DI5-DL
INPUT EXTENSION
Version 1.02
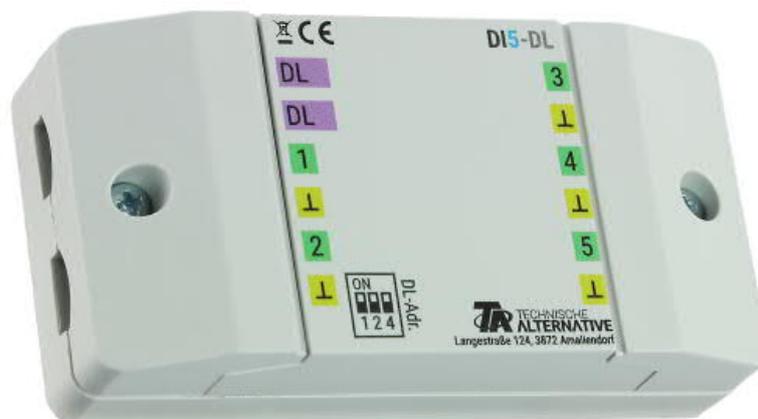

Mode of operation
Programming

English

The DI5-DL (= "**D**igital **I**nput") translates digital signals for the data link (DL bus) and issues them to corresponding indices. There is also an index that issues all input statuses as a dimensionless number, which enables all inputs to be read out via one index/number, using the "Range function" in "Binary decoder" mode. This functionality is only supported by x2 devices.

Please note: due to the inertia of the DL bus, this module is not suitable for time-critical applications (e.g. as a pushbutton).

Electrical connection
Example: connection to a UVR16x2 controller
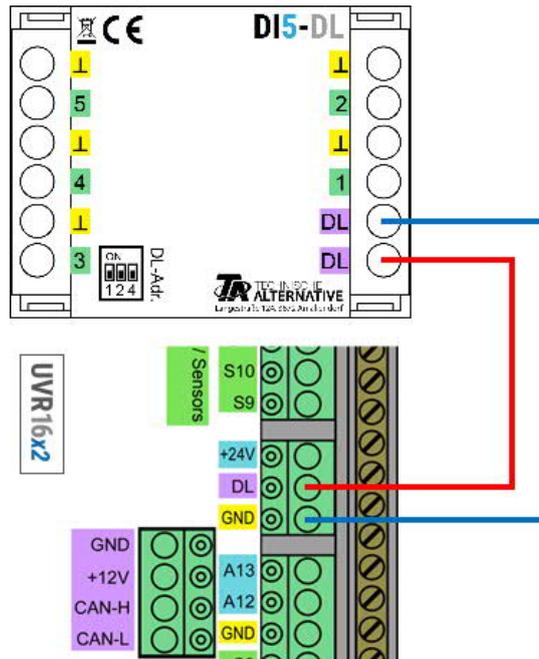
The principles of DL bus cabling are described extensively in the installation instructions for the freely programmable controllers. The polarity of the data link is interchangeable.
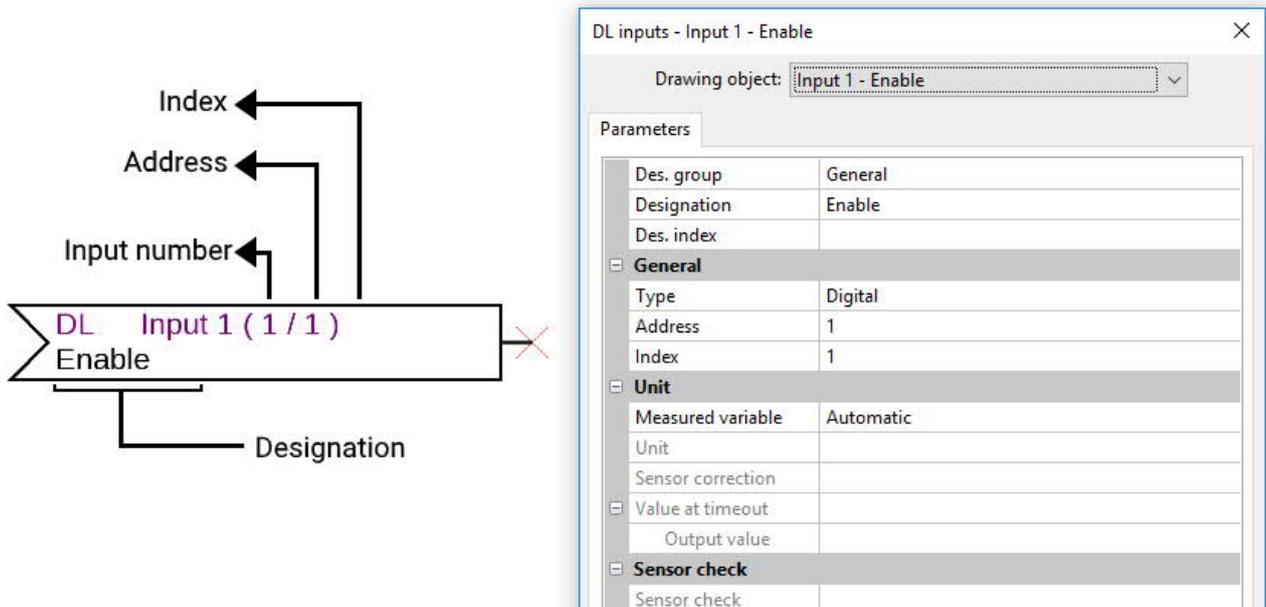
Index
The DI5-DL forwards values to the data link via 13 indices. These correspond to the input statuses.

Index	Unit	Source/value	
1	On/Off	External signal	Input 1
2	On/Off	External signal	Input 2
3	On/Off	External signal	Input 3
4	On/Off	External signal	Input 4
5	On/Off	External signal	Input 5
6-12	Not relevant to DI5-DL		
13	Dimensionless	Dimensionless number from 0-31, which issues all input statuses in binary. See chapter "Binary decoder".	
14	Dimensionless	Serial number of the module	
15	Dimensionless	Software version (without decimal points)	

Programming in TAPPS2

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

The most important settings can be found under **General.** Here, specify the DL bus address set on the DI5-DL (default 1), as well as the index of the required input.

If the **Measured variable** is set to **Automatic**, no further settings are required under **Unit**.

The table found under **Index** (page 2) provides information about which index belongs to which input status.

Binary decoder (only x2 devices)

To evaluate every 5 input statuses using a single number/index, a range function is required in binary decoder mode.
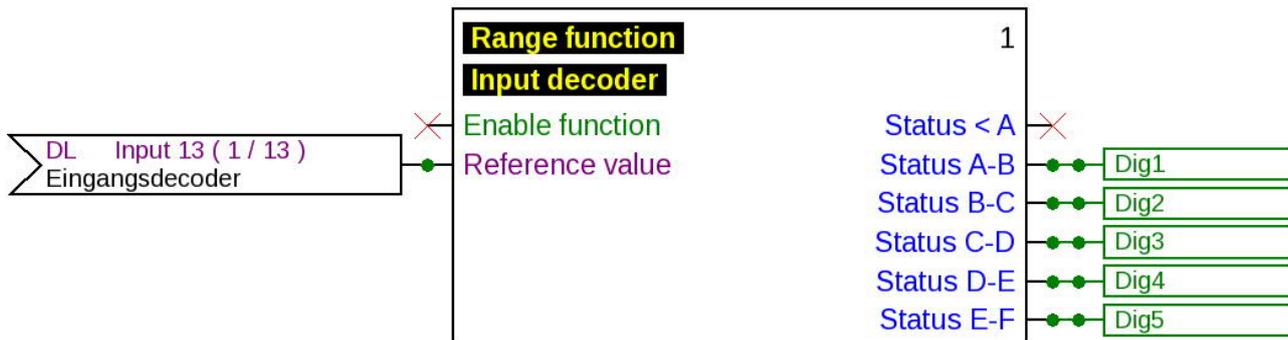
The DL input with **Index 13** issues a number between 0 and 31, which is decoded by the binary decoder to produce a binary number with the input statuses. That DL input must therefore be linked to the input variable **Reference value** (as shown in the graphic).

The settings for the thresholds must be made in accordance with the graphic below.
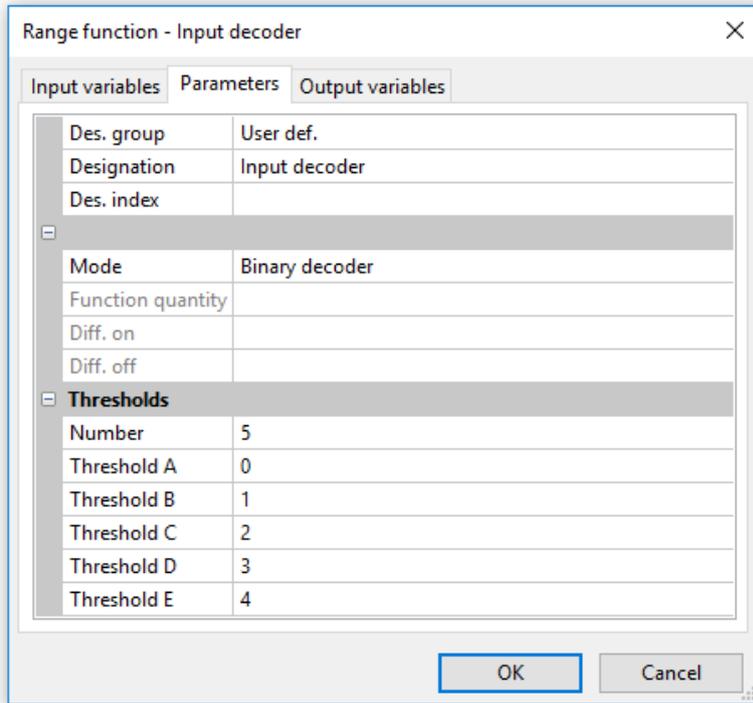
5 thresholds, defined in sequence from 0 to 4, correctly transfer the decoded value.

The binary decoder uses output variable **Status A-B** to issue the status of input 1; output variable **Status B-C** to issue the status of input 2, etc. The user is responsible for the further use of these variables.

DL address

The DI5-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 set to "ON".
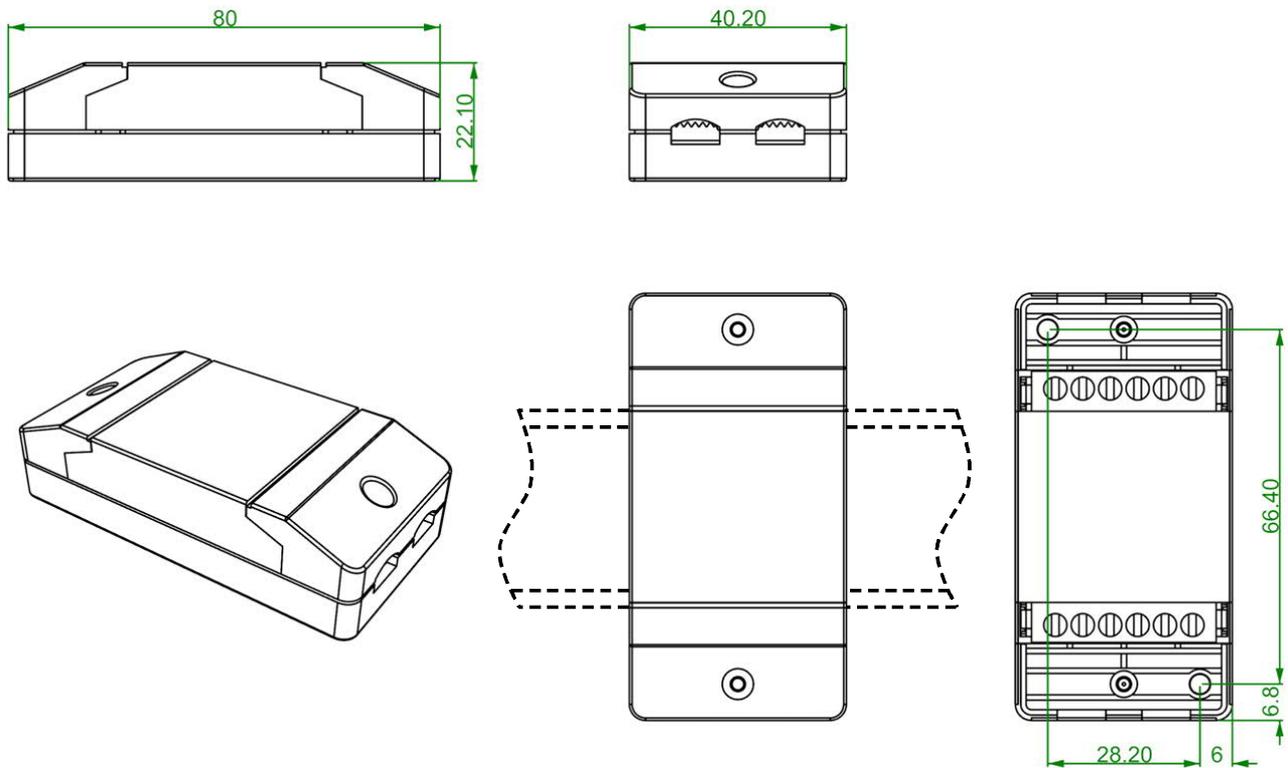
Example

Required 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 as per the example.

Dimensions in mm

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

Technical data	
DL bus load	11 %
IP rating	IP 40
Terminal area	max. 1.5 mm^2
Max. ambient temperature	45 °C

Subject to technical modifications.

©2018