

M-CON-485-s: RS-485 integration module

Document number: PO-034-EN Version: 1.4.0 Date of publication: March 6, 2025



Technical data

Supply voltage

11 – 16V DC

Idle current consumption

15mA

Maximum current consumption

20mA

Communication interface

RS-485

Dimensions

Width

35mm, 2 spaces/modules in DB

Height (incl. plugs)

110mm

Depth

59mm

Environment

Temperature

-40 – 50°C

Humidity

≤95%RH, non-condensing

The image above is for illustration purpose only. The actual module may vary from the one presented here.

General features

Module M-CON-485-s is a component of the Ampio system. Required voltage to power the module is 11 – 16V DC. The module is controlled via CAN bus.

The module allows for the integration of devices equipped with an RS-485 communication interface with the Ampio home automation system.

Typical application

- Integration with alarm systems;
- integration with projectors and other display devices;
- integration with audio devices;
- integration with air conditioners and recuperators;
- integration with weather stations.

Installation

The module is designed for mounting on a 35mm DIN rail. The module's width is 35mm, 2 spaces/modules in DB. In order to start the module, it must be connected to the CAN bus. The bus of the Ampio system consists of four wires - two for power and two for communication between the modules.

In addition to the CAN bus connector, the device has a connector that provides access to the A, B and SC lines of the RS-485 interface. The device connection diagram shows two variants of connection with a device being integrated. To determine whether an SC reference line connection is necessary, refer to the manual of the device being integrated.

Device status LEDs

On the front of the module there are signalling LED indicators. The green LED with the label CAN indicates the status of communication on the CAN bus:

- one regular flash every 1 sec. – CAN bus communication is working properly,

- two regular flashes every 1 sec. – the module is not receiving information from other modules,
- three regular flashes every 1 sec. – the module cannot send information to the CAN bus;

Apart from the communication bus status LED, there are three red LEDs on the front of the device:

- *ERROR* - indicates a communication error;
- *TX* - indicates that the device is sending data through the RS-485 interface;
- *RX* - indicates that the device is receiving data through the RS-485 interface.

Programming

The module is programmed with the use of the [Ampio Designer](#) software. It allows you to modify the parameters of the module and define its behaviour in response to signals directly available to the module as well as general information coming from all devices present in the home automation bus.

Unlike most Ampio system modules, the software of the M-CON-485-s module is of a specialised in nature, i.e. depending on the intended use case, the correct firmware must be uploaded to the device.

The specialised software is identified by the software version number, the only difference being that the last two digits of the software version define the purpose of the software.

The software file name of the M-CON-485-s module takes the following form:

[VER][TYP]

where:

- [VER] is the firmware version,
- [TYPE] is the two-character firmware specialisation code.

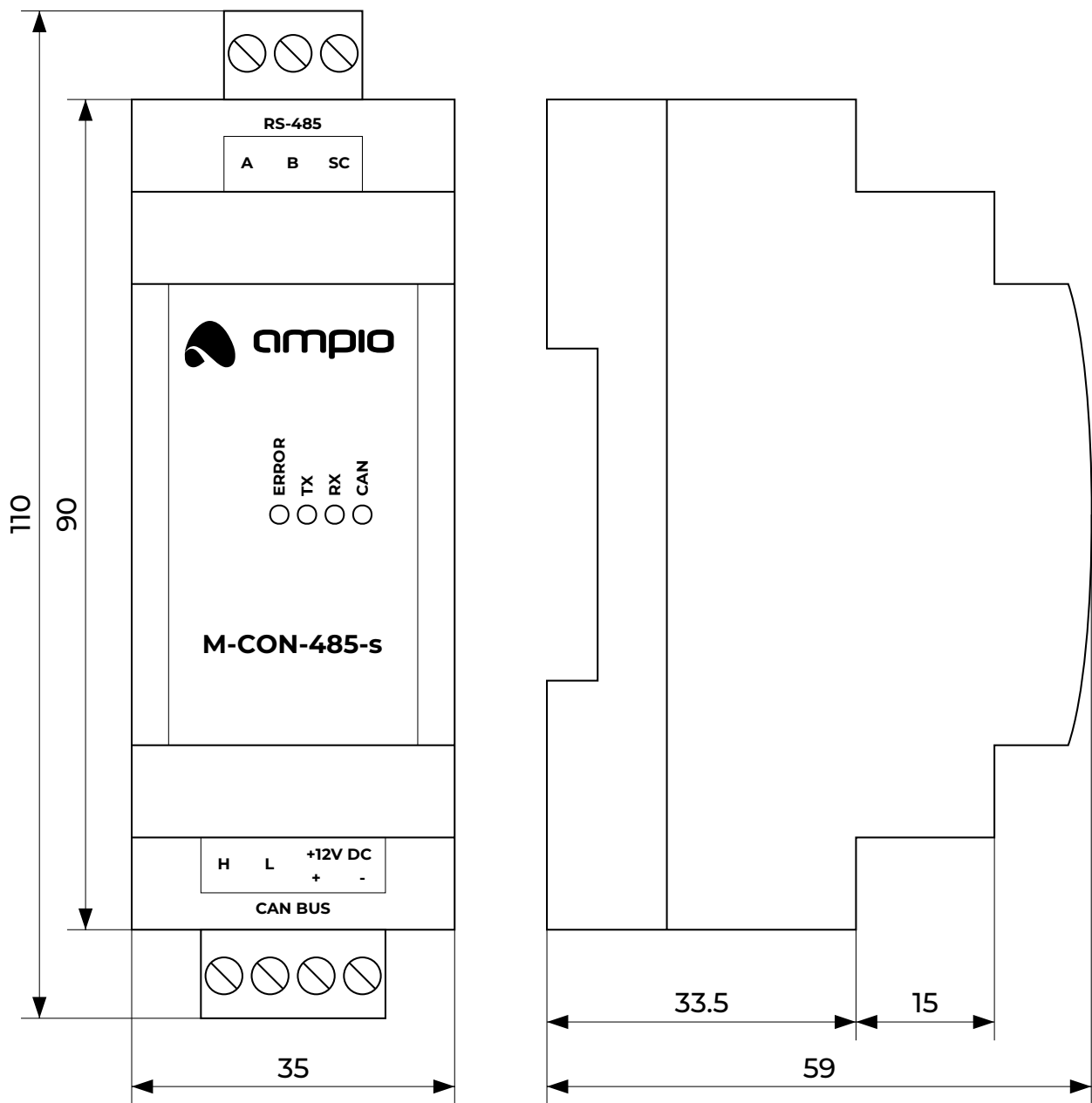
The table below shows the available variants of firmware specialisation for the M-CON-485-s module:

Specialisation code	Name	Description
07	UNI-MODBUS	Universal two-way Modbus integrator.
08	JABLOTRON	Integration with Jablotron alarm system.

Specialised software files are available in the Ampio Designer software.

Module dimensions

Dimensions expressed in millimeters.



Connection diagram

