

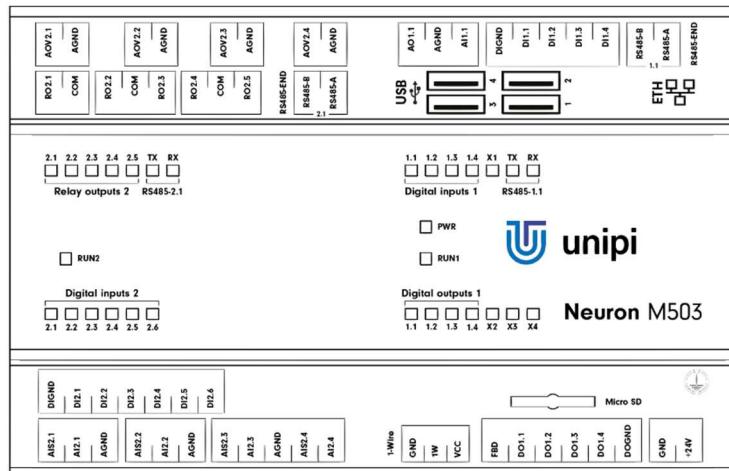
UniPi Neuron M503

Series	Digital inputs	Digital outputs	Relay outputs	Analog inputs	Analog outputs	Communication
M50x	10	4	5	5	5	2× RS485 1× Ethernet 10/100 1× 1Wire bus

Model	CPU	RAM	Others
M503	4× 1.2 GHz	1 GB	Wifi + Bluetooth

Basic properties

- Power supply 24 V DC
- RTC with backup up to 7 days
- Linux operating system
- 1× 10/100 Ethernet
- 4× USB for connecting other devices Wifi, 3G(LTE),...
- 2× RS485 galvanically isolated serial interface for connection of expansion and communication modules
- Direct Switch function
 - Rapid input response within the group – tens of μ s
 - Available features: identity, negation, toggle
- Watchdog for monitoring running of the control system
- Save and restore settings and fail-safe state of outputs to NVRAM and reload at startup
- Hardware restart function of 1Wire bus
- Possibility to choose multiple programming platforms
 - Mervis
 - REX
 - CODESYS
 - OpenSource
 - TCP ModBus and other interfaces are available for your OWN applications
- 4× user-configurable LEDs
- ready for wireless technologies - Zigbee, Lora, Sigfox, IQRF, GSM, LTE, ...
- Built-in Web server for display of user applications
- Compact size and easy installation on DIN rail



 Communication		 Analog inputs	
Ethernet	1× 10/100BaseT	Nr. of inputs × groups	4 × 1
Serial channels	2× RS485, 1× 1-Wire	Common connector	AGND
Transmission speed RS485	9.6 .. 115 kbps	Available functions	0 – 10 V 0 – 20 mA
Galvanic isolation RS485	Yes	Galvanic isolation	Yes
Galvanic isolation 1-Wire	Yes	Resolution	24 bits – R 16 bits – U, I
 Digital inputs		Conversion speed	400 ms – R 60µs – U, I
Number of inputs × groups	4 × 1, 6 × 1		10µs
Common connector	DIGND		
Galvanic isolation	Yes		
Functions of inputs	Signalization, counter, Direct Switch		
Operation range	5 – 40 V DC	 Analog outputs	
Input voltage of log. 0	Max. 3,5 V DC	Nr. of out. × groups	4 × 1
Input voltage of log. 1	Min. 5 V DC	Common connector	AGND
Input resistance of log. 1	6 200Ω	Available functions	0 – 10 V AI:0 – 2 kΩ, Ni1000, Pt1000
Delay 0->1/1->0	20 µs / 60 µs	Galvanic isolation	Yes
		Resolution	12 bits
		Conversion speed	300 µs
			1 ms
 Digital outputs		 Power supply	
Number of outputs × groups	4 × 1	Rated voltage - SELV	24 V DC
Common connector	DOGND	Voltage tolerance	-15% .. +25% 20,4 .. 30 V DC
Galvanic isolation	No	Power consumption	Typ. 8 W Max. 17 W
Type of output	Transistor	Internal protection	Yes
Additional functions	PWM	 Installation and operating conditions	
Switchable voltage	5 – 50 V DC	Operating temperature	0 °C .. + 55 °C
Switchable current	750 mA / 1 A	Storing temperature	-25 °C .. +70 °C
continual/pulse		Dielectrical strength	According to EN 60950
Max. total current DO1.1–1.4	1A	Degree of protection IP	IP20
Time to switch on/off	Typ. 130 ns / 20ns	Operation position	Horizontal
Switching speed	Max. 200 kHz/8bit	Installation	On 35mm DIN rail into distribution box
 Relay outputs		Connection	Pluggable terminal blocks
Number of outputs × groups	2 × 2, 1 × 1	Wire gauge	Max. 2,5 mm²
Galvanic isolation	Yes	 Standards compliance	
Type of contact	Closing contact	ČSN EN 6095-1 ed. 2	
Switchable voltage	250 V AC/30 V DC	ČSN EN 61000-6-3 ed. 2	
Switchable current	5A	ČSN EN 55014-1 ed. 3	
Short time overvoltage	5A	ČSN EN 55022 ed. 3	
Current via common conn.	10A	2006/95/EC	
Time to switch on/off	10ms	2004/108/ES	
Mechanical lifetime	5 000 000	2014/35/EU	
Electrical lifetime	100 000	2014/30/EC	
Protection against shortage	No		
Inductive load protection	External		
Isolation voltage	4 000 V AC		
 Dimensions and weight			
Dimensions	140 × 90 × 59 mm		
Weight	500 g		

