

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.

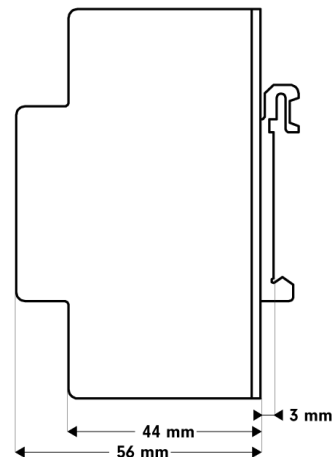
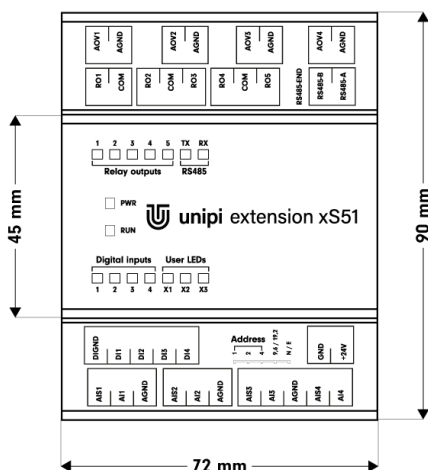


INPUTS & OUTPUTS

- 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.



Unipi Extension xS51

• 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 ² |

• Dimensions and weight

| | |
|------------|-----------------|
| Dimensions | 72 × 90 × 56 mm |
| Weight | 320 g |

• Standards compliance

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