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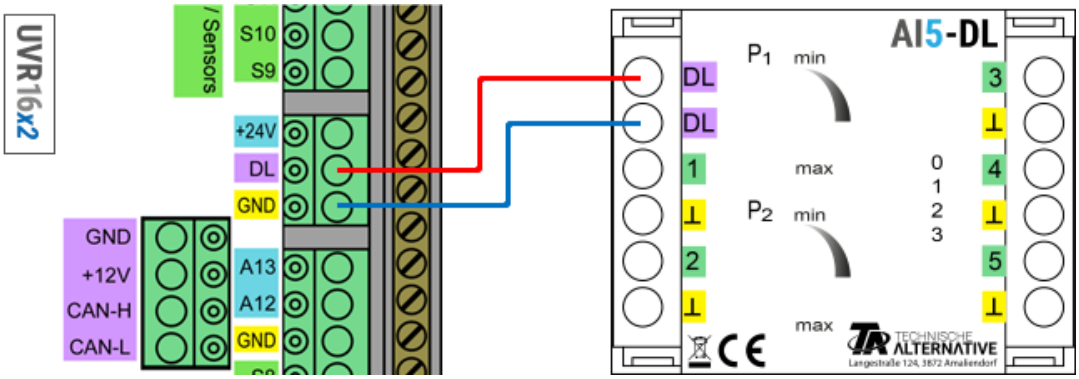
Analogue Input Extension

The AI5-DL (= „**A**nalogue **I**nput“) translates signals for the data link (DL bus). These can originate from up to 5 different external 0-10 V sources. It is recommended, that the 0-10V sensors that are being evaluated be connected to the same controller as the AI5-DL itself. It is recommended that the 0-10 V sensors that are being read out and the AI5-DL be supplied with power from the same controller.

Electrical Connection

Example: Connection to a UVR16x2 controller



The principles of DL bus cabling are described extensively in the installation instructions for the freely programmable controllers. The polarity of the data link is interchangeable.

Index

The AI5-DL forwards values to the data link via 12 indices. These are measured via the inputs.

Index	Unit	Source	
1	Volt	External sensor	Channel 1
2	Volt	External sensor	Channel 2
3	Volt	External sensor	Channel 3
4	Volt	External sensor	Channel 4
5	Volt	External sensor	Channel 5
6-13	unused		
14	dimensionless	Serial number of the module	
15	dimensionless	Software version (without decimal points)	

DL address

The AI5-DL has a default address of 1. This address can be changed using the DIP switches in the device. The final address is made up of the default 1 and the sum of the DIP switches that are switched to „ON“.

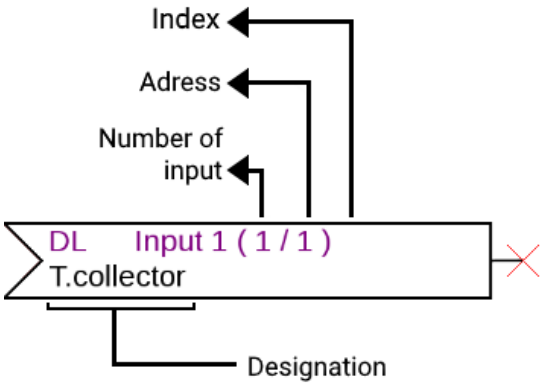
Example

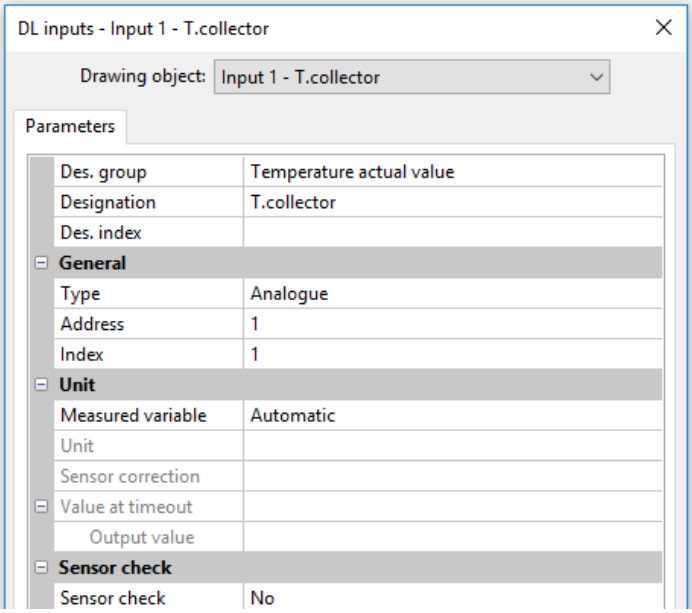
Desired address	**6**
Default setting	1
Dip-switches 1 and 4	+ 5
Sum = Address	**= 6**
DIP switches **1** and **4** must be set to **ON.**	

Position of DIP switches acc. to example.

Programming in TAPPS2

In the following examples, the default DL bus address of 1 is used.





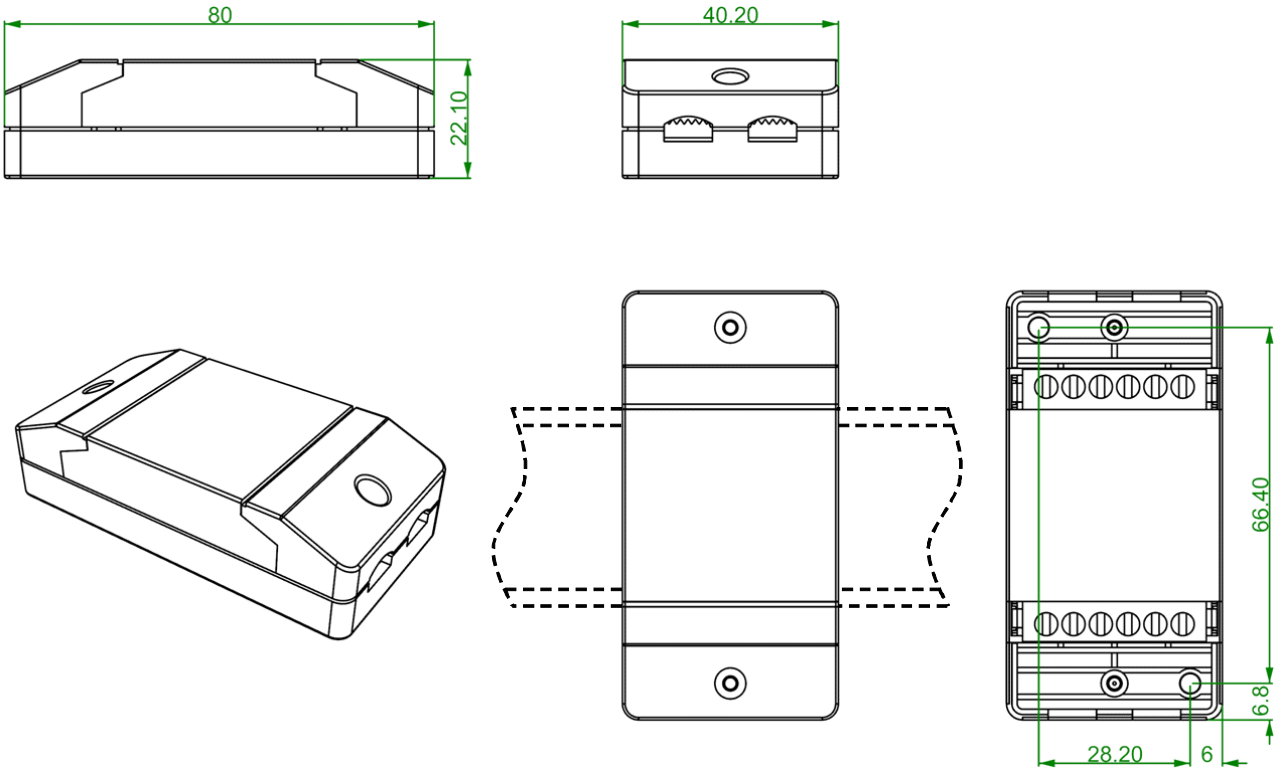
The most important settings can be found under **General.** Here state the DL bus address (WE = 1) set on the AI5-DL as well as the index of the desired value.

If the **Measured variable** is set to **Automatic**, it is not possible to perform any further settings under **Unit**.

The table found under **Index** (page 2) provides information about which index outputs which value with which measured variable.

On this model, Indices **6-12** are surplus to requirements, as the device does not have any buttons, DIP switches or potentiometers.

Dimensions in mm



Top-hat rail installation (support rail TS35 to standard EN 50022)

Technical Data	
DL bus load	15%
IP rating	IP20
Terminal	max. 1,5 mm^2
Max. ambient temperature	45 °C
Input voltage range	0-10 V
Resolution	1000 stages (0,01V per stage)

Subject to technical modifications as well as typographical and printing errors. This manual is only valid for devices with the corresponding firmware version. Our products are subject to constant technical advancement and further development. We therefore reserve the right to make changes without prior notice.