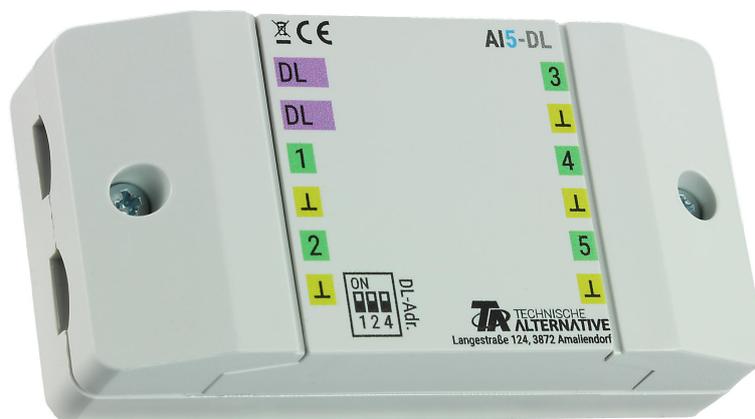# AI5-DL
INPUT EXTENSION
Version 1.02

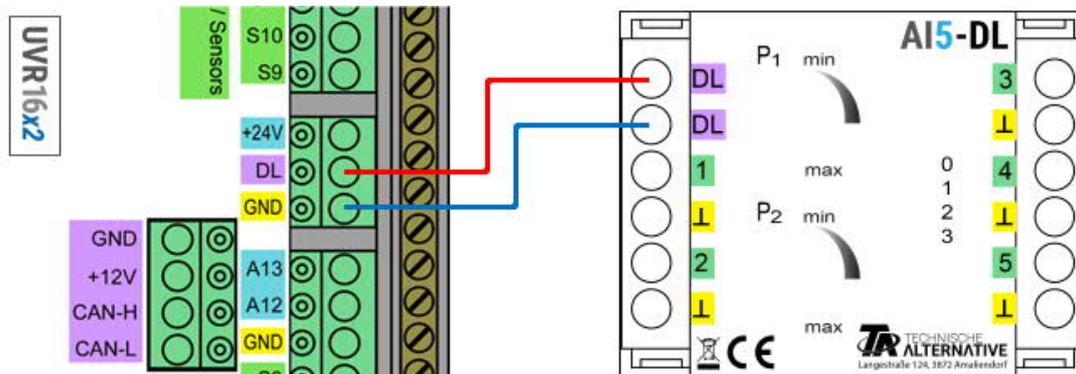## Mode of operation
Programming

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	Percent	Potentiometer*	-
7	Percent	Potentiometer*	-
8	Dimensionless	DIP-switch*	-
9	Dimensionless	Button*	-
10	Dimensionless	Button*	-
11	Dimensionless/Flip-Flop	Button*	-
12	Dimensionless/Flip-Flop	Button*	-
13	Not relevant for AI5-DL		
14	Dimensionless	Serial number of the module	
15	Dimensionless	Software version (without decimal points)	

*Button, DIP switch and potentiometer only on versions AI5S-DL and AI5T-DL.

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".
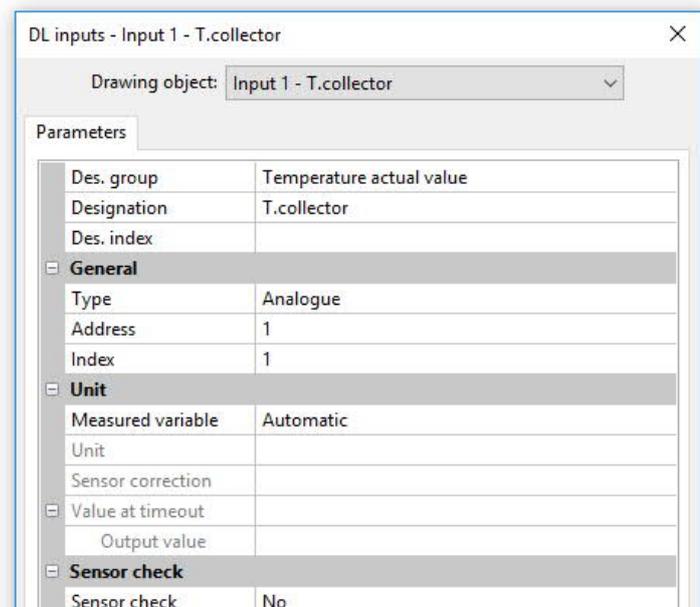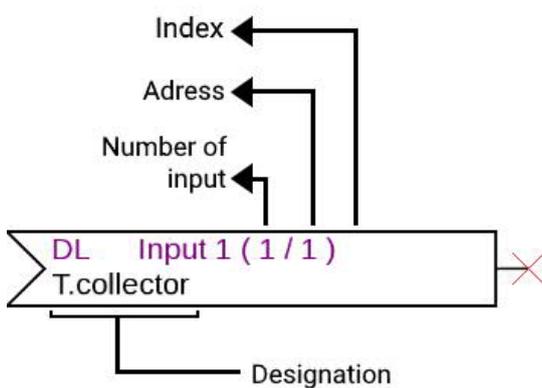
Example

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.
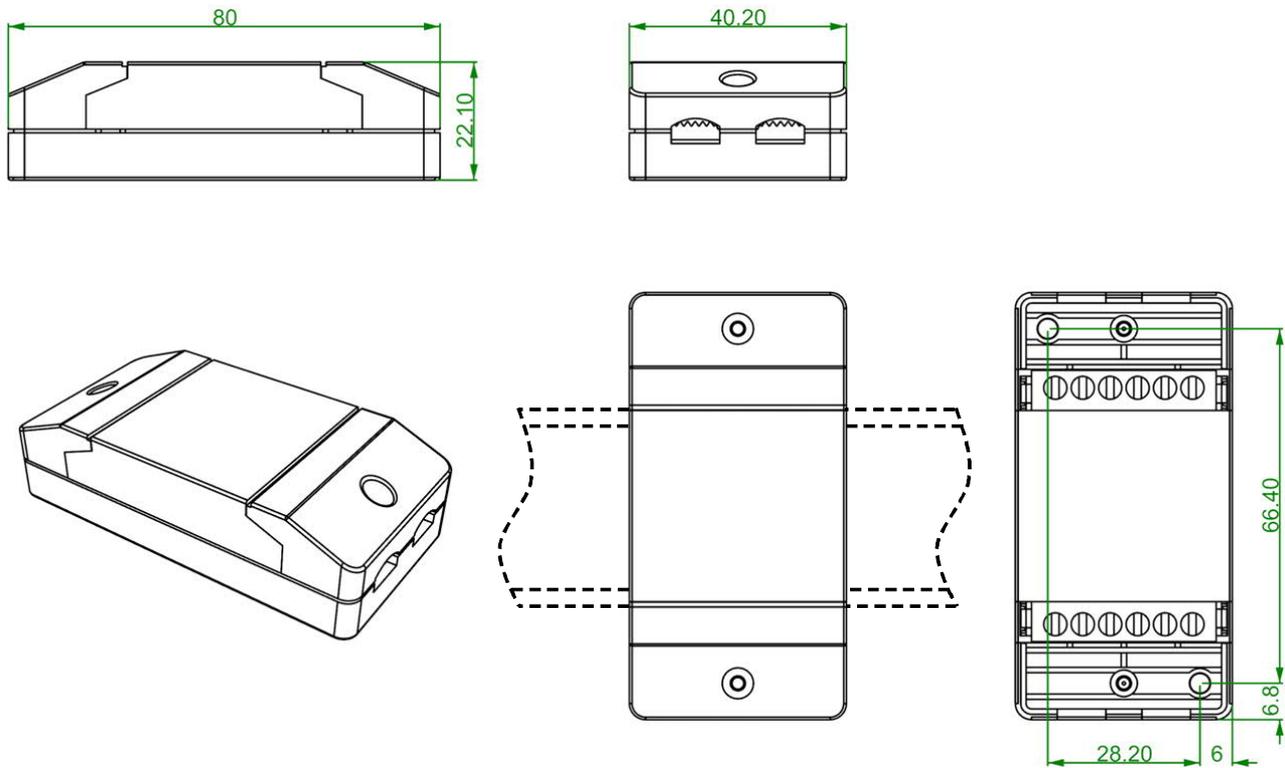

The most important settings can be found under **General.** Here state the DL bus address (WE = 1) set on the AI5-DL as well as the index of the desired value.

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	IP40
Terminal	max. 1,5 mm^2
Max. ambient temperature	45 °C
Input voltage range	0-10 V

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