

# eControl mIO

Multifunctional PLC with a wide range of IOs





# eControl mIO

The eControl mIO convinces as an all-round package with numerous communication interfaces. Equipped with the PLC, a large number of small machines do not require any further IO modules. It provides you with targeted and cost-effective support for your control tasks – for example, for controlling stepper motors.

## Key Features



**7" touch display**



**1× Ethernet interface**



**Up to 24 IOs**



**2× stepper interface**



**Microcontroller ARM Cortex-A9**



**Integrated microSD slot up to 64 GB**



**Programming in Qt 5.11.3**



**Modularity and housing choice**



**1× CAN interface acc. to ISO 11898 (opt.)**

## At a glance

The system is equipped with a wide range of interfaces – including Ethernet, e.g. for connection to a host system. The interface package is rounded off by USB, digital and analog inputs and outputs, interfaces for temperature sensors and stepper motors. In addition, there is the option of WLAN, Bluetooth for wireless data transmission and CAN for universal use. The PLC has a powerful CPU and is programmed with the Qt development framework. A capacitive touch display makes operation user-friendly through high accuracy and multi-touch capability.

## Benefits

- Modular through SMARC architecture
- Application-friendly and standardized
- High potential for cost and cabling savings
- Loaded with interfaces for a wide range of automation applications
- Equipment options WLAN, Bluetooth, CAN
- Aluminium housing or simple mounting option

## Technical Data

CPU	Single core with 1 GHz
RAM	up to 512 MB
Memory	4 GB
Expandable memory	microSD card up to 64 GB
TFT display	7"
Resolution	1024×600
Touch	capacitive
Ethernet	10/100 Mbit/s
USB	2× USB 2.0
CAN (optional)	1× CAN interface acc. to ISO 11898, galv. isolated
Dimensions (l×w×h)	182 mm × 117,5 mm × 8 mm
Storage temperature	0 °C up to +60 °C
Operating temperature	5 °C up to +50 °C
Humidity	5 % up to 95 %, non-condensing
Real-time-clock	integrated (buffered)
Protection class (front)	IP67
Power supply	24 V DC ±20 %
Operating system	Linux

### IOs

Digital inputs	4× DI, max. input current 10 mA
Digital outputs	8× DO, max. output current 500 mA
Analog inputs	4× AI (2× 0–10 V, 2× 0–20 mA), 12 bit
Analog outputs	4× AO (2× 0–10 V, 2× 0–20 mA), 10 bit
Stepper motor	2× interface, galv. isolated
Temperature sensor	2× PT100 input

### Product labeling

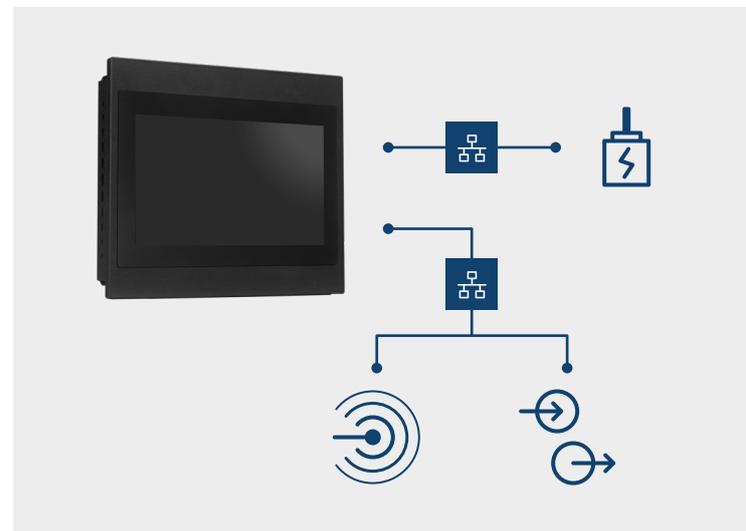
CE label	EN 61000-6-2 Electromagnetic compatibility (EMV) immunity EN 61000-6-4 Electromagnetic compatibility (EMV) emission
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## Development framework Qt and operating system Linux

The controller is programmed with the platform-independent development framework Qt 5.11.3. It is developed in C++ and libraries for a graphical user interface (GUI) are available. The allocation of a control library enables a very fast integration of stepper motors. The operating system used is Linux.

## Application example automation

Control, operate and display – eControl mIO is the versatile controller with various fieldbus interfaces, IOs and motor interfaces for easy realization of automation requirements.



## Pin assignment



### RJ 45 Ethernet

1	LAN_TX+
2	LAN_TX-
3	LAN_RX+
4	–
5	–
6	LAN_RX-
7	–
8	–



### CAN (optional)

1	CAN L (high)
2	CAN H (low)
3	CAN GND
4	–
5	–
6	–
7	CAN GND
8	–



### USB

1	USB 5V
2	USB D-
3	USB D+
4	USB 0v



### Stepper Unit

1	Stepper 1/2 - winding 1+
2	Stepper 1/2 - winding 1-
3	Stepper 1/2 - winding 2+
4	Stepper 1/2 - winding 2-



## Order information

V966370250

eControl mIO



**Mobile Automation**



**Industrial Automation**



**Diagnostics**



**Connectivity**

**We are looking forward to your enquiry!**

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