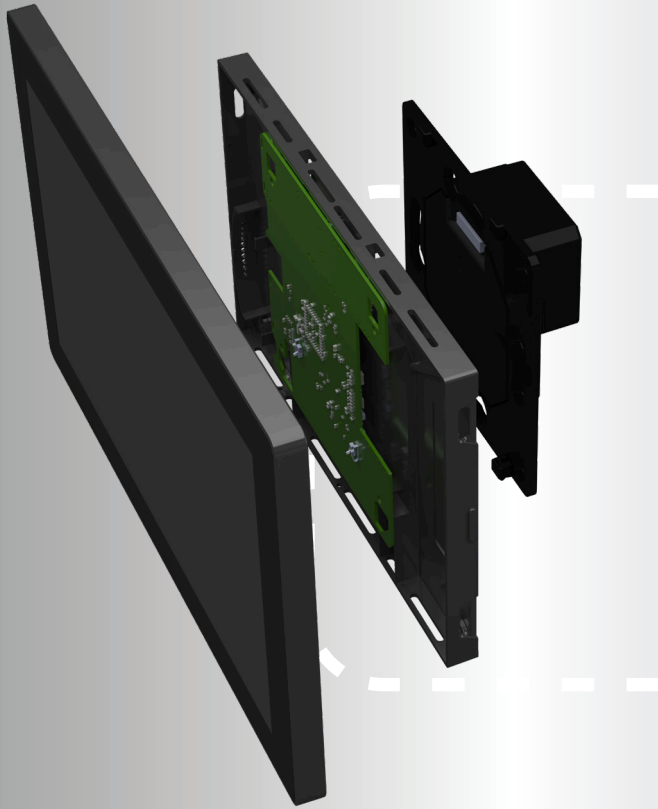
24-48V DC or 24V AC  
RS485  
Ethernet (PoE)  
USB2.0

### custom

create a customized  
backplate that meets  
your specific needs.  
Whether you require  
sensors, power  
supply options, or  
other features, we can  
tailor a solution to fit  
seamlessly into your  
project.

# MEC is modular

## Build your own system



### Integrated Sensors

- Temperature/Humidity
- Ambient Light
- Air Quality/ Co2 (optional)
- Proximity Sensor (optional)

### Interfaces (optional)

- Ethernet, WIFI, Bluetooth
- CAN, ZWave, USB
- Zigbee, Thread, KNX
- Modbus, BACnet, Matter

The modular **MEC premium smart touch panels** consist of **three different parts**

- **Display part**
- **CPU board**
- **Backplate**

Choose from our exclusive range of designs tailored to suit your specific use case and preferences.

Enjoy the flexibility of combining individual parts seamlessly to create the perfect solution for your needs.

Customize your setup further with optional additional sensors to expand functionality as needed. With our range of interfaces, you can effortlessly interact with your system, with interface options varying depending on the components you select.

**Do you have any additional requirements?**  
**Do not hesitate to ask for your custom premium panel!**

**5"**

**IPS display with capacitive touch**  
**black or white**  
**800 x 480 px**  
**Dimension: 145 x 98 x 14 mm**



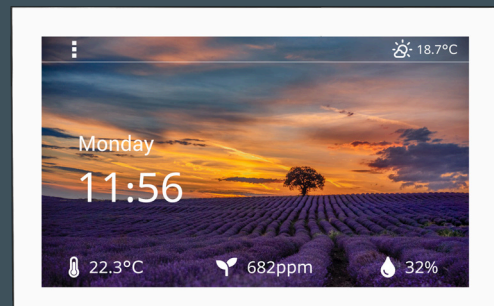
**7"**

**IPS display with capacitive touch**  
**black or white**  
**1024 x 600 px**  
**Dimension: 177 x 110 x 14 mm**



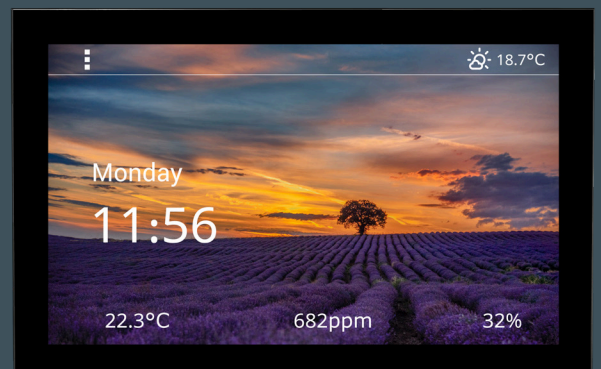
**10"**

**IPS display with capacitive touch**  
**black or white**  
**1920 x 1200 px**  
**Dimension: 249 x 166 x 14 mm**



**15"**

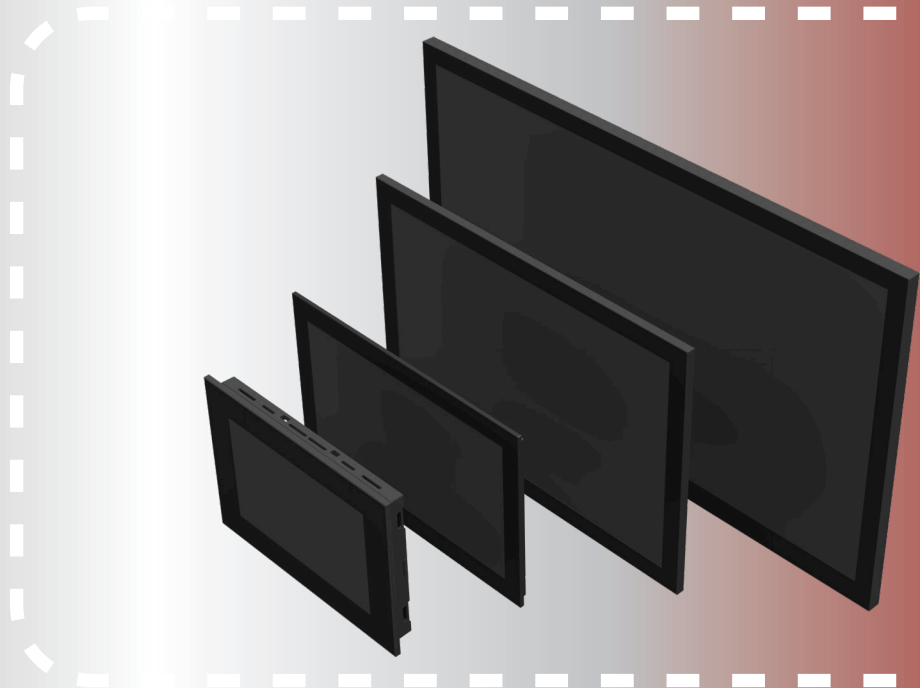
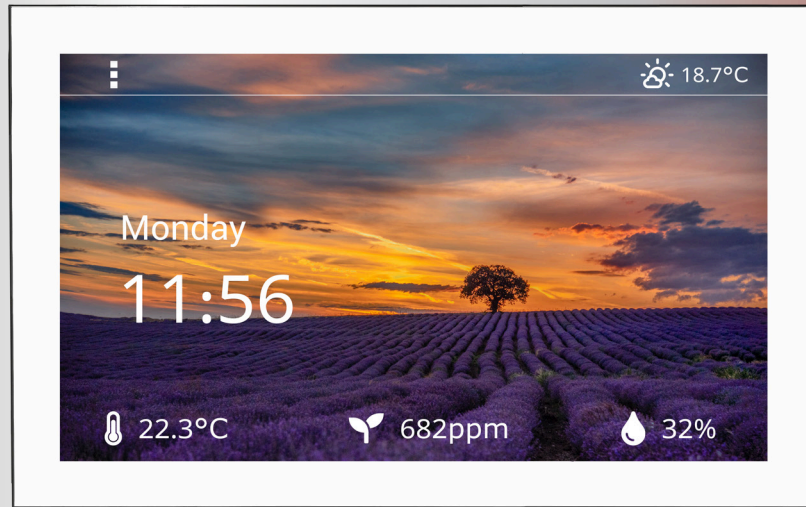
**IPS display with capacitive touch**  
**black or white**  
**1920 x 1080 px**  
**Dimension: 358 x 211 x 14 mm**





# mControl

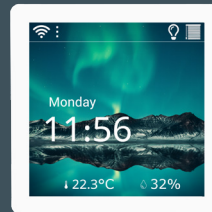
## the industrial panel



mControl, the ultimate solution tailor-made for industrial environments. Designed with precision, its sleek and ultra-slim housing offers a remarkable blend of cleanliness and sharpness, making it the perfect fit for seamless integration into panels. Experience unparalleled durability and protection with optional seals, ensuring splash-proof performance even in the harshest conditions. Personalize your setup with ease – mControl comes in classic black or pristine white by default, while the choice between robust aluminum and resilient plastic for the housing material allows you to tailor the device to your specific requirements.

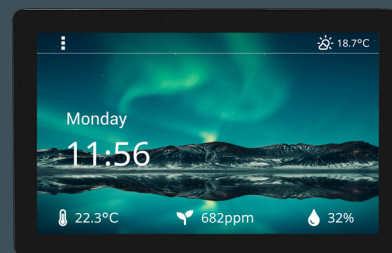
**4"**

IPS display with capacitive touch  
black or white  
480 x 480 px  
Dimension: 86 x 86 x 14 mm



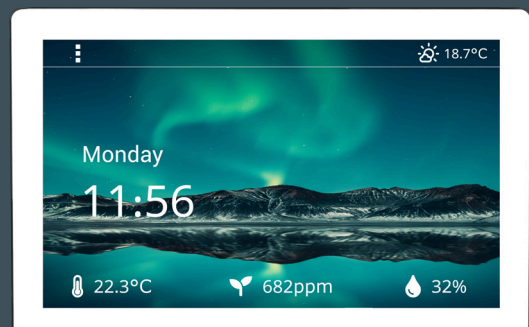
**7"**

IPS display with capacitive touch  
black or white  
1024 x 600 px  
Dimension: 177 x 110 x 14 mm



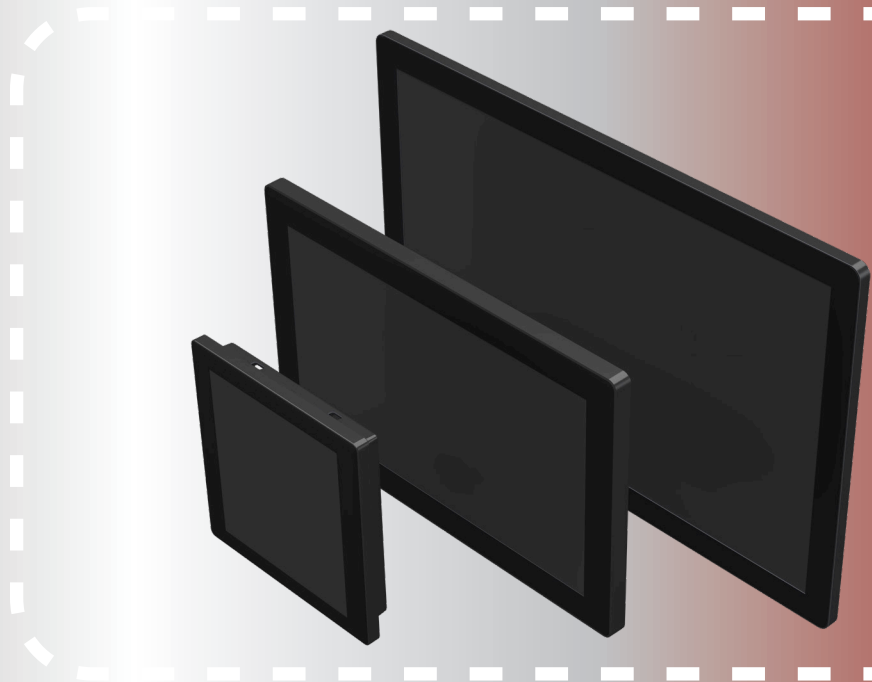
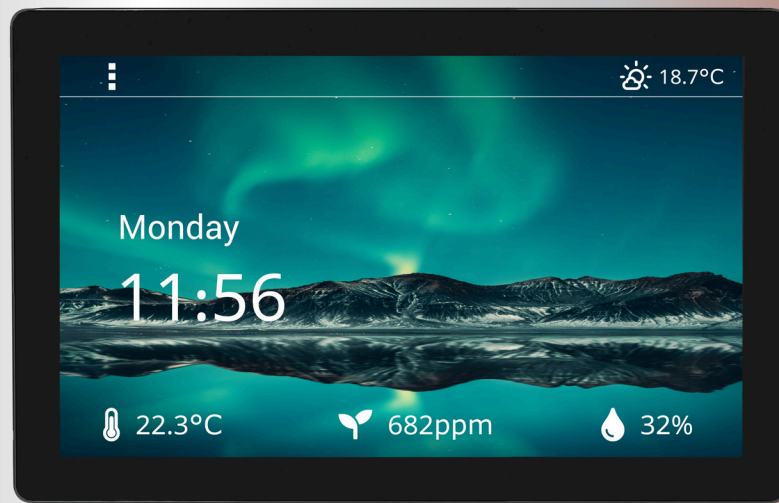
**10"**

IPS display with capacitive touch  
black or white  
1920 x 1200 px  
Dimension: 249 x 166 x 14 mm



# mTouch

## the modern panel

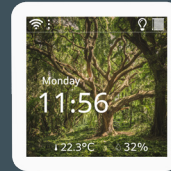


Innovation meets elegance with mTouch – the modern panel. Our cutting-edge design boasts a modern aesthetic that seamlessly integrates into any smart home environment.

Our sleek display glasses are available in classic black or pristine white, allowing you to customize your panel to suit your aesthetic preferences. Elevate your living space with mTouch's modern design, setting the stage for convenience and comfort.

**4"**

**IPS display with capacitive touch**  
**black or white**  
**480 x 480 px**  
**Dimension: 86 x 86 x 14 mm**



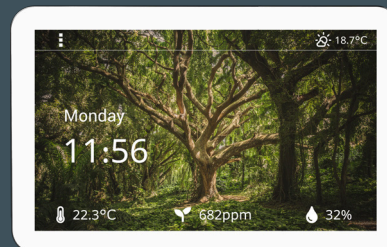
**5"**

**IPS display with capacitive touch**  
**black or white**  
**800 x 480 px**  
**Dimension: 129 x 86 x 14 mm**



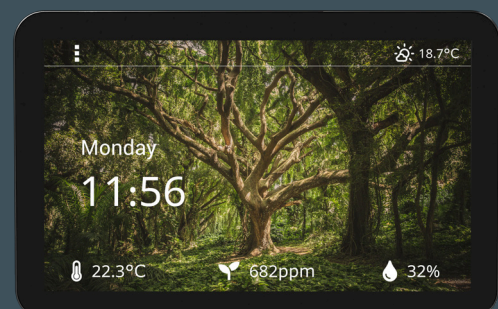
**7"**

**IPS display with capacitive touch**  
**black or white**  
**1024 x 600 px**  
**Dimension: 176 x 110 x 14 mm**



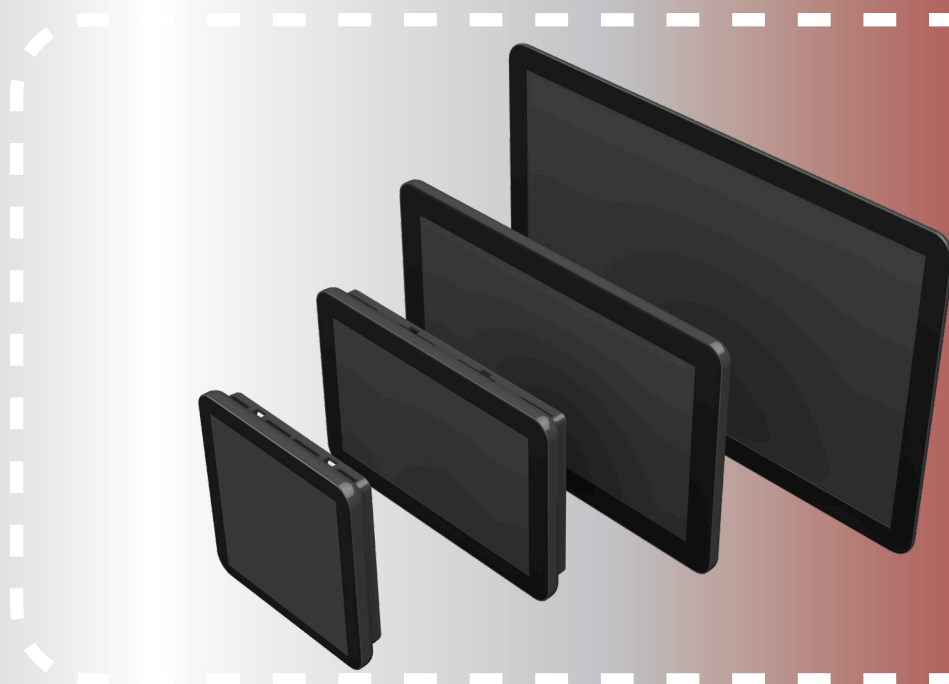
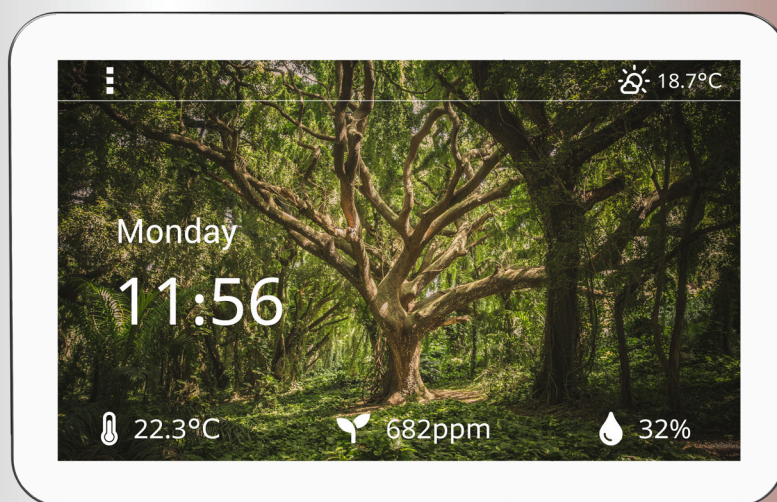
**10"**

**IPS display with capacitive touch**  
**black or white**  
**1920 x 1200 px**  
**Dimension: 249 x 166 x 14 mm**



# eTouch

## the classic panel



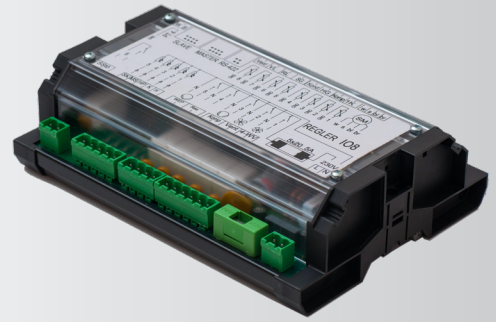
### Timeless Elegance for Smart Home Control

Transform your living space with eTouch's classic design. Its ultra-slim housing is designed for seamless mounting, effortlessly blending into your home decor. Choose from black or white display glasses and from a range of display sizes to complement your home decor and select the housing material that best suits your aesthetic preferences.



## Custom IO board

Tailored to the unique needs of our customers, we specialize in developing custom IO boards. These boards provide various digital and analog inputs and outputs, ensuring versatility and adaptability for diverse applications. From processor power to communication interfaces, we customize each aspect according to specific use cases.



## Custom display panels

At MEC, we understand the importance of tailored solutions to meet the unique needs of our clients. That's why we offer a range of customizable premium display panel, built upon existing designs and ready to be individually customized to your specifications.

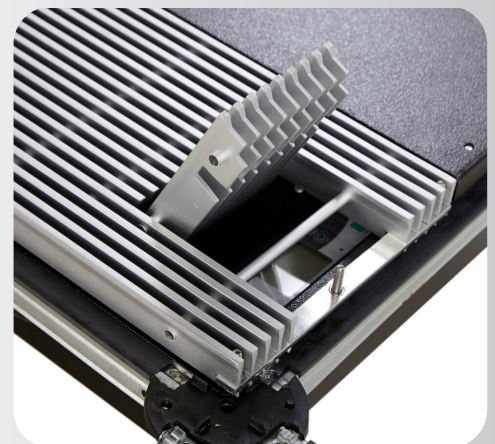
Whether you require specific dimensions, enhanced functionalities, or unique branding elements, our team will work closely with you to ensure your display device aligns perfectly with your vision.



## Custom control projects

As unique as you.  
Because each challenge is different.

With years of experience in control technology, MEC is your trusted partner for all your regulation needs. Our team brings extensive expertise in designing and implementing sophisticated control systems that optimize efficiency and performance across various industries.



# MEC is development

## we develop your custom project



Since 1979, MEC electronics has become the first point of contact for customized hardware and software solutions in the field of control technology. This know-how from more than 35 years of experience enables us to combine the three cornerstones of our company consisting of technology, sensor technology, and control logic in individual concepts.

With MEC's standard products as your foundation, the possibilities for customization are endless. Whether you require different sizes, colors, or housings, or if you need additional sensors or interfaces, we've got you covered.

Our team of experts is here to assist you every step of the way. Simply let us know your requirements, and we'll work closely with you to bring your vision to life. With MEC, creating your own unique design has never been easier.

Don't settle for off-the-shelf solutions – unleash your creativity with MEC customization options.

**Contact us today to get started!**

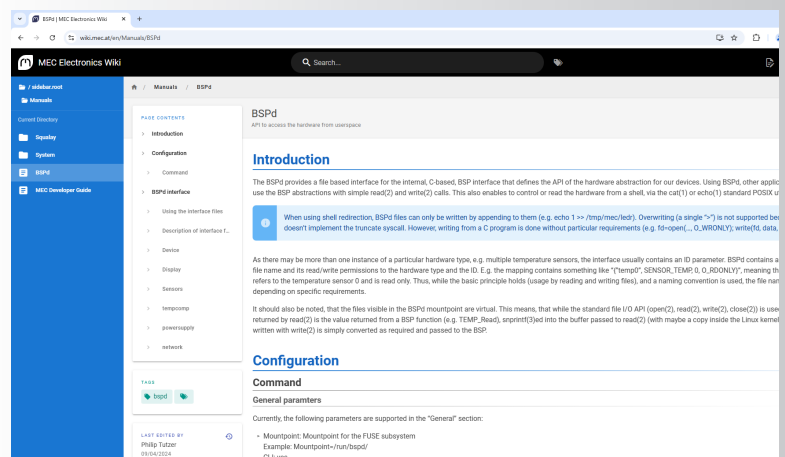
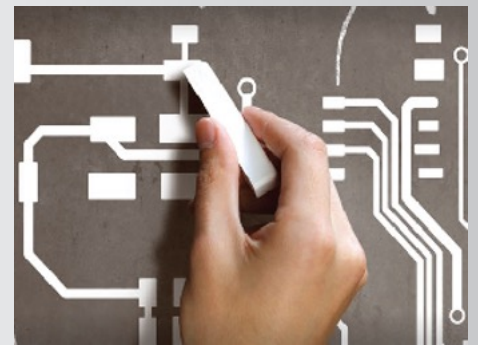
## Linux and Android

- **Debian**, available for all platforms
- **Yocto BSP**, available for all platforms
- **Android 14**, available for DM2 and DM3



## Tools and documentation to start developing

- The **Developer Guide** offers insights into hardware access, software development, and application building and deployment, with a particular emphasis on QT.
- The **BSPd interface guide** serves as documentation detailing the procedures for accessing the hardware abstraction interface.
- The **Mec Squalay documentation** outlines recommended workflows, specifically focusing on the Debian Buster variant.
- The **Squalay Update Documentation** provides instructions on updating the panels.



# Operating System and Applications

At MEC, we believe in giving you the freedom to unleash your creativity. That's why our devices are free programmable.

Take full control of your projects by developing your own applications from scratch. With MEC's comprehensive development environment, you have the power to customize every aspect of your device to suit your specific needs. Need assistance along the way? MEC offers guided development support to help you overcome any obstacles you may encounter. Our team of experts is here to provide guidance and advice as you bring your ideas to fruition.

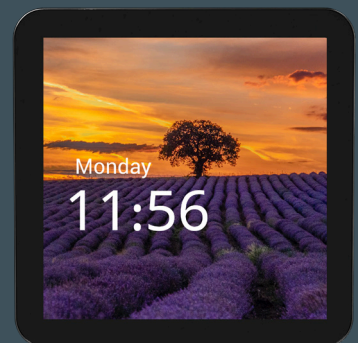
## Applications

### MecZero

This application provides a detailed overview of the system and its hardware, including sensor readings, operating system status information, and various configuration options.

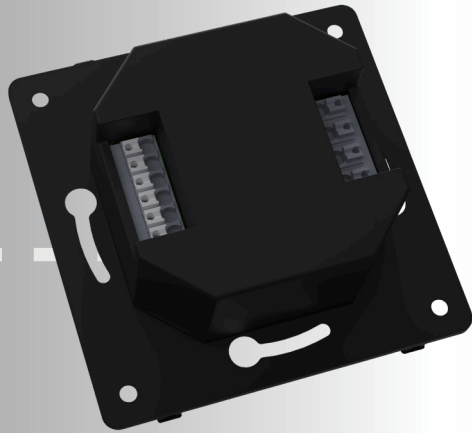
### MecOne

A thermostat sample application that exemplifies potential applications achievable with the panels, featuring a configuration tool for adding/removing features such as light controls, weather service, Modbus RTU/TCP, and more.



## Interfaces (platform dependent)

- MQTT
- Bluetooth
- Apple Homekit
- Amazon Alexa binding
- Matter
- Bluetooth (optional)
- NFC (optional)
- Zwave (optional)
- Dali (optional)
- KNX (optional)
- Thread (optional)



### **X1E/X2E**

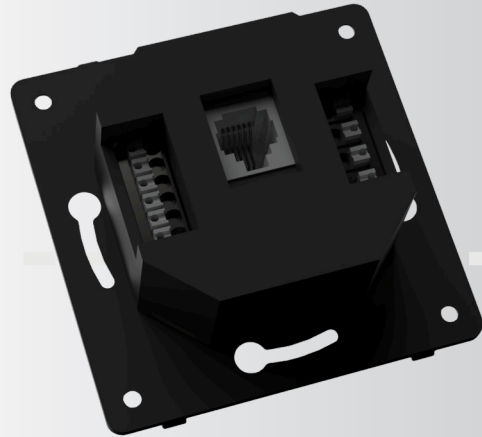
A wide range of applications including 2x 5A (X2E) or a powerful 10A (X1E) relays.

#### **Power Supply:**

- 110-230V AC

#### **Interfaces:**

- 2x 5A relays (X2E)
- 1x 10A relays (X1E)
- 1x RS 485
- 1x Analog Output 10 V DC
- 2x Analog Input for Sensors



### **RJ11**

A focus on power distribution, versatile interfaces and communication.

#### **Power Supply:**

- 110-230V AC

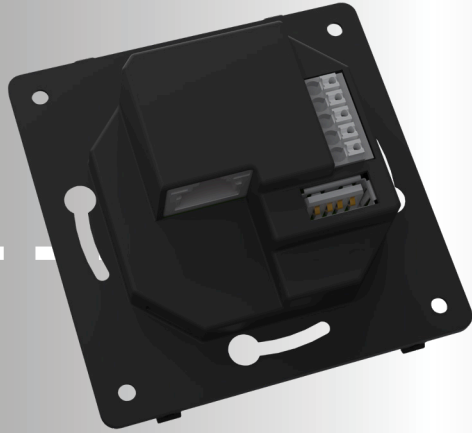
#### **Interfaces:**

- 1x RS 485
- 2x Analog Output 12 V DC
- 2x Digital Inputs for Sensors



# mFlush

## backplates to mount the panel



### POE I

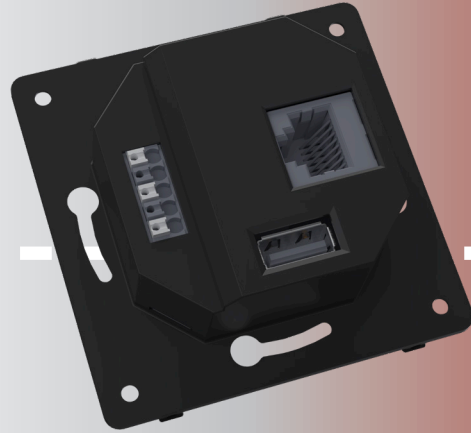
An all-star functionality that covers all your needs and fits in tight spots with little space

#### Power Supply:

- 24-48V DC
- 24V AC

#### Interfaces:

- 1x Ethernet (PoE)
- 1x RS 485
- 1x USB 2.0



### ETH

A basic combination of functions for numerous applications

#### Power Supply:

- 24-48V DC
- 24V AC

#### Interfaces:

- 1x Ethernet
- 2x RS 485
- 1x USB 2.0

# mecIO

## create your own control



### mecIO CONTROLLER

Compact and extensible high-performance controller with 14 inputs/outputs

#### Supply:

- 12-36 VDC

#### Interfaces:

- 1x Ethernet (10/100 Mbps)
- 2x USB 2.0
- 1x RS485
- 1x RS485 galvanic isolation
- 4 Multi IO
- 8 Temperature Inputs
- 2 Relays: NO 8A

### mecIO EXTENSION

Extension with additional 31 inputs/outputs for the MECIO controller

#### IO's:

- 16 Temperature inputs
- 8 Multi IO

#### Relays:

- 4x NO 8A
- 3x NO-NC 12A



compatible with  
Assemble

<https://reisenbauer.solutions/>



# mecMeter

## we measure your energy



Maximize efficiency with our **customizable three-phase energy meter** in a **slim 3 TE DIN-rail housing**. Gain full control with **40+ key measurements**, including voltage, current, power (active, reactive, and apparent), frequency, power factor, and phase angles. Designed for **versatility**, it seamlessly adapts to different current inputs via **current transformers**.

### Supply:

- 230 VAC
- 12 VDC (optional)

### Interfaces:

- Ethernet, WIFI, LTE
- RS485, Bluetooth
- Powerline, USB

### IO's:

- 12 VDC output (optional)
- 4 S0 inputs
- 2 Relays (SG ready)

### Protocol:

- Modbus TCP (SunSpec based)
- JSON, XML, REST API
- MQTT

## SMD assembling

### 2 SMT line (med. size)

- 2 Europlacer PnP
- 100.000 cph IPC
- Part size: 01005 to 50 x 50mm
- Built in LCR meter
- 3D SPI
- 3D AOI

### 1 SMT line (small size)

~2.000 cph IPC



## THT assembling

- Computer guided assembling line
- Small batch assembling units
- Modern selective soldering unit with Nitrogen atmosphere and built in AOI
- Wave soldering unit



## Inspection

### 100% 3D AOI and SPI inspection

#### Functional test

- Own design and assembling department
- Electrical measurement, programming, RF test, .....
- Automatic display inspection
- Visual
- Haptic touchscreen test

### 3D x-ray inspection

### Full traceability



## Final assembly

- Product specific assembly line
- Mechanical assembling either by glue, screw or manual
- Final testing/programming
- Optical inspection
- Individual or bulk packaging



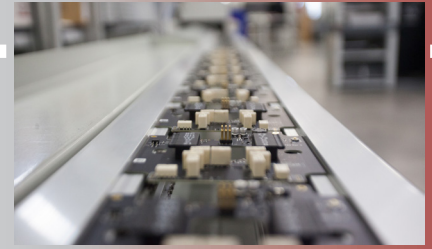
## After sale service

- Repair and analysis
- Obsolete management
- 2nd source management



# MEC is production

## we manufacture your product



### **Discover World-Class Electronics Manufacturing Services at MEC Electronics!**

Welcome to MEC Electronics, your reliable partner for top-notch Electronics Manufacturing Services (EMS).

**Cutting-edge Manufacturing Facilities:** Our manufacturing facilities include a highly precise SMD line and two selective soldering machines, enabling us to handle even the most demanding components and designs. With a focus on efficiency and quality, we provide you with the assurance that your products are in the best hands.

**Comprehensive Testing Systems:** At MEC Electronics, we understand the importance of quality and reliability. Therefore, we have a range of advanced testing systems in place to ensure that each product meets our stringent quality standards. From functionality tests to environmental assessments, you can rely on your products meeting the highest standards.

**From Components to Finished Devices:** Our comprehensive range of capabilities allows us to manufacture your products from SMD component to finished device. With an experienced team of professionals by your side, you can trust us to bring your visions to reality, no matter how complex they may be.

**Your Trusted Partner:** At MEC Electronics, we value partnerships and long-term relationships. We work closely with our customers to provide tailored solutions that meet their specific requirements. Our commitment to excellence and customer satisfaction makes us your trusted partner for electronics manufacturing services.

**Contact Us Today:** Ready to take your electronics project to the next level? Contact the team at MEC Electronics today to learn more about how we can assist you. We look forward to collaborating with you and turning your visions into reality.





© MEC Electronics 2025

**MEC Electronics**

**Entwicklung und Produktion GmbH**

Dresdner Straße 45 / DG, 1200 Wien, Österreich

**Phone:** +43 1 33 418 55-0

**Fax:** +43 1 33 418 55-80

**E-Mail:** [Inquiry@mec.at](mailto:Inquiry@mec.at)

**Managment:** Andreas Günser

**VAT:** ATU 55635600

**MEC Electronics**

**Production LTD**

Vladislav Varnenchik 281 blvd, 9009 Varna, Bulgarien

**Phone:** +43 1 33 418 55-0

**Fax:** +43 1 33 418 55-80

**Mail:** [Inquiry@mec.at](mailto:Inquiry@mec.at)

**Management:** Lukas Günser

**VAT:** BG 204447303