

UniPi Neuron L50x



Series	Digital inputs	Digital outputs	Relay outputs	Analog inputs	Analog outputs	Communication
L50x	24	4	19	5	5	2x RS485 1x Ethernet 10/100 1x 1Wire bus

Model	CPU	RAM	Others
L503	4x 1.2 GHz	1 GB	Wifi + Bluetooth

Basic properties

- Power supply 24 V DC
- RTC with backup up to 7 days
- Linux operating system
- 1x 10/100 Ethernet
- 4x USB for connecting other devices Wifi, 3G(LTE),...
- 2x 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 multile programing platforms
 - Mervis
 - REX
 - CODESYS
 - OpenSource
 - TCP ModBus and other interfaces are available for your OWN applications
- 4x 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			
Ethernet			1× 10/100BaseT
Serial channels			2× RS485, 1× 1-Wire
Transmission speed RS485			9.6 .. 115 kbps
Galvanic isolation RS485			Yes
Galvanic isolation 1-Wire			Yes
Digital inputs			
Number of inputs × groups			3 × 2, 4 × 3, 6 × 1
Common connector			DIGND
Galvanic isolation			Yes
Functions of inputs			Signalization, counter, Direct Switch
Operation range			5 – 24 V DC
Input voltage of log. 0			Max. 3,5 V DC
Input voltage of log. 1			Min. 5 V DC
Input resistance of log. 1			6 200Ω
Delay 0→1/1→0			20 µs / 60 µs
Digital outputs			
Number of outputs × groups			4 × 1
Common connector			DOGND
Galvanic isolation			No
Type of output			Transistor
Additional functions			PWM
Switchable voltage			5 – 50 V DC
Switchable current continual/pulse			750 mA / 1 A
Max. total current DO1.1–1.4			1A
Time to switch on/off			Typ. 130 ns / 20ns
Switching speed			Max. 200 kHz/8bit
Relay outputs			
Number of outputs × groups			1 × 3, 2 × 8
Galvanic isolation			Yes
Type of contact			Closing contact
Switchable voltage			250 V AC/30 V DC
Switchable current			5A
Short time overvoltage			5A
Current via common conn.			10A
Time to switch on/off			10ms
Mechanical lifetime			5 000 000
Electrical lifetime			100 000
Protection against shortage			No
Inductive load protection			External
Isolation voltage			4 000 V AC
Dimensions and weight			
Dimensions			210 × 90 × 59 mm
Weight			900 g
Analog inputs			
Nr. of inputs × groups			4 × 1
Common connector			AGND
Available functions			0 – 10 V 0 – 20 mA
Galvanic isolation			Yes
Resolution			24 bits – R 16 bits – U, I
Conversion speed			400 ms – R 60µs – U, I
Analog outputs			
Nr. of out. × groups			4 × 1
Common connector			AGND
Available functions			0 – 10 V AO:0 – 10V / 0 – 20mA AI:0 – 2 kΩ, Ni1000, Pt1000
Galvanic isolation			Yes
Resolution			12 bits
Conversion speed			300 µs
Power supply			
Rated voltage - SELV			24 V DC
Voltage tolerance			-15% .. +25% 20,4 .. 30 V DC
Power consumption			Typ. 10 W Max. 19 W
Internal protection			Yes
Installation and operating conditions			
Operating temperature			0 °C .. +55 °C
Storing temperature			-25 °C .. +70 °C
Dielectrical strength			According to EN 60950
Degree of protection IP			IP20
Operation position			Horizontal
Installation			On 35mm DIN rail into distribution box
Connection			Pluggable terminal blocks
Wire gauge			Max. 2,5 mm²
Standards compliance			
ČSN EN 6095-1 ed. 2			
ČSN EN 61000-6-3 ed. 2			
ČSN EN 55014-1 ed. 3			
ČSN EN 55022 ed. 3			
2006/95/EC			
2004/108/ES			
2014/35/EU			
2014/30/EC			