

Product datasheet

Characteristics

NORVI

Agent 2

BM01 Series

4 Digital Inputs
4 Analog inputs 0 - 10V
1 RS-485 Communication

BM02 Series

4 Digital Inputs
4 Analog inputs 4 - 20mA
1 RS-485 Communication

BE01 Series

4 Digital Inputs
1 5A Relay Output

BE02 Series

4 Digital Inputs
1 RS-485 Communication

Optional

0.96 OLED Display
WS2812 Pixel LED



Main

Range of product	NORVI Agent 2
Product type	Programmable node
Rated supply voltage	Standard 6 - 36V DC / Low Power : 3.3 - 6V DC
Field of Application	Monitoring and controlling
Discrete Input number	3
Discrete Input Voltage	18 - 24 V DC
Analog input number	3
Analog input range	0 - 10V DC / 0 - 20 mA (depending on model)
Communication	RS-485 (applicable or BE-Series only)
Analog input range	0 - 10V DC / 0 - 20 mA (depending on model)
Analog input controller	16 bit with PGA ADS-1115
Discrete output type	Transistor (applicable or BE-Series only)
Discrete output number	2 Transistor outputs
Discrete output voltage	24V DC for transistor output

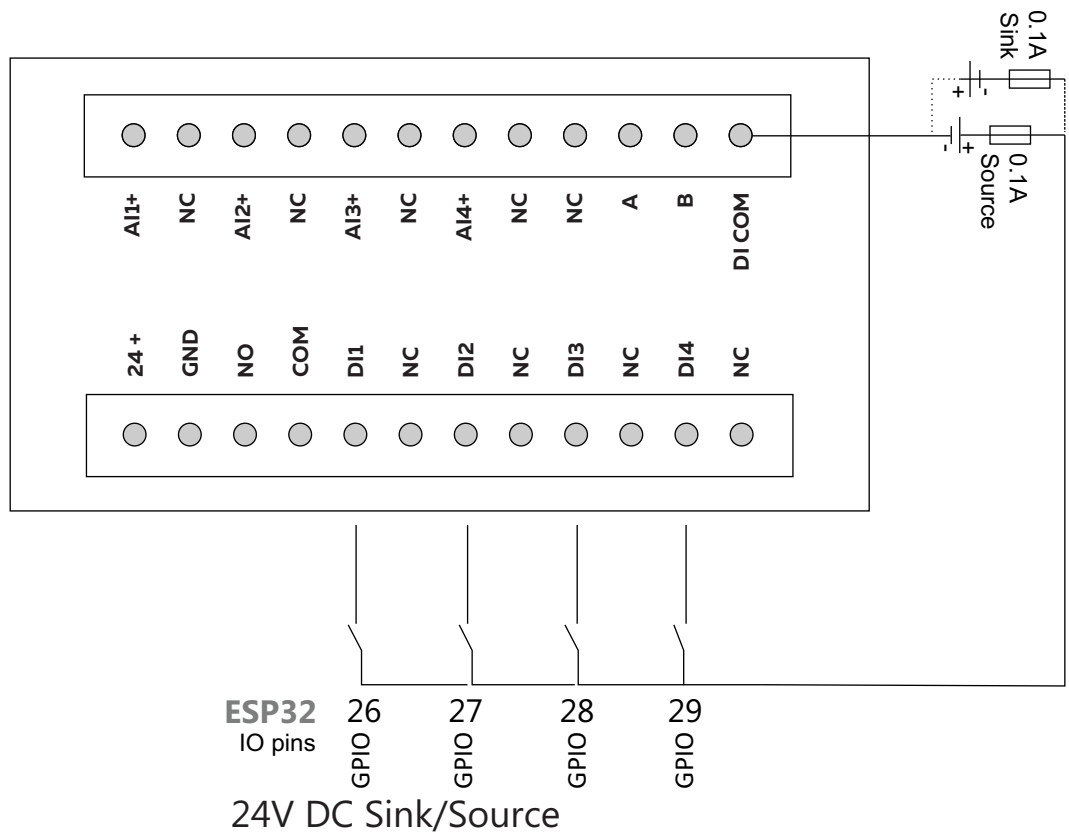
Complementary

Local signalling	1 LED green for PWR 4 LED red for Digital Inputs 1 WS2812 pixel RGB Led
Electrical connection	Removable screw terminal block for inputs and outputs (pitch 5.08 mm)
Mounting support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715
Height	86.00 mm
Depth	59.00 mm
Width	35.00 mm
Product weight	0.91 Kg

Environment

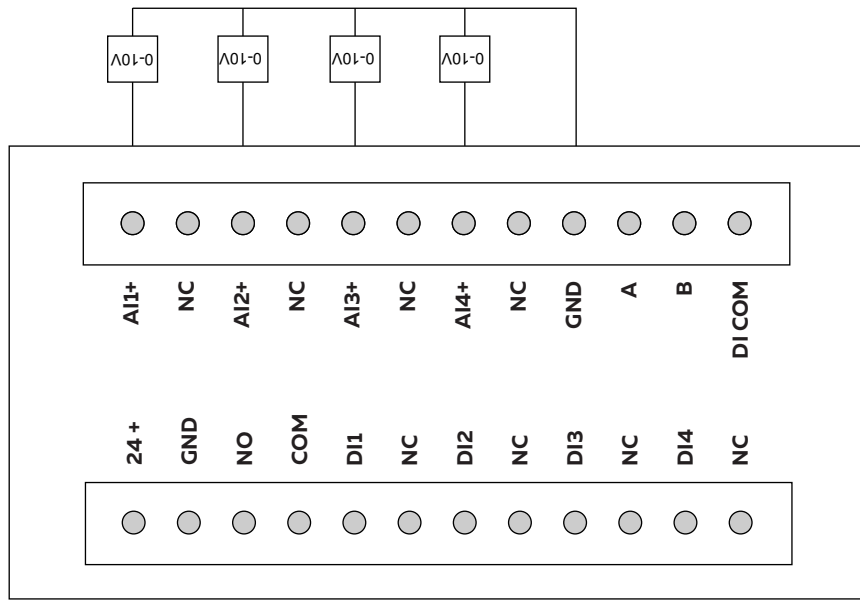
Relative humidity	10....95% without condensation in operation
IP degree of protection	IP20
Operating altitude	0...2000m
Storage altitude	0...3000m
Shock resistance	15 gn for 11 ms
Operating temperature	-40 to +85 'C

Digital inputs wiring diagram

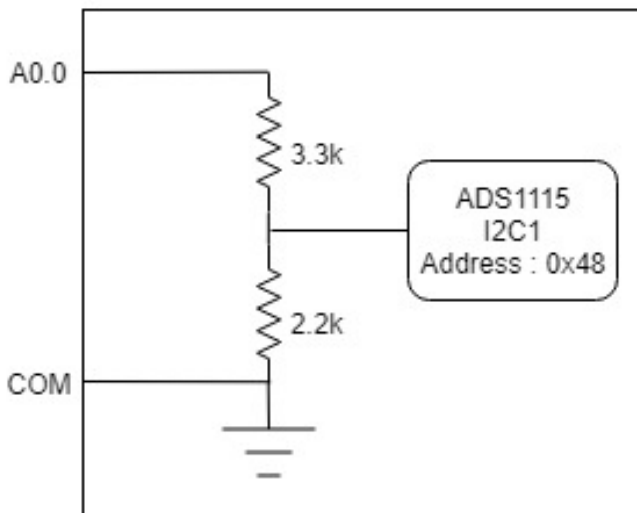


Analog Inputs wiring diagram

0 - 10 V DC



0 - 10 V input to 0 - 4V

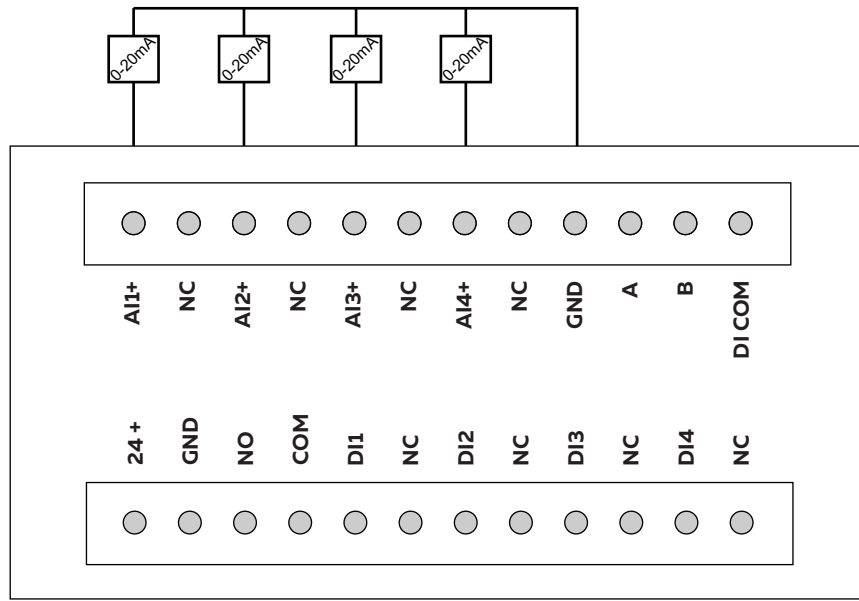


ADS1115 connections

IC Type	ADS 1115
Communication	I2C IO16 - IO17
Module Address	0x48 / 0x49
Resolution	16 bit

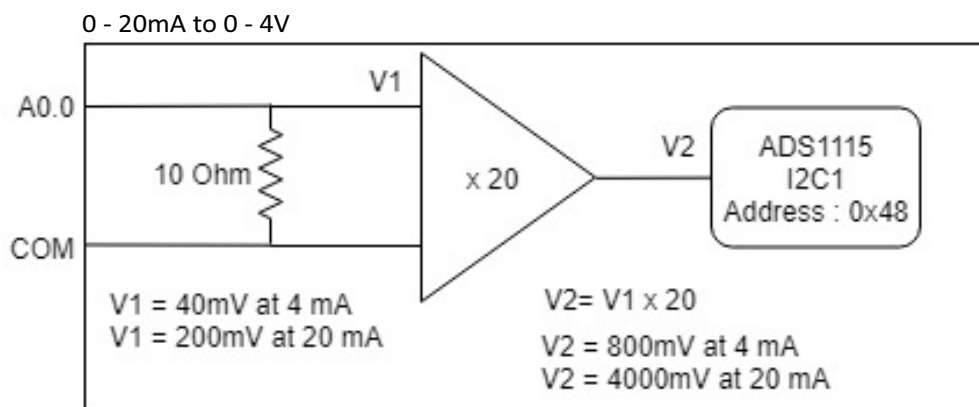
Analog Inputs wiring diagram

0 - 20mA DC

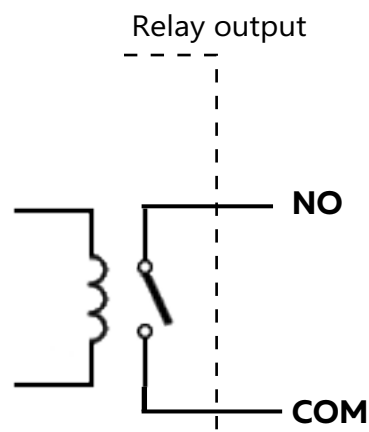
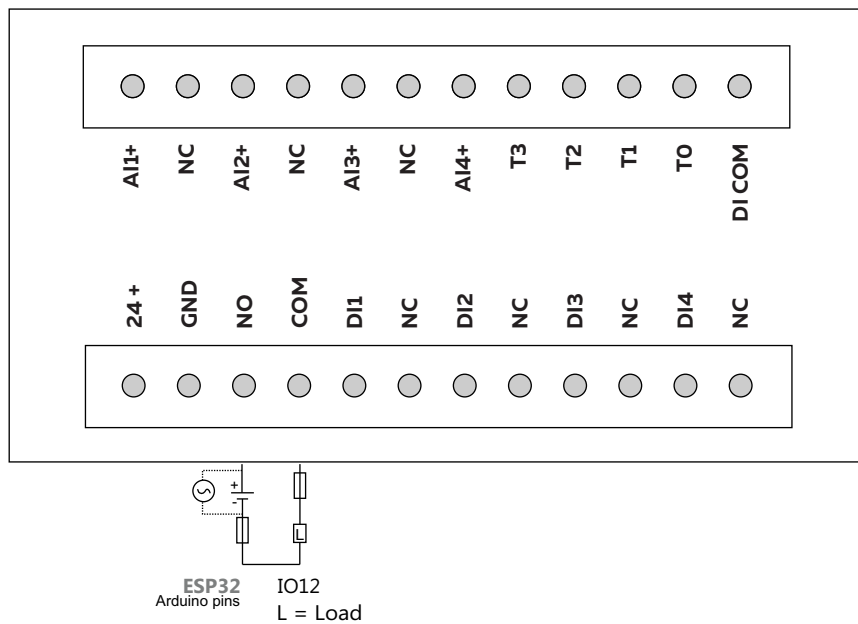


ADS1115 connections

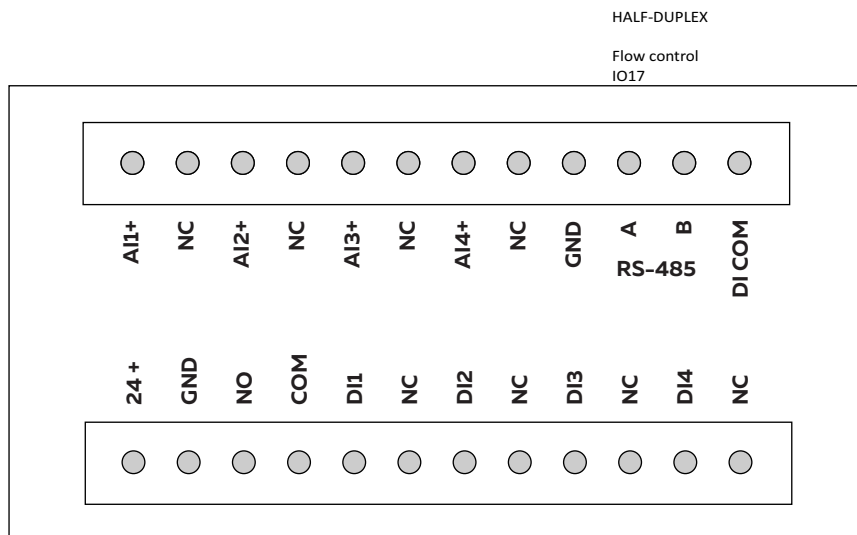
IC Type	ADS 1115
Communication	I2C IO16 - IO17
Module Address	0x48 / 0x49
Resolution	16 bit



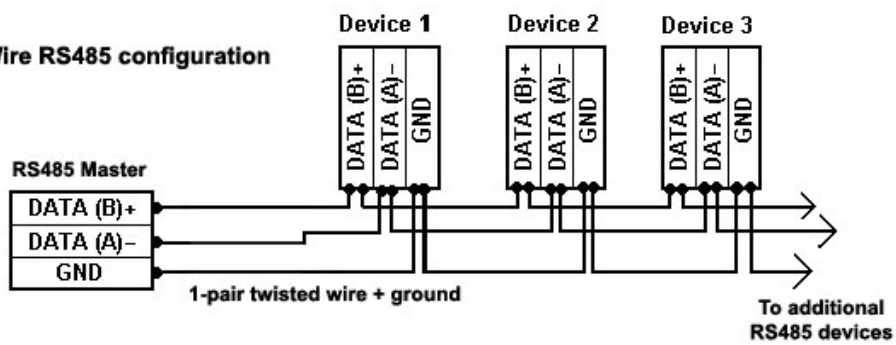
Transistor outputs wiring diagram



RS-485 wiring diagram



2-Wire RS485 configuration



Built in buttons

Read mode	Digital Input IO 35
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Pixel RGB LED

Module Type	WS2812
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Communication	One wire
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Connection	GPIO 4
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0.96 OLED Display parameters

Display driver	SSD1306
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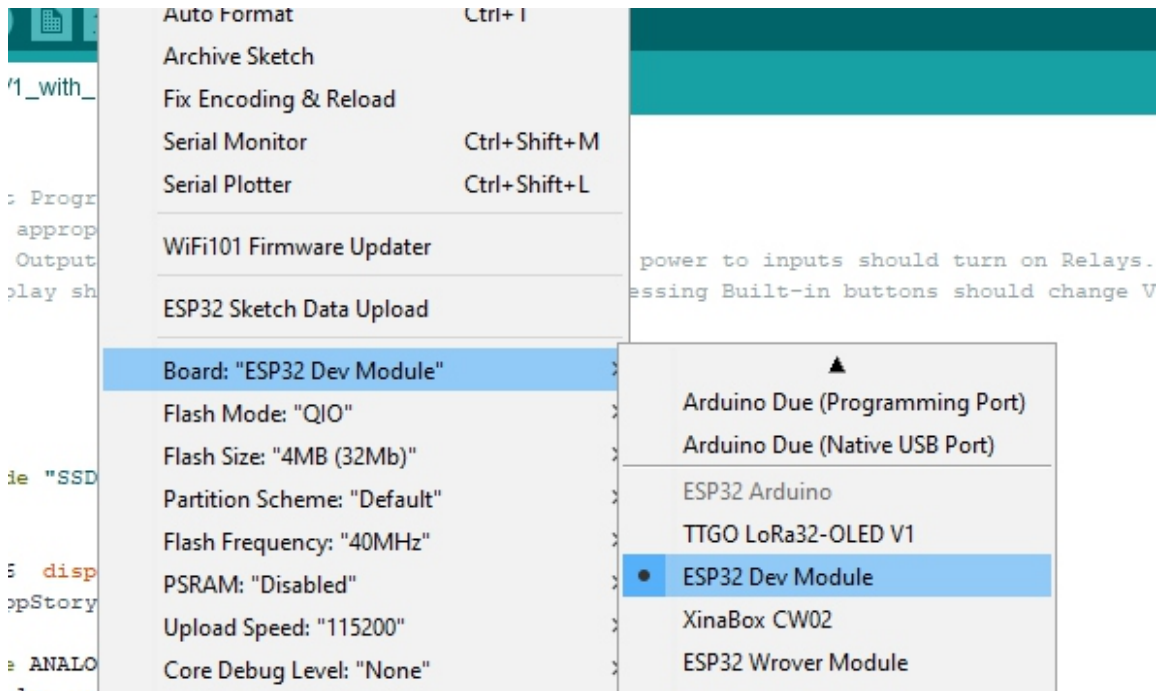
Communication	I2C IO16(SDA) - IO17(SCL)
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Module Address	0x3C
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Resolution	128 x 64
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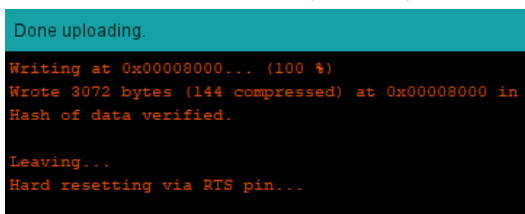
Example program and libraries available at
<https://norvi.lk/forums>

Programming procedure



Board	ESP32 Dev Module
Flash Mode	QIO
Flash Size	4MB
Flash Frequency	10MHz
PSRAM	Enabled
Upload Speed	115200

After successful uploading of program following message appears.



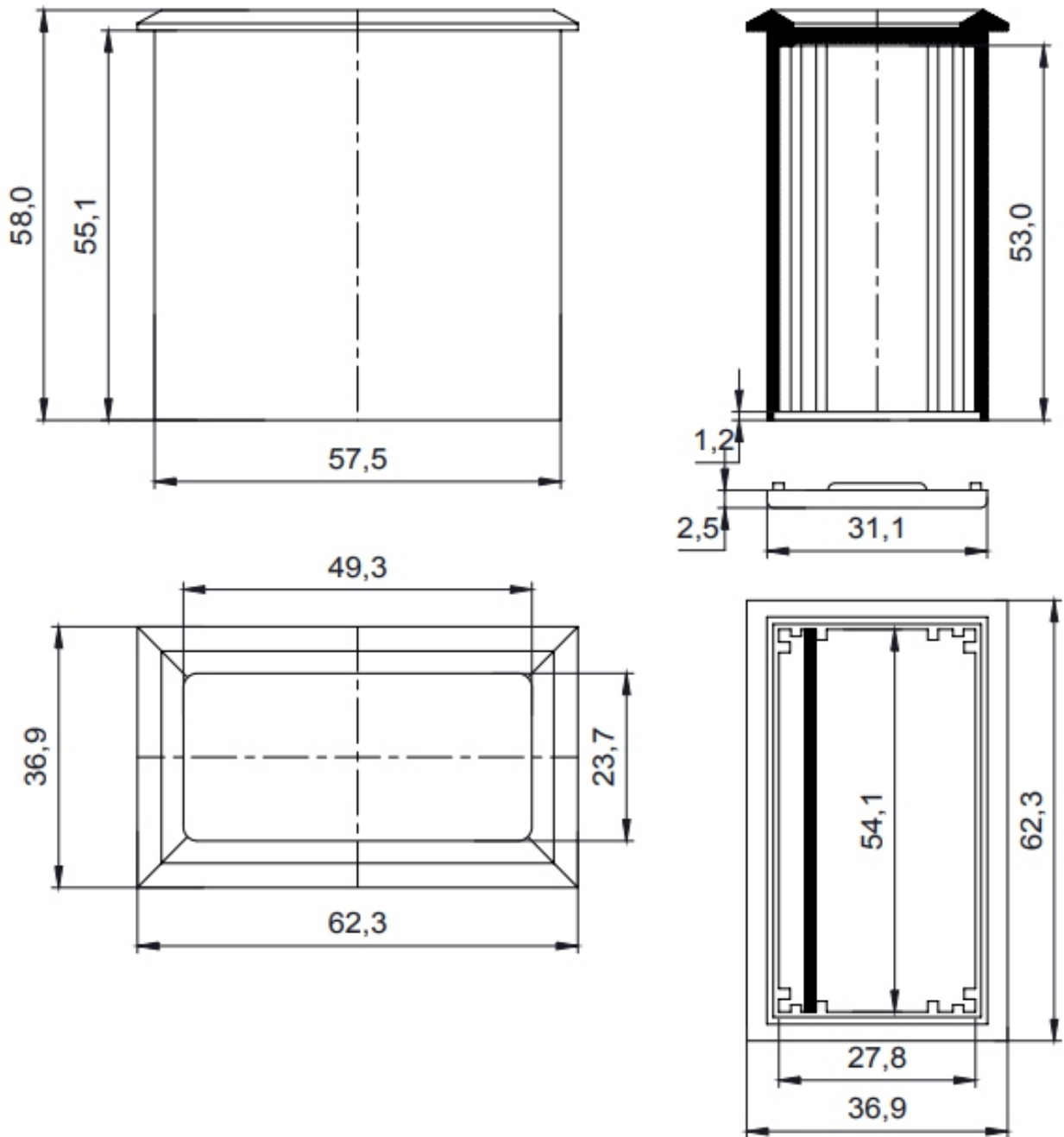
esp32 Boards must be installed under board manager, it is recommended to use the latest version of esp32 board driver for Arduino.

Due to installation of different drivers and older versions of libraries, Arduino fails to upload the program to the controller. In most cases it is due to failure to enter boot mode of the device.

The device can be forced to boot mode by connecting the BOOT IO0 of the expansion port to the GND pin with a jumper wire. Arduino is able to upload the program to controller while the controller is in boot mode.

After uploading the program , the connection between the BOOT IO0 and GND must be removed to run the uploaded program.

Dimensions





Reach-Us

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