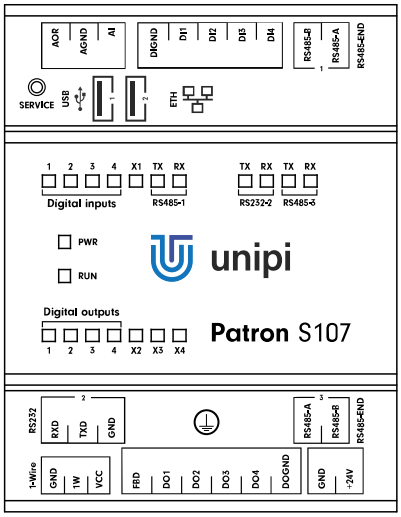
Unipi Patron S107

PRODUCT DESCRIPTION

Unipi Patron S107 is a programmable logic controller (PLC) and gateway designed for automation, control, regulation and monitoring. The S107 is a compact model with a universal architecture combining digital and analog I/Os suitable for simple installations. The controller also features three serial interfaces (RS485 + RS232) for connection of extension modules and/or gateways and a 1-Wire interface for connection of temperature or humidity sensors.



mervis software included

NXP i.MX 8M

COMPUTING MODULE

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

4 × digital input incl. counter
4 × digital 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 (3 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, 2.1 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 mm²
USB	2 × USB 2.0

Digital inputs

No. of inputs × groups	4 × 1
Functions of inputs	Counter (incl. memory), Direct Switch
Input type	SINK
Input terminal	DI
Common ground	DIGND
Maximum voltage for log. 0	3 V⎓
Minimum voltage for log. 1	7 V⎓
Maximum voltage	35 V⎓
Non-defined state	3-7 V⎓
Input resistence for log. 1	6 200 Ω
Voltage drop on DI diode	1.2 V
Minimum pulse length	20 µs
0->1 / 1->0 delay	Typ. 20 µs / 60 µs
Maximum CNT counter input frequency	10 kHz
Galvanic isolation	Yes (between the groups)
Insulation voltage	2 000 V

Digital outputs

No. of inputs × groups	4 × 1
Functions of inputs	PWM
Output type	SINK (NPN – open collector)
Output terminals	DO
Common ground	DOGND
Switching voltage	5–50 V⎓
Switching current continuous/pulse	750 mA / 1 A
Max. total group load	1 A
Inductive load handling	Integrated FBD diode (optional)
Switching period (open/close)	Typ. 130 ns / 20 ns
Maximum PWM resolution	16 bits
Maximum PWM frequency	200 kHz
Galvanic isolation	No

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 mm²

Power supply

Rated voltage - SELV	24 V⎓
Power consumption	Typ. 3 W Max. 12 W
Reverse polarity protection	Yes

Dimensions and weight

Dimensions	70 × 90 × 60 mm
Weight	198 g

Analog inputs

No. of inputs × groups	1 × 1
Input terminals	AI
Common ground	AGND
Input modes	0–10 V⎓ voltage meas. 0–20 mA current meas.
Maximum input voltage	12 V⎓
Input resistance (voltage meas.)	66 kΩ
Input resistance (current meas.)	100 Ω
Accuracy	±0.5 %
Resolution	12 bits
Conversion time	10 µs
Protection type	Integrated overvoltage
Galvanic isolation	No

Analog outputs

No. of inputs × groups	1 × 1
Output terminals	AOR
Common conductor	AGND
Output functions	0–10 V⎓ voltage source 0–20 mA current source 0–1960 Ω resistance meas.
Output voltage range	0–10 V⎓
Output current range	0–20 mA
Maximum output current	20 mA
Output accuracy	±0.5 %
Resolution	12 bits
Conversion	1 ms
Protection type	Integrated overvoltage
Galvanic isolation	No

Directive compliance

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