

# CAN isolator gateway

Version 1.0 [2026/06/08]



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*You should satisfy yourself that you are safely install and troubleshoot electrical systems and satisfy any legal requirements you may be subject to before beginning the project.*

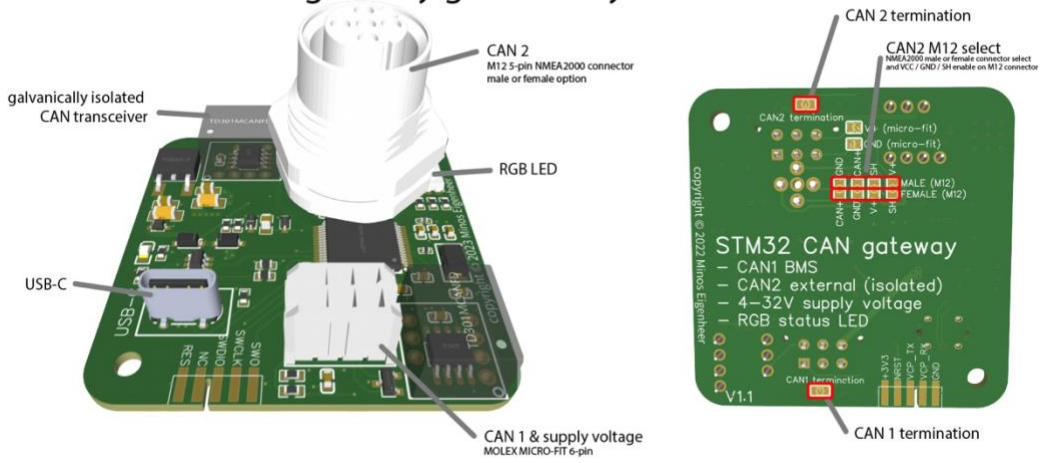
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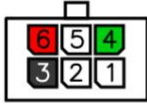
# 1 Hardware overview

## MISMOtech CAN gateway galvanically isolated

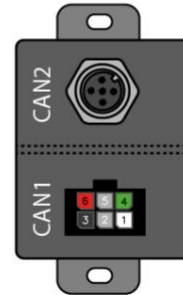


## 2 Pinout

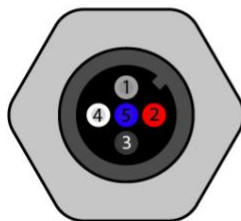
### CAN 1 micro-fit 6p.



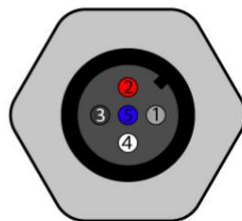
- ① CAN Low
- ② Analog input 1
- ③ GND
- ④ CAN High
- ⑤ Analog input 2
- ⑥ Voltage supply 12V



### CAN 2 galvanically isolated NMEA2000 M12 5p. connector



female



male

- ① Shield (optional SJ) not isolated!
- ② PWR (optional SJ) not isolated!
- ③ GND (optional SJ) not isolated!
- ④ CAN H isolated
- ⑤ CAN L isolated



## Connection diagram



### 3 CAN bus notes

>> Use twisted and shielded cable for the CAN bus.

>> Don't use drop cables longer than 0.5m.

>> Make sure you have two 120-ohm termination resistors connected on each CAN bus!

The gateway has on-board termination resistors (split terminator type) which can be enabled with a solder jumper on the back of the PCB.

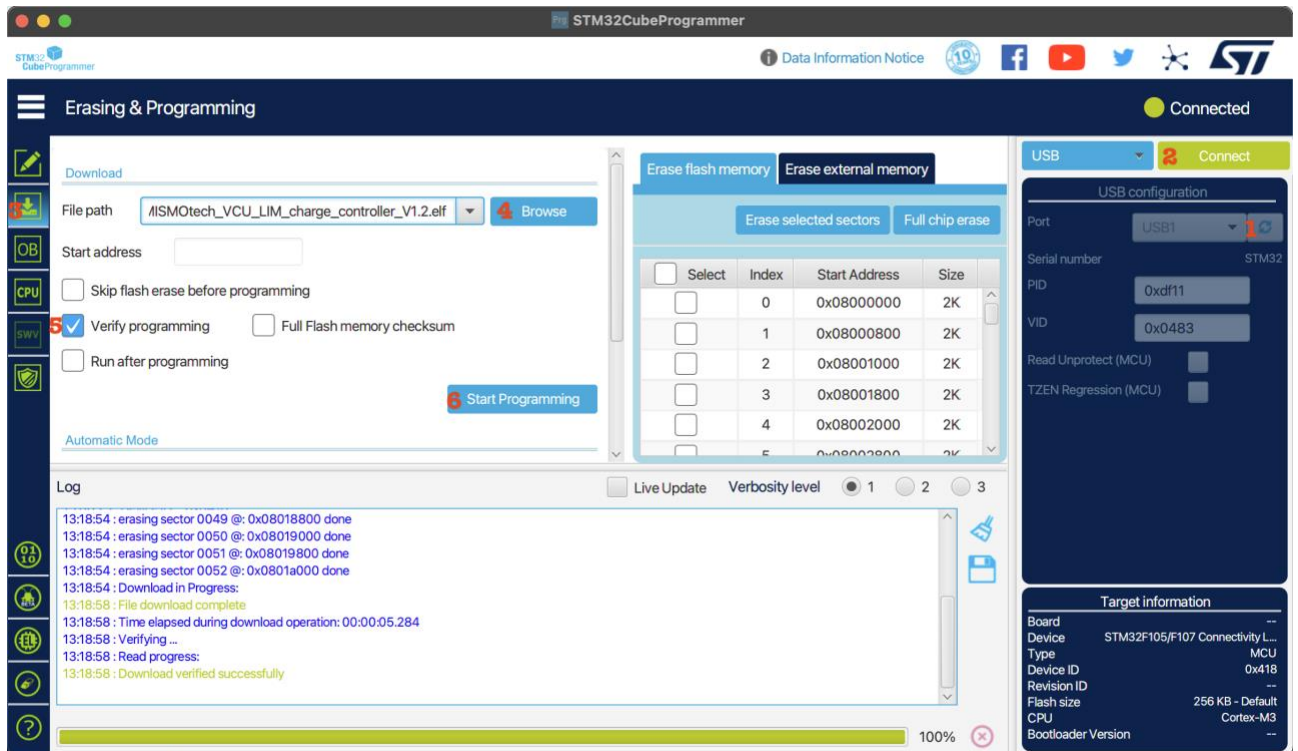
## 4 RGB status LED

Yellow dimmed	No connection
Green breath	Ready
Off	No Power supply
Dark blue	SW update mode

## 5 CAN gateway software update process

The controller software can be updated with a USB-C data cable. **Make sure the cable has actually data wires and not only power!** The device is also powered by the USB during the software update.

1. Download and install STM32CubeProgrammer for your operating system. <https://www.st.com/en/development-tools/stm32cubeprog.html>
2. Disconnect the CAN cables from the gateway to turn it off. Remove the case with the two screws at the bottom.
3. Connect a USB-C cable from your computer to the device. The status LED should be blue.
4. Select USB as the communication method in STM32CubeProgrammer. It sometimes takes a few seconds before the device is recognized in DFU mode, just press the refresh button a couple of times until you see USB1 device. >> Try a different USB cable if it does not work.
5. Press “Connect” to establish a connection to the device.
6. Move to the Erasing & Programming tab on the left and press “Browse” to select the \*.elf image with the new software.
7. Select “Verify programming”.
8. Make sure “Run after programming” is **not** selected.
9. Press “Start Programming” and wait until the process finishes. Do not disconnect the device during the download process!
10. You should get a few pop-ups with the “File download complete” and “Download Verified successfully” messages and your VCU should be updated at this point. You can press “Disconnect” and remove the USB-C cable.
11. Put controller back in the case and reconnect the CAN cables.



## 6 Revision history

Revised on	Version	Description	Approved by
01-06-2023	0.1	Initial document creation	ME
08-06-2026	1.0	Publish document	ME