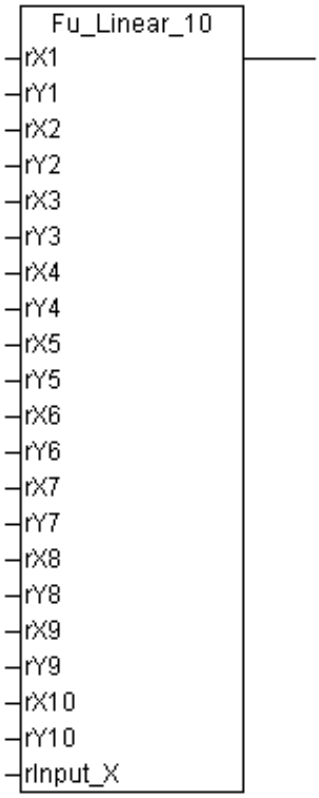
Linear 10 point (characteristic curve)

WAGO-I/O-*PRO* 32 Library elements			
Category:	Building automation		
Name:	Fu_Linear_10point		
Type:	Function ☒	Function block ☐	Program ☐
Library name:	Linear10.lib		
Applicable to:	All programmable fieldbus controllers		
Input parameter:	**Data type:**	**Comment:**	
rX1	REAL	Reference value X for point 1	
rY1	REAL	Output value Y at point 1	
…	…	…	
…	…	…	
rX10	REAL	Reference value X for point 10	
rY10	REAL	Output value Y at point 10	
rInput_X	REAL	Input signal before conversion	
Feedback value:	**Data type:**	**Comment:**	

Graphical display:



Time referenced behavior:

Function description:

Straight segments are defined by the points (rX1, rY1) to (rX10, rY10). The input value ***"rInput_X"*** is divided into segments, linearized and put out at output ***"rY"*** by means of these points. As such, the entered points determine the value of the output signal Y=f(x). **Ensure that the reference points X are always entered in an ascending order**. Reference points Y may be entered in any order. Outside of the defined area, the points of the last segment are applied. To limit the output value outside of the defined segments, we recommend to define identical values for the last Y points.
If two consequential X points are identical, the output value is set to 0.