

Unipi Extension xS11

PRODUCT DESCRIPTION

Unipi Extension xS11 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 xS11 combines a higher number of digital inputs and relay outputs, making it suitable for a wide range of applications.

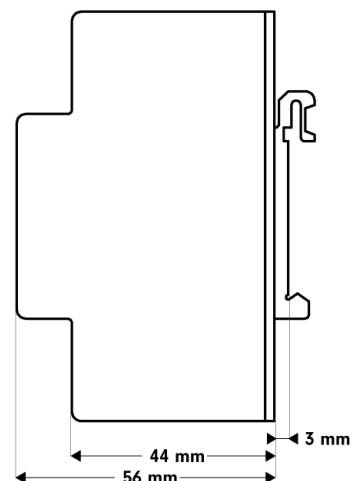
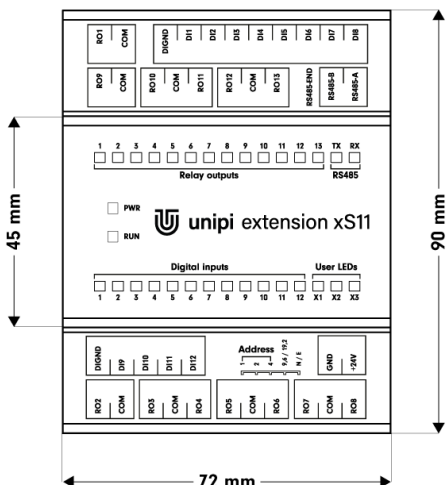


INPUTS & OUTPUTS

- 1 × RS485 Modbus RTU with galv. isolation
- 12 × digital input (incl. pulse counter)
- 13 × relay 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 xS11

Communication

| | |
|----------------------------|----------------------------|
| Serial/bus channels | 1 × RS485 |
| RS485 transmission speed | 134 baud ... 115 200 baud |
| RS485 galvanic isolation | Yes |
| RS485 biasing resistors | No |
| RS485 terminating resistor | Built-in attachable, 120 Ω |

Digital inputs

| | |
|-------------------------------------|---------------------------------------|
| No. of inputs × groups | 4 × 1, 8 × 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 _{DC} |
| Minimum voltage for log. 1 | 7 V _{DC} |
| Maximum voltage | 35 V _{DC} |
| Non-defined state | 3-7 V _{DC} |
| Input resistance 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 |

Relay outputs

| | |
|---------------------------------|---|
| No. of inputs × groups | 1 × 3, 2 × 5 |
| Output type | Electromechanic non-shielded relay |
| Output terminal | RO |
| Common terminal | COM |
| Contact type | Normally open (SPST-NO) |
| Used relay type | FTR-F3AA024EHA |
| Maximum switching voltage | 250 V _{AC} 30 V _{DC} |
| Maximum switching current | 5 A |
| Maximum common terminal current | 10 A |
| Short-term current overload | 5 A |
| Mechanical lifespan | 5 000 000 |
| Electrical lifespan | Up to 100 000 (according to the connected load) |
| Operate/release time | 10 ms |
| Designed for load character | Resistive |
| Load handling | External (RC, varistor, diode, thermistor) |
| Short circuit protection | No |
| Overvoltage protection | No |
| Galvanic isolation | Yes |
| Insulation voltage | 4 000 V |

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 |

Power supply

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|-----------------------------|-----------------------|
| Rated voltage - SELV | 24 V _{DC} |
| Power consumption | Typ. 2 W Max. 11 W |
| Reverse polarity protection | Yes |

Dimensions and weight

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

Directive compliance

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

