

UniPi Axon S105



Model	DI	DO	RO	AI	AO	Communication	CPU	RAM	eMMC	Other features
S105	4	4	-	1	1	2× RS485 1× RS232 1× 1-Wire bus 1× 1Gbit Ethernet	4× 1.2 GHz	1 GB	8 GB	WiFi Bluetooth

Basic features

- OS Linux
- Power supply 24 V DC
- Real-time clock (RTC) with backup up to 7 days
- 1Gb Ethernet
- USB for connecting other devices
- RS485 & RS232 serial interfaces for connection of extension or communication modules
- Direct Switch function
 - Rapid input response within the group – tens of μ s
 - Available features: identity, negation, toggle
- Watchdog function for monitoring of the control system
- Save and restore settings and fail-safe state of outputs to NVRAM and reload at startup
- 1-Wire bus hardware restart function
- Wide array of software platforms
 - PLC platforms for easy control implementation
 - Mervis
 - REX
 - Opensource platforms for easy implementation of customer solutions
 - SysFS
 - Modbus TCP
 - Modern HTTP interface (WebSocket, REST, ...)
- User-configurable LEDs
- Ready for wireless technology implementation – Lora, Zigbee, IQRF, Sigfox, EnOcean, GSM, LTE...
- In-built webserver for user application display
- Compact dimensions, easy installation to a DIN rail



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Communication

Ethernet	1× 1Gbit Ethernet
Serial channels	2× RS485, 1x RS232 1× 1-Wire
Comm. speed RS485 1	134 baud .. 115 kbaud
Comm. speed RS485 3	50 baud .. 3 Mbaud
Galvanic isolation RS485	Yes
Comm. speed RS232	50 baud .. 3 Mbaud
Galvanic isolation RS232	No
Galvanic isolation 1-Wire	Yes

Digital inputs

Number of inputs × groups	4 × 1
Common connector	DIGND
Galvanic isolation	Yes
Functions of inputs	Signalization, counter, Direct Switch
Operation range	5 – 40 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 – DO1.4	1A
Time to switch on/off	Typ. 130 ns / 20ns
Switching speed	Max. 200 kHz/8bit

Dimensions and weight

Dimensions	72 × 90 × 59 mm
Weight	172 g

Analog inputs

Number of inputs × groups	1 × 1
Common connector	AGND
Available functions	0 – 10 V 0 – 20 mA
Galvanic isolation	No
Resolution	12 bits
Conversion speed	10μs

Analog outputs

Number of outputs × groups	1 × 1
Common connector	AGND
Available functions	AO 0 – 10V / 0 – 20mA Resistance measure: 0 – 2 kΩ, Ni1000, Pt1000
Galvanic isolation	No
Resolution	12 bits
Range/current	10V/20mA
Conversion speed	1ms

Power supply

Rated voltage - SELV	24 V DC
Voltage tolerance	-15% .. +25% 20,4 .. 30 V DC
Power consumption	Typ. 3W Max. 12W
Internal protection	Yes

Installation and operating conditions

Operating temperature	0 °C .. + 55 °C
Storing temperature	-25 °C .. +70 °C
Dielectrical strength	In accordance with EN 60950
Degree of protection IP (IEC 529)	IP20
Operation position	Horizontal
Installation	On 35mm DIN rail into distribution box
Connection	Pluggable terminal blocks
Wire gauge	Max. 2,5 mm ²

Standards compliance

ČSN EN 6060730-1
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