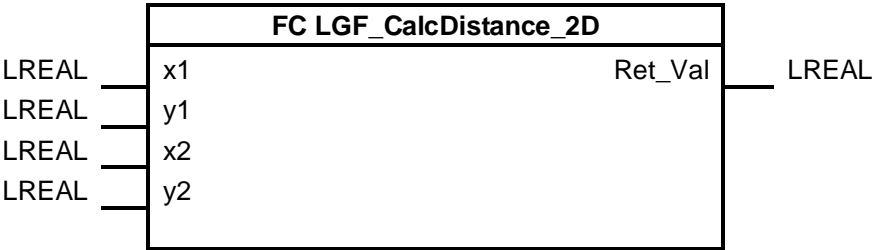


LGF_CalcDistance_2D

Short description

The function calculates the distance between two points in the plane.

Block



Input parameters

Parameters	Data type	Description
x1	LREAL	X coordinate point 1
y1	LREAL	Y coordinate point 1
x2	LREAL	X coordinate point 2
y2	LREAL	Y-coordinate point 2

Output parameters

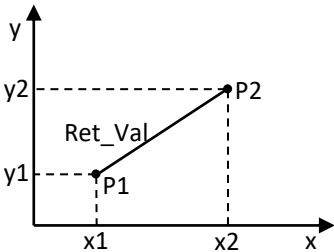
Parameters	Data type	Description
Ret_Val	LREAL	Calculated distance

Principle of operation

The block calculates the distance between two points in a Cartesian coordinate system. The distance is calculated with the following formula:

$$Ret_Val = \sqrt{(x2 - x1)^2 + (y2 - y1)^2}$$

Figure Fehler! Kein Text mit angegebener Formatvorlage im Dokument.-1: Graphical representation



Further information on libraries in TIA Portal:

- Topic page libraries
<https://support.industry.siemens.com/cs/ww/en/view/109738702>
- Guideline on Library Handling
<https://support.industry.siemens.com/cs/ww/en/view/109747503>
- Programming Guideline for S7-1200/1500 in chapter "Libraries"
<https://support.industry.siemens.com/cs/ww/en/view/81318674>
- Programming Styleguide
<https://support.industry.siemens.com/cs/ww/en/view/81318674>