

# Unipi Extension xS51

## PRODUCT DESCRIPTION

Unipi Extension xS51 is an extension module communicating via the RS485 serial interface (Modbus RTU). The module is a simple and inexpensive method of extending your project by additional inputs & outputs. The xS51 features a set of analog I/Os combined with a set of digital and relay I/Os.

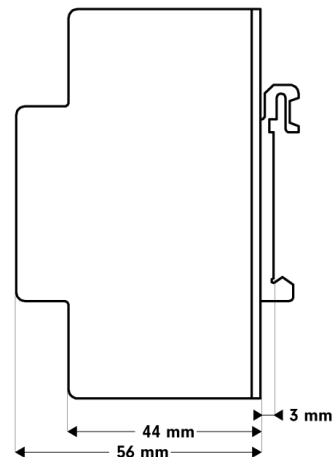
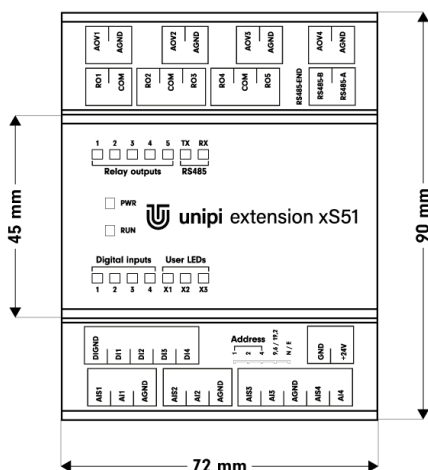


## INPUTS & OUTPUTS

- 1 × RS485 Modbus RTU with galv. isolation
- 4 × digital input (incl. pulse counter)
- 5 × relay output
- 4 × analog input
- 4 × analog output

## OTHER FEATURES

- Special functions
  - Direct Switch – automatic response to input value change
  - MasterWatchdog – switches outputs to a safe mode if communication with the PLC is interrupted
  - Configurable user LEDs.
- Durable aluminium chassis (IP20)
- Available in OEM variant.



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## • Communication

Serial/bus channels	1 × RS485
RS485 transmission speed	134 baud .. 115 200 baud
RS485 galvanic isolation	Yes
RS485 pull-up/pull-down resistors	No
RS485 terminating resistor	Attachable, 120 Ω

## • Digital inputs

Nr.of inputs × groups	4 × 1
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

## • Relay outputs

Nr.of outputs × groups	1 × 1, 2 × 2
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
Isolation voltage	4 000 V AC

## • Analog inputs

Nr.of inputs × groups	4 × 1
Common connector	AGND
Available functions	0-10 V / 0-2,5 V 0-20 mA 0-1960 Ω 0-100 kΩ
Galvanic isolation	Yes
Resolution	16 bits - U, I 24 bits - R
Conversion speed	60 μs - U, I 400 ms - R
Input resistance	44 kΩ - U 100 Ω - I
Resistance measurement method	2/3wire

## • Analog outputs

Nr.of outputs × groups	4 × 1
Common connector	AGND
Available functions	0-10 V
Galvanic isolation	Yes
Max. voltage/current	10 V / 25 mA
Resolution	12 bits
Conversion speed	300 μs
Resistance measurement method	—

## • Power supply

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

## • Installation and operating conditions

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 <sup>2</sup>

## • Dimensions and weight

Dimensions	72 × 90 × 56 mm
Weight	320 g

## • Standards compliance

EN ISO 16484-2
EN 60730-1
EN 60335-1