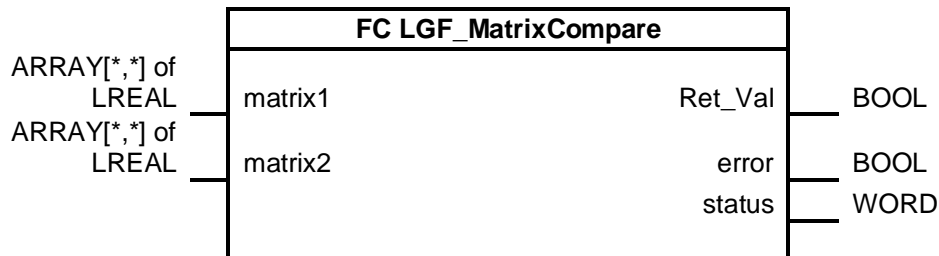


## LGF\_MatrixCompare

### Short description

This function block compares two matrices of the data type ARRAY[\*,\*] of LREAL of equal size.

### Block



### Input/output parameters (InOut)

Parameters	Data type	Description
matrix1	ARRAY[*,*] of LREAL	First summand (matrix)
matrix2	ARRAY[*,*] of LREAL	Second summand (matrix)

### Output parameters

Parameters	Data type	Description
Ret_Val	BOOL	TRUE: Both matrices are identical.
error	BOOL	FALSE: No error TRUE: An error occurred during the execution of the FB.
status	WORD	16#0000-16#7FFF: Status of the FB, 16#8000-16#FFFF: Error identification (see following Table).

### Status and error displays

status	Meaning	Remedy / notes
16#0000	No error	-
16#8200	Lower limit rows(Dim1) of the arrays of Matrix1 and Matrix2 are different.	All arrays must have the same low limit, for example: Array[0..2, 0..2] of LREAL
16#8201	Lower-limit columns(Dim2) of the arrays of Matrix1 and Matrix2 are different.	All arrays must have the same low limit, for example: Array[0..2, 0..2] of LREAL
16#8202	Upper-limit rows(Dim1) of the arrays of Matrix1 and Matrix2 are different.	All arrays must have the same high limit, for example: Array[0..2, 0..2] of LREAL
16#8206	Upper-limit columns(Dim2) of the arrays of Matrix1 and Matrix2 are different.	All arrays must have the same high limit, for example: Array[0..2, 0..2] of LREAL

### Principle of operation

The block compares two matrices of the same size. If both matrices are identical, the return value of the function is set to TRUE.

#### Note

Note that all input matrices must have the same lower and upper limit, and, therefore, the same number of columns and rows.

**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>