Models: Unipi Extension xG18

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CAUTION

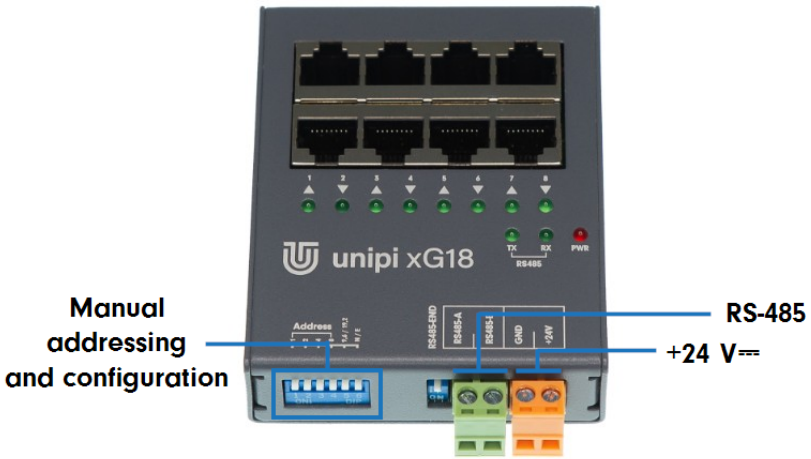
The unit can be powered only by a power source in compliance with the unit's specifications. Using unsuitable power supply can result in damage to the unit or connected devices. Unplug all power supplies and voltage sources before any manipulation with the unit – danger of electrical injury or component damage!

Do not use the controller in potentially explosive atmospheres! The controller can be installed only by trained personnel with sufficient qualification. The unit can be installed only in a suitable environment following the product's technical specifications (interior with suitable temperature and humidity, switchboards protected against water intrusion, etc.).

All connected peripherals should comply with all standards and regulations relevant to the country and the intended use.

Working conditions

Power supply (SELV)	5–24 V⎓	**Ingress protection (IEC 529)**	IP20
Input current	Max. 0.2 W (see the unit's datasheet)	**Working and storage temperature**	Working: -25 °C ... +75 °C Storage: -25 °C ... +75 °C
Power supply pole reversal protection	Yes	**Installation**	On a 35 mm DIN rail in a distribution box (holder included)



WEEE Directive Statement for the European Union
Unipi Extension cannot be disposed of as household waste. Different rules for handling electric waste may apply in other jurisdictions.

Compliance information
Unipi Extension complies with the requirements of EMC, LVD and RoHS directives relevant for European Union states. The full text of the EU declaration of conformity is available at the following internet address: https://kb.unipi.technology/doc/

First steps

The extension module and the control communicate via the RS-485 serial line using Modbus RTU protocol. For all devices to communicate you need to configure matching communication parameters for each of them. However, each module must have its own unique Modbus address withing the bus.

Modules can be configured using color (**HW configuration**) switches placed next to the power connectors. Another option is configuration via Modbus registers (**SW configuration**). Configuration via DIP switches offers enough options for most applications, while configuration via Modbus registers provides broader possibilities (wider range of addresses and bitrates).

NOTE

HW configuration is recommended for the module's first use and the subsequent SW configuration upload.

SW configuration via Modbus RTU

In the Mervis IDE, the modules are easily configurable (tutorial at https://kb.unipi.technology).

Default communication parameters (SW configuration*):

- **Number of data bits:** 8 bits (fixed)
- **Modbus Address:** 15
- **Bitrate:** 19 200 baud
- **Parity:** None

*SW configuration of the module is used only when all address switches are set to 0 (OFF). Switch states are used only during the module's startup (connecting the power supply, SW reset, Master Watchdog).

DIP switches

This modules have 6 switches located at the module's bottom. The no. 1 switch is closest to the left side.

- **n. 1** → Address bit 1 (OFF - ignored, ON - value +1)
- **n. 2** → Address bit 2 (OFF - ignored, ON - value +2)
- **n. 3** → Address bit 3 (OFF - ignored, ON - value +4)
- **n. 4** → Address bit 4 (OFF - ignored, ON - value +8)
- **n. 5** → Bitrate selection (OFF - 19 200, ON - 9 600)
- **n. 6** → Parity selection (OFF - even, ON - none)