

SIM BOARD USB UVR16x2

Manual version 1.00 EN

Simulation board



Operating manual

en

Function

The SIM board can be used in one of two ways:

1. Through integration into a **CAN bus network** and with the corresponding controller settings, the SIM board can be used to simulate temperatures in every device **with X2 technology**. This makes it possible to test a program in an **existing** system.
2. Temperatures can be simulated using the **USB port** and **X2-Simulator** simulation software.

The SIM board has 16 potentiometers which can be used to simulate temperatures between approx. -50 °C and +250 °C.

Simulation is possible for all programmed **temperature inputs**, no matter which sensor type has been programmed.

If a sensor is defined as a **room sensor** (RASPT or RAS), the **operating mode** (Time/auto / Standard / Setback / Standby) will also be shown according to the potentiometer setting. The program will change to the next highest operating mode whenever the temperature exceeds 51.2 °C.

- ◆ Time/auto = room temperature according to potentiometer
- ◆ Standard = room temperature + 51.2 °C
- ◆ Setback = room temperature + 102.4 °C
- ◆ Standby/frost protection = room temperature + 153.6 °C



Using the two **changeover switches** for **inputs 15 and 16**, these inputs can be simulated as analogue temperature inputs or digital inputs, **depending on programming**.

In the left-hand switch position, **analogue inputs** are simulated.

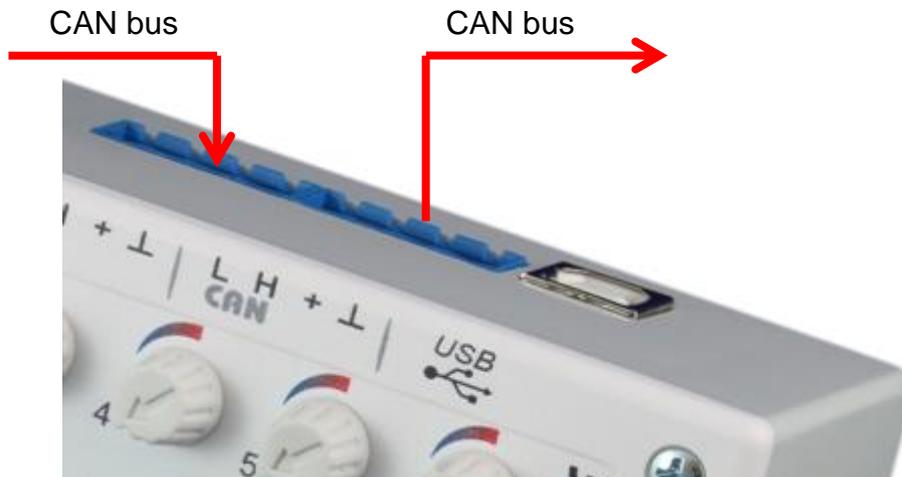
In the centre or right-hand switch position, the inputs are **digital inputs** (OFF/ON).

Quickly tapping a switch can also represent a **pulse input**.

Usage in the CAN bus network

The SIM board can be used with all devices that have **X2 technology**, i.e. with UVR16x2, RSM610, CAN-I/O module 45 and CAN-EZ2 energy meter.

1. Connect to the CAN bus network using one of the CAN ports (looping through is also possible using the second port).



2. Set menu setting "**General settings / Simulation**" of the X2 device to "**CAN SIM board**" (only possible for "Experts")



The simulated temperatures of **all** X2 devices are applied to a CAN network where the simulation is set to "**CAN SIM board**".

If the simulation is applied to a device that does **not** have a display screen, e.g. an RSM610, a temperature change is only shown after a few seconds when the RSM610 is operated via a display unit (UVR16x2 or CAN monitor).

If the simulated device is operated via a **C.M.I.**, a temperature change is only shown when the screen is refreshed (press **F5** on the PC keyboard).

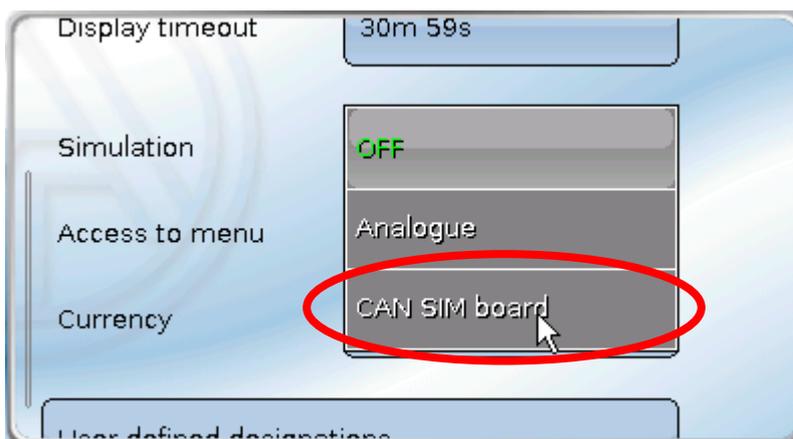
Usage with the X2-Simulator

X2-Simulator simulation software can be downloaded free of charge from our homepage www.ta.co.at. It can also be used without a SIM board.

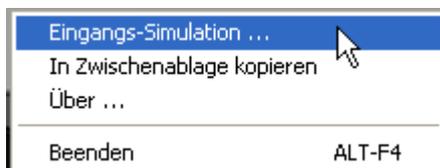
1. Connect the **USB cable** to the PC.



2. Start the "**X2-Simulator**" software and set menu setting "**General settings / Simulation**" of the simulated X2 device to "**CAN SIM board**" (only possible for "Experts")



3. Start the "**Eingangs-Simulation**" (Input simulation) by right-clicking in the simulation window.



In the input simulation window, you can now define the setting limits and simulate short circuits or lead breaks for every sensor.

Example: Sensor 1

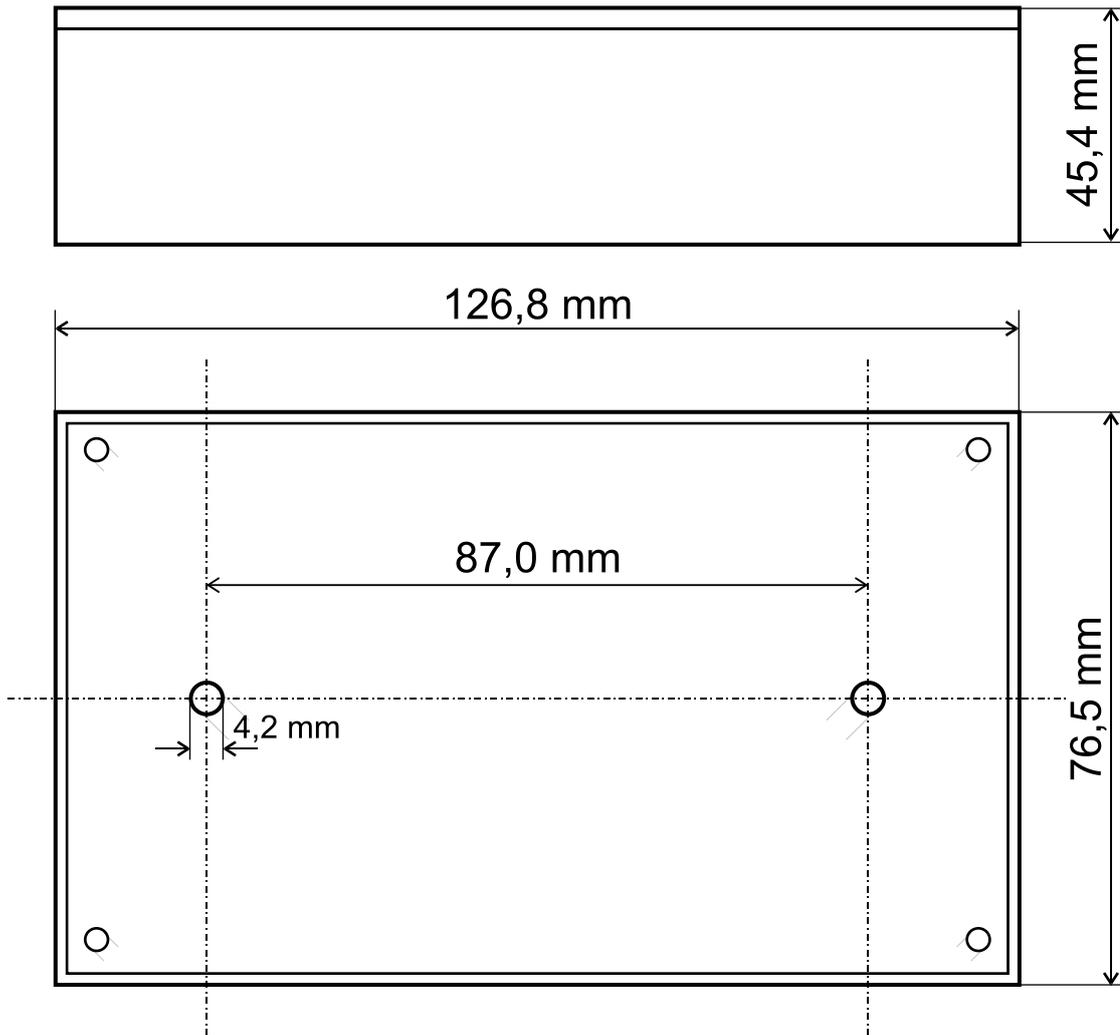


In this example, the limits have been set to 0 °C to 150 °C.

Ticking "**UB**" or "**KS**" simulates a sensor short circuit (KS) or lead break (UB).

The slide bar is not functional when used with the USB SIM board.

Fixing dimensions and measurements



Technical data

IP rating

IP 40

Permissible ambient temperature

+5 °C to +45 °C

Installation location

Only in dry rooms

Guarantee conditions

Note: The following guarantee conditions do not limit statutory rights to a warranty, but rather expand your consumer rights.

1. Technische Alternative RT GmbH provides a two-year guarantee from the date of purchase to the end user for all devices and parts it sells. Defects must be reported immediately upon detection and within the guarantee period. Technical support can supply the correct solution no matter what the issue. In this respect, contacting us immediately will help to avoid unnecessary expense and effort in troubleshooting.
2. The guarantee includes free repair (but not the cost of on-site fault finding, removal, refitting and shipping) due to operational and material defects which impair operation. Goods will be replaced if a repair is uneconomical in the opinion of Technische Alternative for reasons of cost.
3. Excluded are losses resulting from the effects of a voltage surge or abnormal ambient conditions. Likewise, no liability can be accepted if the device defect is due to: transport damage for which we are not responsible, incorrect assembly and installation, incorrect use, failure to observe the operating and installation instructions or incorrect maintenance.
4. The guarantee will become void if repairs or actions are carried out by people who are not authorised to perform them or have not been so authorised by us, or if our devices are operated with spare parts, auxiliary parts or accessories that are not considered to be original parts.
5. Faulty parts must be returned to our factory with a copy of the proof of purchase and a precise fault description. Processing is accelerated if an RMA number is requested via our homepage www.ta.co.at. The defect must be clarified with our technical support beforehand.
6. Services provided under guarantee result neither in an extension of the guarantee period nor in a commencement of a new guarantee period. The guarantee period for fitted parts ends with the guarantee period of the whole device.
7. Further or other claims, especially those for compensation for losses other than to the device itself (insofar as such liability is not required by statute) are excluded.

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