

Function Block 152

Range Transform

Function Description

Transform the input signal from one range to another. Output is calculated as follows:

$$Output = (Input - B) \left(\frac{C - D}{A - B} \right) + D$$

Where: A = Input range max value.

B = Input range min value.

C = Output range max value.

D = Output range min value.

Popup Parameters

- Input Range
High value: Range: -32678...+32767
Low value: Range: -32678...+32767
- Output Range
High value: Range: FP32 (Real)
Low value: Range: FP32 (Real)
- Execution sequence number.

frmPopup152

Function Block type: FB152

Transform signal range INT/FP32

Parameters

Input Range (INT)

Low value: 204

High value: 1023

Output Range (FP32)

Low value: 0.0

High value: 100.0

Execution Sequence Nr.

Current: 12

New: 0

Cancel Accept

Input/Output Parameters

Type	Description	Data Type	Range
Input	Signal input	INT	-32678...+32767
Output	Signal Output	FP32	32Bit Real

Application

This function block is particularly helpful when transforming Analog inputs (range 0...1023) to a signal in engineering units (i.e. -10.0120.0 DegC)

Notes:

Function block 152 can be executed in Cycle and Time tasks.