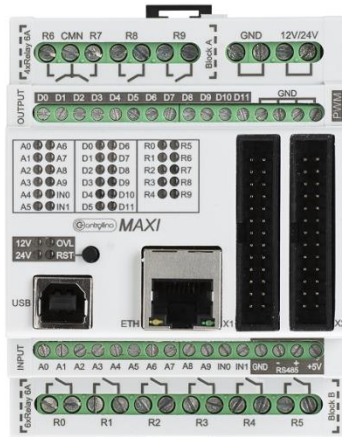# DATASHEET
CONTROLLINO MAXI

Controllino is an Arduino standard and Arduino software compatible PLC.

Ordering information: Controllino Maxi, Art.Nr: 100-100-00

General:

Standard	EN61010-1 EN61010-2-201 EN61131-2
Dimensions (W × H × D)	72x90x62mm
Weight	240g
Mounting	Top hat rail EN50022, 35mm

Environmental conditions, Indoor use only:

Operating ambient temperature	0°C – 55°C
Relative humidity – non-condensing	80 % for temp. up to 31 °C, decreasing linearly to 50 % relative humidity at 55 °C
Pollution Degree	PD2
Altitude	up to 2000m AMSL
Vibration (5 ≤ f ≤ 9 Hz) Vibration (9 ≤ f ≤ 150 Hz)	1,75 mm amplitude sinus 3,5 mm amplitude random 0,5 g acceleration sinus 1,0 g acceleration random
Transport and Storage	-20°C – +70°C 10 to 90% no condensation Altitude 3000m AMSL
Shock response	15g, 11ms half sinus all 3 axes

I/O:

Supply voltage	12V or 24V
USB (Power for programming only)	USB-B, 2.0
Ethernet	RJ45, 10/100Mbps
RS485 (no termination inside)	250kb
Inputs, no galvanic insulation	12
Common analog/digital	10
Fixed digital, ext. Interrupt usable	2
Digital Outputs, no galvanic insulation	12
Relay output	10
PIN Header, no Galvanic insulation	
Logic level Input	12 parallel to terminal Inputs
Logic level Output	12 parallel to terminal Outputs
Communication	SPI, 2xUART, I2C, Reset
Internal Power	+3,3V, +5V, ARef, GND

Terminal capacities:

Relay Output, Power Input	2,5mm² (24-12AWG)
Strip length	6-7mm
Max. tightening torque	0,5Nm
Digital, Analog Input Output	1,5mm² (30-16AWG)
Strip length	5-6mm
Max. tightening torque	0,2Nm
Pin header connector	2x 26 Pin, Dual row, 2.54 pitch

Protection:

ESD HBM Class 0	Contact discharge: ±4kV Air discharge: ±8kV
Supply input over current protection	Internal Fuse 20A (fast)
Relay Output	External Fuse required
Digital Output	Overload, short circuit, ESD
Signal Input	Overvoltage, ESD
Pin header connector	ESD
Current +5V, +3,3V	total 200mA, resettable fuse

Electrical characteristics:

	Condition	Value
Supply voltage (Absolute Maximum)	12V range 24V range	10,2V – 15,0V 20,4V – 30,0V
Signal input low level	12V range 24V range	0V – 3,6V 0V – 7,2V
Signal input high level	12V range 24V range	9V – 13,2V 18V – 26,4V
Analog signal input	12V range 24V range	0 – 13,2V 0 – 26,4V
Signal input current	max. current	< 3mA
Logic "0" level	@ pin header	0V – 1,5V
Logic "1" level	@ pin header	3V – 5,5V
Signal output low level	12V range 24V range	0V – 2,4V 0V – 4,8V
Signal output high level		Vin – 10%
Signal output – PWM functionality	Duty cycle	15% - 85%
Relay output, Contact rating	Resistive Load	6A 250V AC / 30V DC
Common Relay terminal	max. current	6A
Galvanic insulation	coil to contact	3000VAC 1min
Relay ON in case of PWM functionality	Duty cycle	> 30%

LED signalization:

Power LEDs coding input voltage out of range e.g. only USB powered input voltage 10.2V – 15,0V input voltage 20.4V – 30,0V Input voltage < 5V	Color of power LED 12V orange, 24V orange 12V green, 24V orange 12V orange, 24V green both LEDs off
Device in reset state	Reset LED yellow
Device in run state	Reset LED off
Signal input at high (logic 1) level	Corresponding LED green
Signal input at low (logic 0) level	Corresponding LED off
Signal input in use as analog input	Corresponding LED green on when input level reach high (logic 1) state
Signal/Relay output set to active	Corresponding LED green
Signal/Relay output set to inactive	Corresponding LED off

Physical Dimensions:

62,00

90,00

72,00