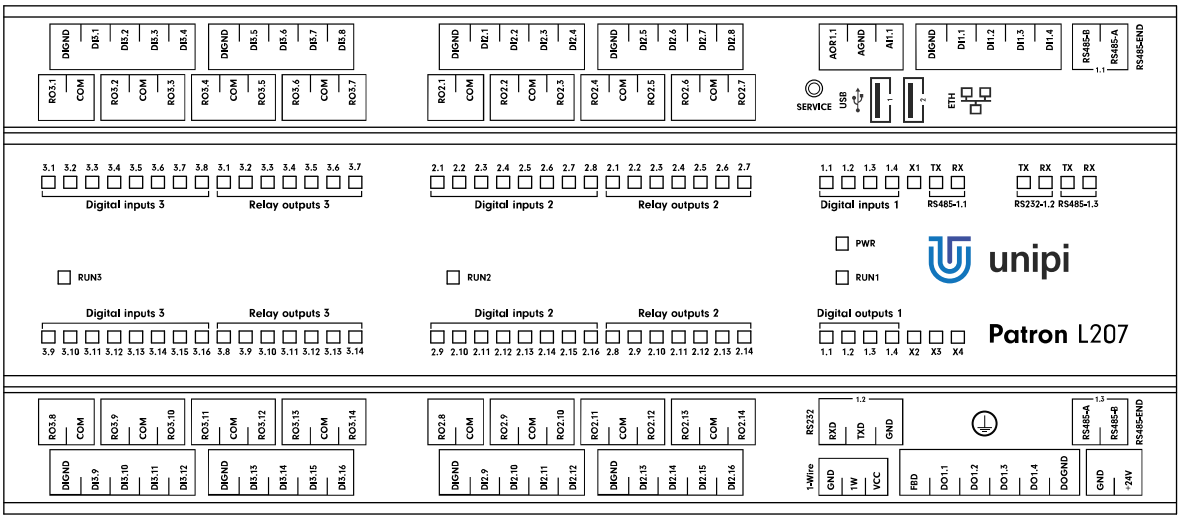
unipi technology

Product datasheet
Product code: 2020027-1

Unipi Patron L207

PRODUCT DESCRIPTION

Unipi Patron L207 is a programmable logic controller designed for automation, control, regulation and monitoring. The L207 features a high number of digital and relay I/Os complemented by a single analog I/O and three serial interfaces (RS485 + RS232). With a total number of 70 I/Os, the L207 offers the highest number of inputs/outputs of all Patron controllers, making it suitable for a wide range of applications in extensive automation projects. The controller is also provided with a 1-Wire interface for connection of digital temperature or humidity sensors.



COMPUTING MODULE

i.MX 8M Mini quad-core CPU
(Arm© Cortex©-A53, max 1.8 GHz),
1 GB LPDDR4 RAM, 8GB eMMC onboard memory

FUNCTIONALITY

Automation, IoT and IIoT, remote online monitoring and regulation, HVAC control (heating, ventilation, air conditioning), SCADA, sensorics, smart home control (lighting, doors, locks, irrigation etc.)

FEATURES

Inputs/outputs

36 × digital input incl. counter
4 × digital output
28 × relay output
1 × analog input
1 × analog output

Communication interfaces

2 × RS485
1 × RS232
1 × 1-Wire bus
1 × 100 Mbit Ethernet
2 × USB 2.0

Software

- Powered by OS Linux
- Mervis – IDE (IEC 61131-3), HMI editor, proxy server, cloud database, SCADA, a wide range of supported protocols
- Open-source solutions – Node-RED, openHAB, Homebridge, FHEM, PiDome, DomotiGa, Domoticz, Pimatic and many more
- Custom SW implementation– EVOK open API, Modbus TCP interface, SysFS

Other features

- The most powerful compact controller on the market
- Developed and manufactured in the EU
- Durable aluminium chassis (IP20)
- Extended warranty (4 years)
- Special functionality – Direct Switch, MasterWatchdog, user LEDs
- Available in OEM variant, broad extension options – PoE/PoE+, microSD, wireless technologies (LTE, Wi-Fi, Zigbee, ...), Secure boot and more

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Communication

Ethernet	1 × 100 Mbit Ethernet
Serial/bus channels	2 × RS485, 1 × RS232, 1 × 1-Wire
RS485 1.1 transmission speed	134 baud .. 115 200 baud
RS485 1.3 transmission speed	50 baud .. 3 Mbaud
RS485 galvanic isolation	Yes
RS485 biasing resistors	Yes, 560 Ω
RS485 terminating resistor	Builtin attachable, 120 Ω
RS232 transmission speed	50 baud .. 3 Mbaud
RS232 galvanic isolation	No
1-Wire galvanic isolation	Yes
1-Wire output voltage Vcc	5 V
1-Wire max. current Vcc	50 mA
1-Wire connector	3 × pole, max. 1.5 mm^2
USB	2 × USB 2.0

Digital inputs

Nr.of inputs × groups	4 × 9
Common connector	DIGND
Galvanic isolation	Yes
Functions of inputs	Counter (incl. memory), signalization, Direct Switch
Max. frequency of counter input signal	10 kHz
Input voltage of log. 0	Max. 3 V DC
Input voltage of log. 1	Min. 7 V DC
Max. input voltage	35 V DC
Input resistance	6 200 Ω
Delay 0–>1/1–>0	20 µs / 60 µs

Digital outputs

Nr.of outputs × groups	4 × 1
Common connector	DOGND
Galvanic isolation	No
Type of output	NPN transistor (open collector)
Optional functions	PWM
Switchable voltage	5–50 V DC
Switchable current continual/pulse	750 mA / 1 A
Max. total current DO 1.1–1.4	1 A
PWM max. frequency	200 kHz
PWM max. resolution	16 bits

Relay outputs

Nr.of outputs × groups	1 × 4, 2 × 12
Galvanic isolation	Yes
Type of contact	Normally open (SPST)
Switchable voltage	250 V AC / 30 V DC
Switchable current	5 A
Short time overvoltage	5 A
Current via common conn.	10 A
Time to switch on/off	10 ms
Mechanical lifetime	5 000 000 cycles
Electrical lifetime	100 000 cycles
Protection against shortage	No
Inductive load protection	Not included
Isolation voltage	4 000 V AC

Analog inputs

Nr.of inputs × groups	1 × 1
Common connector	AGND
Available functions	0–10 V 0–20 mA
Galvanic isolation	No
Resolution	12 bits
Conversion speed	10 µs
Input resistance	66 kΩ – U 100 Ω – I
Resistance measurement method	–

Analog outputs

Nr.of outputs × groups	1 × 1
Common connector	AGND
Available functions	AO 0–10 V / 0–20mA Resistance measurement: 0–2 kΩ (Pt/Ni1000)
Galvanic isolation	No
Max. voltage/current	10 V / 20 mA
Resolution	12 bits
Conversion speed	1 ms
Resistance measurement method	2wire

Power supply

Rated voltage - SELV	24 V DC
Power consumption	Typ. 8 W Max. 17 W
Reverse polarity protection	Yes

Installation and operating conditions

Operating conditions	0 °C .. + 55 °C, relative humidity 10 % .. 95 %, without aggressive substances, condensing vapour and fog
Storing conditions	- 25 °C .. + 70 °C, relative humidity 10 % .. 95 %, without aggressive substances, condensing vapour and fog
Degree of protection IP (IEC 529)	IP 20
Operation position	Horizontal
Installation	On 35mm DIN rail into distribution box (holder included)
Connection	Pluggable terminal blocks
Wire gauge	Max. 2.5 mm^2

Dimensions and weight

Dimensions	210 × 90 × 60 mm
Weight	585 g

Directive compliance

LVD: 2014/35/EU
EMC: 2014/30/EU
RoHS: 2015/863/EU
WEEE: 2012/19/EU