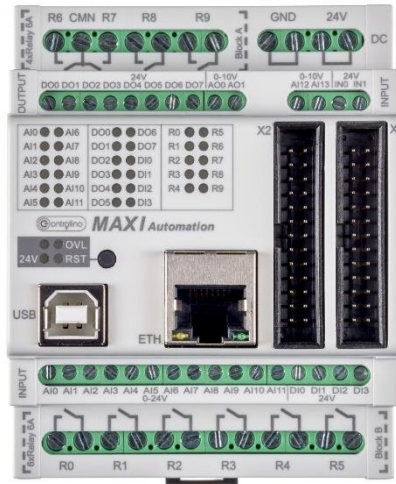


DATASHEET

CONTROLLINO MAXI AUTOMATION



Controllino is an Arduino standard and Arduino software compatible PLC.

Ordering information: Controllino Maxi Automation, Art.Nr: 100-101-00

General:

Standard	EN61010-1 EN61010-2-201 EN61131-2
Dimensions (W x H x D)	72x90x62 mm
Weight	240 g
Mounting	Top hat rail EN50022, 35 mm

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 2000 m AMSL
Vibration (5 ≤ f ≤ 9 Hz)	1,75 mm amplitude sinus 3,5 mm amplitude random
Vibration (9 ≤ f ≤ 150 Hz)	0,5 g acceleration sinus 1,0 g acceleration random
Transport and Storage	-20 °C – +70 °C 10 to 90 % no condensation Altitude 3000 m AMSL

Shock response	15 g, 11 ms half sinus all 3 axes
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I/O:

Supply voltage	24 V
USB (Power for programming only)	USB-B, 2.0
Ethernet	RJ45, 10/100Mbps
Analog inputs	2x 0-10 V
Analog outputs	2x 0-10 V or 0-20 mA
Inputs, no galvanic insulation	18
Common analog/digital	12
Digital	4
Fixed digital, ext. Interrupt usable	2
Digital Outputs, no galvanic insulation	8
Relay outputs	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	+3,3 V, +5 V, ARef, GND

Terminal capacities:

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

Protection:

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

Electrical characteristics:

	Condition	Value
Supply voltage (Absolute Maximum)	24 V range	20,4 V – 30,0 V
Signal input low level	24 V range	0 V – 7,2 V
Signal input high level	24 V range	18 V – 26,4 V
Analog signal input	24 V range	0 V – 26,4 V
Signal input current	max. current	< 3 mA
Logic “0” level	@ pin header	0 V – 1,5 V
Logic “1” level	@ pin header	3 V – 5,5 V
Signal output low level	24 V range	0V – 4,8 V
Signal output high level		V _{in} – 10 %
Signal output – PWM functionality	Duty cycle	15 % - 85 %
Relay output, Contact rating	Resistive Load	6 A 250 V AC / 30 V DC
Common Relay terminal	max. current	6 A
Galvanic insulation	coil to contact	3000 VAC 1 min
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	Color of power LED 24 V orange
input voltage 20.4 V – 30,0 V Input voltage < 5 V	24 V green LED 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:

