

RTDR3RD

G3F-RD3A Temperature change value reading(For remote)

Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>NET_NO : Slot location number(0~7) installed the communication module of local station(G3F-FUEA, G3F-FUOA) to send the function block</p> <p>ST_NO : Station number(0~63) of communication module(G3F-RBEA, G3F-RBOA) installed at remote I/O station</p> <p>BASE : G3F-RD3A module installation base location number</p> <p>SLOT : Slot location number of G3F-RD3A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Output</p> <p>NDR : On if the function block is executed without error and Off at next SCAN</p> <p>ERR : On when the error occurs during executing the function block.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that read the conversion value after completing the function block. The element value of the channel will be '1'.</p> <p>Note 1) ALM : Error mark display of each channel during operation. The element value of the channel will be '1'.</p> <p>Note 1) ALM_CODE: Error status display of each channel during operation.</p> <p>Note 1) TEMP : Temperature change value(-200.0 ~+600.0℃). Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 1) SCAL : Convert the temperature change value(-200.0 ~+600.0℃) to the scaling of 0~16000 range.</p>
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>	

■ Function

Set the preset value for each channel and arrange the operation to operate G3F-RD3A module installed at remote station.

■ Program example

LD	IL
	<pre> LD M0 ANDN B ST REQ CAL RTDR3RD REQ := NET_NO := ST_NO := BASE := SLOT := CH := LD RTD_RRD.NDR ST B LD RTD_RRD.ERR ST %Q0.0.0 LD RTD_RRD.STAT ST STAT LD RTD_RRD.ACT ST ACT LD RTD_RRD.ALM ST ALM LD RTD_RRD.ALM_CODE ST ALM_CODE LD RTD_RRD.TEMP ST TEMP LD RTD_RRD.SCAL ST SCAL </pre>

TC2ARD

G4F-TC2A Temperature change value reading(Array type)

Product	GM1	GM2	GM3	GM4	GM5
Applicable				●	

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request</p> <p>BASE : G4F-TC2A module installation base location number</p> <p>SLOT : Slot location number of G4F-TC2A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Assign the respective element value to '1' for channel.</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution is not generated.</p> <p>Note 2) STAT : Error status during the function block execution.</p> <p>Note 3) ACT : Channel display that executed the data reading after completing the function block. The element value of the channel will be '1'.</p> <p>Note 3) ALM : Error mark display of each channel during operation. The element value of the channel will be '1'.</p> <p>Note 3) ALM_CODE : Error status display of each channel during operation.</p> <p>Note 3) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 3) SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>	

■ **Function**

Read the operation status and temperature change of each channel value that G4F-TC2A module outputs during operation.

■ **Program example**

LD	IL
	<pre> CAL TC2ARD TC_ARD REQ := %I0.0.0 BASE := BASE SLOT := SLOT CH := CH LD TC_ARD.DONE ST %Q0.1.0 LD TC_ARD.STAT ST STAT LD TC_ARD.ACT ST ACT LD TC_ARD.ALM ST ALM LD TC_ARD.ALM_CODE ST ALM_CODE LD TC_ARD.TEMP ST TEMP LD TC_ARD.SCAL ST SCAL </pre>

TC2ARD

G5F-TC2A Temperature change value reading(Array type)

Product	GM1	GM2	GM3	GM4	GM5
Applicable					●

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request</p> <p>MODL : G5F-TC2A module location number</p> <p>Note 1) CH : Assign the channel to be used. Assign the respective element value to '1' for channel.</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated.</p> <p>Note 2) STAT : Error status display during the function block execution.</p> <p>Note 3) ACT : Channel display that executed the data reading after completing the function block. The element value of the channel will be '1'.</p> <p>Note 3) ALM : Error mark display of each channel during operation.</p> <p>Note 3) ALM_CODE : Error status display of each channel during operation.</p> <p>Note 3) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 3) SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>	

■ **Function**

Read the operation status and temperature change of each channel value that G5F-TC2A module outputs during operation.

■ **Program example**

LD	IL
	<pre> CAL TC2ARD REQ := %I0.0.0 MODL := MODL CH := CH LD TC_ARD.DONE ST %Q0.1.0 LD TC_ARD.STAT ST STAT LD TC_ARD.ACT ST ACT LD TC_ARD.AL ST ALM LD TC_ARD.AL_CODE ST ALM_CODE LD TC_ARD.TEMP ST TEMP LD TC_ARD.SCAL ST SCAL </pre>

TC2INI

G4F-TC2A Module initialization

Product	GM1	GM2	GM3	GM4	GM5
Applicable				●	

Function block	Description																					
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>BASE : G4F-TC2A module installation base location number</p> <p>SLOT : Slot location number of G4F-TC2A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Note 1) TYPE : Assign the sensor type of each channel.</p> <table border="1"> <thead> <tr> <th>Input allocation</th> <th>Sensor type</th> <th>Temperature range</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>K</td> <td>-200.0~1200.0℃</td> </tr> <tr> <td>1</td> <td>J</td> <td>-200.0~800.0℃</td> </tr> <tr> <td>2</td> <td>E</td> <td>-150.0~600.0℃</td> </tr> <tr> <td>3</td> <td>T</td> <td>-200.0~400.0℃</td> </tr> <tr> <td>4</td> <td>B</td> <td>400.0~1800.0℃</td> </tr> <tr> <td>5</td> <td>R</td> <td>0.0~1750.0℃</td> </tr> </tbody> </table> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that executed the data writing after completing the function block. The element value of the channel will be '1'.</p>	Input allocation	Sensor type	Temperature range	0	K	-200.0~1200.0℃	1	J	-200.0~800.0℃	2	E	-150.0~600.0℃	3	T	-200.0~400.0℃	4	B	400.0~1800.0℃	5	R	0.0~1750.0℃
Input allocation	Sensor type	Temperature range																				
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[] : Indicate ARRAY variable and number in the parenthesis is the element number.

■ **Function**

Set the preset value for each channel and arrange the operation to operate G4F-TC2A module.

■ **Program example**

LD	IL
	<pre> CAL TC2INI TC_INI REQ := %I0.0.0 BASE := BASE SLOT := SLOT CH := CH TYPE := TY LD TC_INI.DONE ST %Q0.1.0 LD TC_INI.STAT ST STAT LD TC_INI.ACT ST ACT </pre>

TC2INI

G5F-TC2A Module initialization

Product	GM1	GM2	GM3	GM4	GM5
Applicable					●

Function block	Description															
	<p>Input REQ : Function block execution request at rising edge</p> <p>MODL : G5F-TC2A module location number</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Note 1) TYPE : Assign the sensor type of each channel.</p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th>Input allocation</th> <th>Sensor type</th> <th>Temperature range</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>K</td> <td>-200.0~1200.0℃</td> </tr> <tr> <td>1</td> <td>J</td> <td>-200.0~800.0℃</td> </tr> <tr> <td>2</td> <td>E</td> <td>-150.0~600.0℃</td> </tr> <tr> <td>3</td> <td>T</td> <td>200.0~400.0℃</td> </tr> </tbody> </table> <p>Output DONE : On if the function block is finished without error and Off if the error occurs.</p> <p>STAT : Error status during the function block execution.</p> <p>Note 1) ACT : Channel display that executed the data writing after completing the function block. The element value of the channel will be '1'.</p>	Input allocation	Sensor type	Temperature range	0	K	-200.0~1200.0℃	1	J	-200.0~800.0℃	2	E	-150.0~600.0℃	3	T	200.0~400.0℃
Input allocation	Sensor type	Temperature range														
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1	J	-200.0~800.0℃														
2	E	-150.0~600.0℃														
3	T	200.0~400.0℃														
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>																

■ Function

Set the preset value for each channel and arrange the operation to operate G5F-TC2A module.

■ Program example

LD	IL
	<pre> CAL TC2INI TC_INI REQ := %I0.0.0 MODL := MODL CH := CH TYPE := TY LD TC_INI.DONE ST %Q0.1.0 LD TC_INI.STAT ST STAT LD TC_INI.ACT ST ACT </pre>

TC2RD

G4F-TC2A Temperature change value reading(Single type)

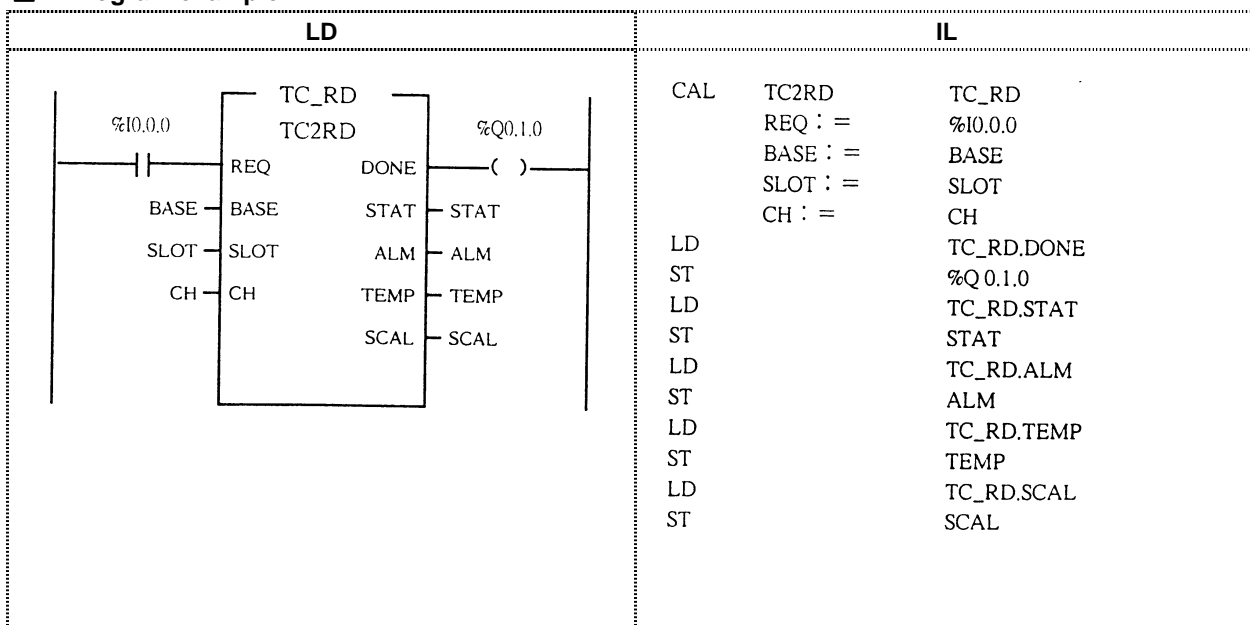
Product	GM1	GM2	GM3	GM4	GM5
Applicable				●	

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request</p> <p>BASE : G4F-TC2A module installation base location number</p> <p>SLOT : Slot location number of G4F-TC2A module installation base</p> <p>Note 1) CH : Assign the channel to be read the temperature change value(0~3).</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated.</p> <p>Note 2) STAT : Error status during the function block execution.</p> <p>Note 2) ALM : Error mark display of each channel during operation.</p> <p>Note 2) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 2) SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>

■ **Function**

Read the operation status and temperature change of each channel value that G4F-TC2A module outputs during operation.

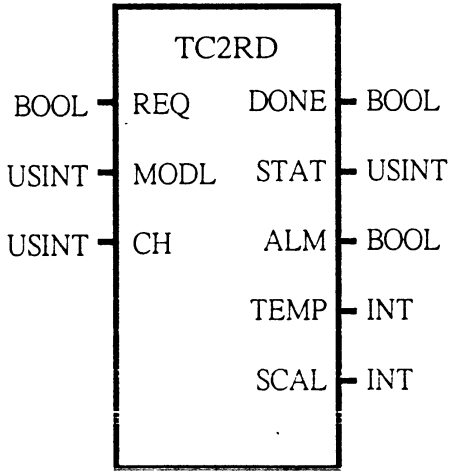
■ **Program example**



TC2RD

G5F-TC2A Temperature change value reading(Single type)

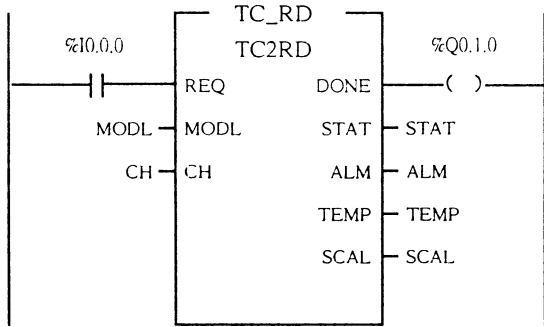
Product	GM1	GM2	GM3	GM4	GM5
Applicable					●

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request MODL : G5F-TC2A module location number CH : Assign the channel to be read the temperature change value(0~3).</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated. STAT : Error status during the function block execution. ALM : Error mark display of each channel during operation. TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value. SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>

■ **Function**

Read the operation status and temperature change of each channel value that G5F-TC2A module outputs during operation.

■ **Program example**

LD	IL
	<pre> CAL TC2RD TC_RD REQ := %I0.0.0 MODL := MODL CH := CH LD TC_RD.DONE ST %Q0.1.0 LD TC_RD.STAT ST STAT LD TC_RD.ALM ST ALM LD TC_RD.TEMP ST TEMP LD TC_RD.SCAL ST SCAL </pre>

TC4ARD

G3F-TC4A Temperature change value reading(Array type)

Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request</p> <p>BASE : G3F-TC4A module installation base location number</p> <p>SLOT : Slot location number of G3F-TC4A module installation base</p> <p>Note 1) CH : Assign the channel to read the temperature change value. Assign the respective element value to '1' for channel.</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated.</p> <p>Note 2) STAT : Error status display during the function block execution.</p> <p>Note 3) ACT : Channel display that executed the data writing after completing the function block. The element value of the channel will be '1'.</p> <p>Note 3) ALM : Error mark display of each channel during operation.</p> <p>Note 3) ALM_CODE : Error status display of each channel during operation.</p> <p>Note 3) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 3) SCAL : Convert the temperature change value to the scaling of 0-16000 range.</p>
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>	

■ **Function**

Read the operation status and temperature change value of each channel that G3F-TC4A module outputs during operation.

■ **Program example**

LD	IL
	<pre> CAL TC4ARD REQ := %I0.0.0 BASE := BASE SLOT := SLOT CH := CH LD TC_ARD.DONE ST %Q0.1.0 LD TC_ARD.STAT ST STAT LD TC_ARD.ACT ST ACT LD TC_ARD.ALM ST ALM LD TC_ARD.ALM_CODE ST ALM_CODE LD TC_ARD.TEMP ST TEMP LD TC_ARD.SCAL ST SCAL </pre>

TC4INI

G3F-TC4A Module initialization

Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description																								
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>BASE : G3F-TC4A module installation base location number</p> <p>SLOT : Slot location number of G3F-TC4A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Note 1) TYPE : Assign the sensor type of each channel.</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Input allocation</th> <th>Sensor type</th> <th>Temperature range</th> </tr> </thead> <tbody> <tr><td>0</td><td>K</td><td>-200.0~1200.0℃</td></tr> <tr><td>1</td><td>J</td><td>-200.0~800.0℃</td></tr> <tr><td>2</td><td>E</td><td>-150.0~600.0℃</td></tr> <tr><td>3</td><td>T</td><td>-200.0~400.0℃</td></tr> <tr><td>4</td><td>B</td><td>400.0~1800.0℃</td></tr> <tr><td>5</td><td>R</td><td>0~1750.0℃</td></tr> <tr><td>6</td><td>S</td><td>0~1750.0℃</td></tr> </tbody> </table> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that executed the data writing after completing the function block. The element value of the channel will be '1'.</p>	Input allocation	Sensor type	Temperature range	0	K	-200.0~1200.0℃	1	J	-200.0~800.0℃	2	E	-150.0~600.0℃	3	T	-200.0~400.0℃	4	B	400.0~1800.0℃	5	R	0~1750.0℃	6	S	0~1750.0℃
Input allocation	Sensor type	Temperature range																							
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<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>																									

■ **Function**

Set the preset value for each channel and arrange the operation to operate G3F-TC4A module.

■ **Program example**

LD	IL
	<pre> CAL TC4INI TC_INI REQ := %I0.0.0 BASE := BASE SLOT := SLOT CH := CH TYPE := TY LD TC_INI.DONE ST %Q0.1.0 LD TC_INI.STAT ST STAT LD TC_INI.ACT ST ACT </pre>

TC4RD

G3F-TC4A Temperature change value reading(Single type)

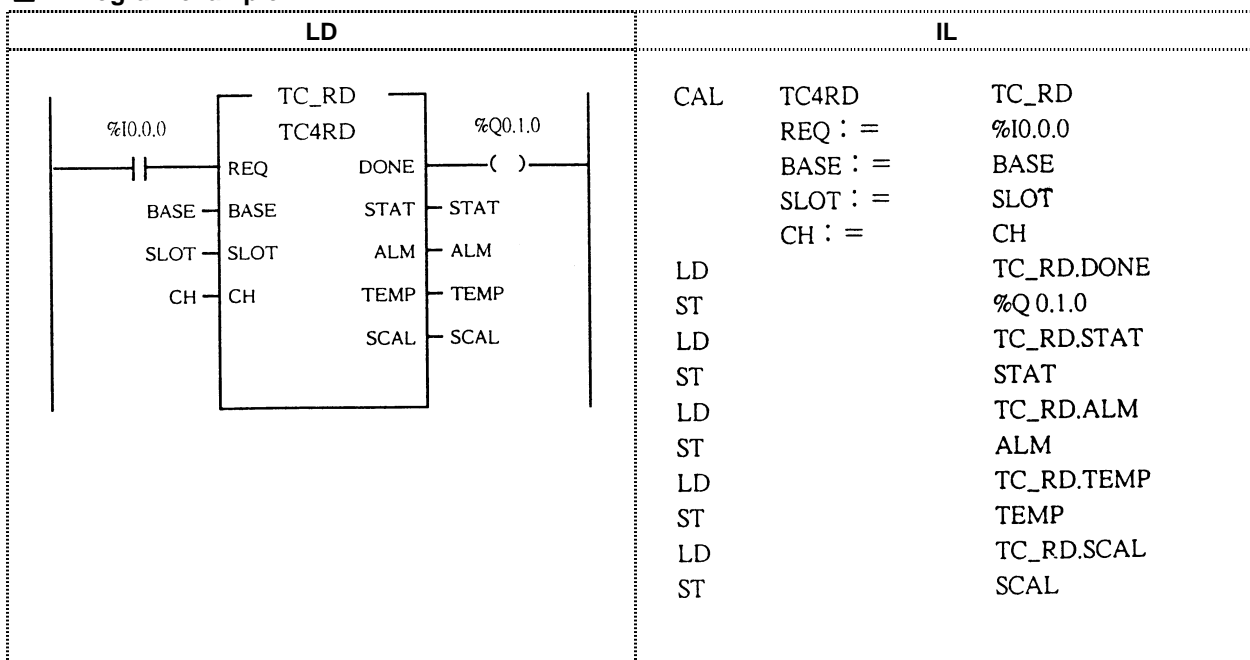
Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request</p> <p>BASE : G3F-TC4A module installation base location number</p> <p>SLOT : Slot location number of G3F-TC4A module installation base</p> <p>CH : Assign the channel to be read the temperature change value(0~15).</p> <p>Output</p> <p>DONE : On if the function block is executed without error and Off if the error occurs or function block execution request is not generated.</p> <p>Note 2) STAT : Error status during the function block execution.</p> <p>Note 2) ALM : Error mark display of each channel during operation.</p> <p>Note 2) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 2) SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>

■ **Function**

Read the operation status and temperature change value of each channel that G3F-TC4A module outputs during operation.

■ **Program example**



TCR2INI

G4F-TC2A Module initialization(For remote)

Product	GM1	GM2	GM3	GM4	GM5
Applicable				●	

Function block	Description																								
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>NET_NO : Slot location number(0~7) installed the communication module of local station(G4L-FUEA, G4L-FUOA) to send the function block</p> <p>ST_NO: Station number(0~63) of communication module (G4L-RBEA, G4L-RBOA) installed at remote I/O station</p> <p>BASE : G4F-TC2A module installation base location number</p> <p>SLOT : Slot location number of G4F-TC2A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Note 1) TYPE : Assign the sensor type of each channel.</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Input allocation</th> <th>Sensor type</th> <th>Temperature range</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>K</td> <td>-200.0~1200.0℃</td> </tr> <tr> <td>1</td> <td>J</td> <td>-200.0~800.0℃</td> </tr> <tr> <td>2</td> <td>E</td> <td>-150.0~600.0℃</td> </tr> <tr> <td>3</td> <td>T</td> <td>-200.0~400.0℃</td> </tr> <tr> <td>4</td> <td>B</td> <td>400.0~1800.0℃</td> </tr> <tr> <td>5</td> <td>R</td> <td>0.0~1750.0℃</td> </tr> <tr> <td>6</td> <td>S</td> <td>0.0~1750.0℃</td> </tr> </tbody> </table> <p>Output</p> <p>NDR : On if the function block is executed without error and Off at next SCAN</p> <p>ERR : On when the error occurs during executing the function block.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that executed data writing after completing the function block. The element value of the channel will be '1'.</p>	Input allocation	Sensor type	Temperature range	0	K	-200.0~1200.0℃	1	J	-200.0~800.0℃	2	E	-150.0~600.0℃	3	T	-200.0~400.0℃	4	B	400.0~1800.0℃	5	R	0.0~1750.0℃	6	S	0.0~1750.0℃
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[] : Indicate ARRAY variable and number in the parenthesis is the element number.

■ **Function**

Set the preset value for each channel and arrange the operation to operate G4F-TC2A module installed at remote station.

■ **Program example**

LD	IL
	<pre> LDN M0 AND A ST INI_REQ CAL TCR2INI REQ := INI_REQ NET_NO := NET_NO ST_NO := ST_NO BASE := BASE SLOT := SLOT CH := CH TYPE := TYPE LD TCR2INI.NDR S M0 LD TCR2INI.ERR ST ERR LD TCR2INI.STAT ST STAT LD TCR2INI.ACT ST ACT </pre>

TCR2RD

G4F-TC2A Temperature change value reading(Remote type)

Product	GM1	GM2	GM3	GM4	GM5
Applicable				●	

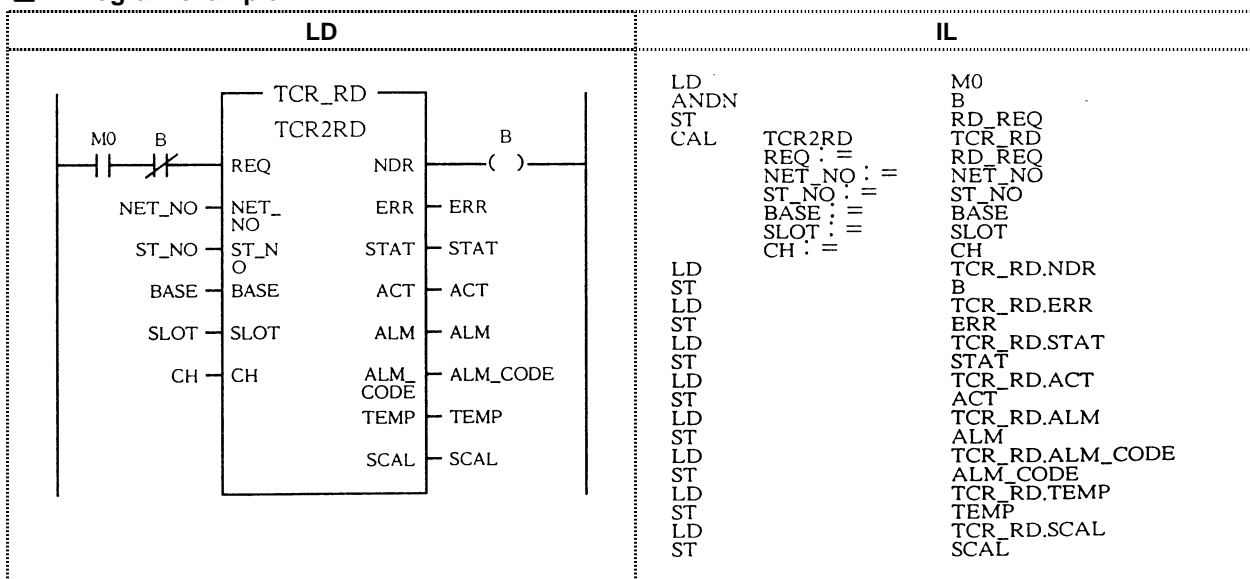
Function block	Description
	<p>Input</p> <ul style="list-style-type: none"> REQ : Function block execution request at rising edge NET_NO : Slot location number(0~7) installed the communication module of local station(G4L-FUEA, G4L-FUOA) to send the function block ST_NO : Station number(0~63) of communication module(G4L-RBEA, G4L-RBOA) installed at remote I/O station BASE : G4F-TC2A module installation base location number SLOT : Slot location number of G4F-TC2A module installation base Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting. <p>Output</p> <ul style="list-style-type: none"> NDR : On if the function block is executed without error and Off at next SCAN ERR : On when the error occurs during executing the function block. STAT : Error status display during the function block execution. Note 1) ACT : Channel display that read the conversion value after completing the function block. The element value of the channel will be '1'. Note 1) ALM : Error mark display of each channel during operation. The element value of the channel will be '1'. Note 1) ALM_CODE : Error status display of each channel during operation. Note 1) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value. Note 1) SCAL : Convert the temperature change value to the scaling of 0~16000 range.

[] : Indicate ARRAY variable and number in the parenthesis is the element number.

Function

Read the operation status of each channel and temperature change value that G4F-TC2A module installed at remote station outputs during operation.

Program example



TCR4INI

G3F-TC4A Module initialization(For remote)

Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description																								
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>NET_NO: Slot location number(0~7) installed the communication module of local station(G3L-FUEA, G3L-FUOA) to send the function block</p> <p>ST_NO : Station number(0~63) of communication module(G3L-RBEA, G3L-RBOA) installed at remote I/O station</p> <p>BASE : G3F-TC4A module installation base location number</p> <p>SLOT : Slot location number of G3F-TC4A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Note 1) TYPE : Assign the sensor type of each channel.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Input allocation</th> <th>Sensor type</th> <th>Temperature range</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>K</td> <td>-200.0~1200.0℃</td> </tr> <tr> <td>1</td> <td>J</td> <td>-200.0~800.0℃</td> </tr> <tr> <td>2</td> <td>E</td> <td>-150.0~600.0℃</td> </tr> <tr> <td>3</td> <td>T</td> <td>-200.0~400.0℃</td> </tr> <tr> <td>4</td> <td>B</td> <td>400.0~1800.0℃</td> </tr> <tr> <td>5</td> <td>R</td> <td>0.0~1750.0℃</td> </tr> <tr> <td>6</td> <td>S</td> <td>0.0~1750.0℃</td> </tr> </tbody> </table> <p>Output</p> <p>NDR : On if the function block is executed without error and Off at next SCAN</p> <p>ERR : On when the error occurs during executing the function block.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that read the conversion value after completing the function block. The element value of the channel will be '1'.</p>	Input allocation	Sensor type	Temperature range	0	K	-200.0~1200.0℃	1	J	-200.0~800.0℃	2	E	-150.0~600.0℃	3	T	-200.0~400.0℃	4	B	400.0~1800.0℃	5	R	0.0~1750.0℃	6	S	0.0~1750.0℃
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<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>																									

■ Function

Set the preset value for each channel and arrange the operation to operate G3F-TC4A module installed at remote station.

■ Program example

LD	IL
	<pre> LDN M0 AND A ST INI_REQ CAL TCR4INI REQ := INI_REQ NET_NO := NET_NO ST_NO := ST_NO BASE := BASE SLOT := SLOT CH := CH TYPE := TYPE LD TCR_INI.NDR S M0 LD TCR_INI.ERR ST ERR LD TCR_INI.STAT ST STAT LD TCR_INI.ACT ST ACT </pre>

TCR4RD

G3F-TC4A Temperature change value reading(Remote type)

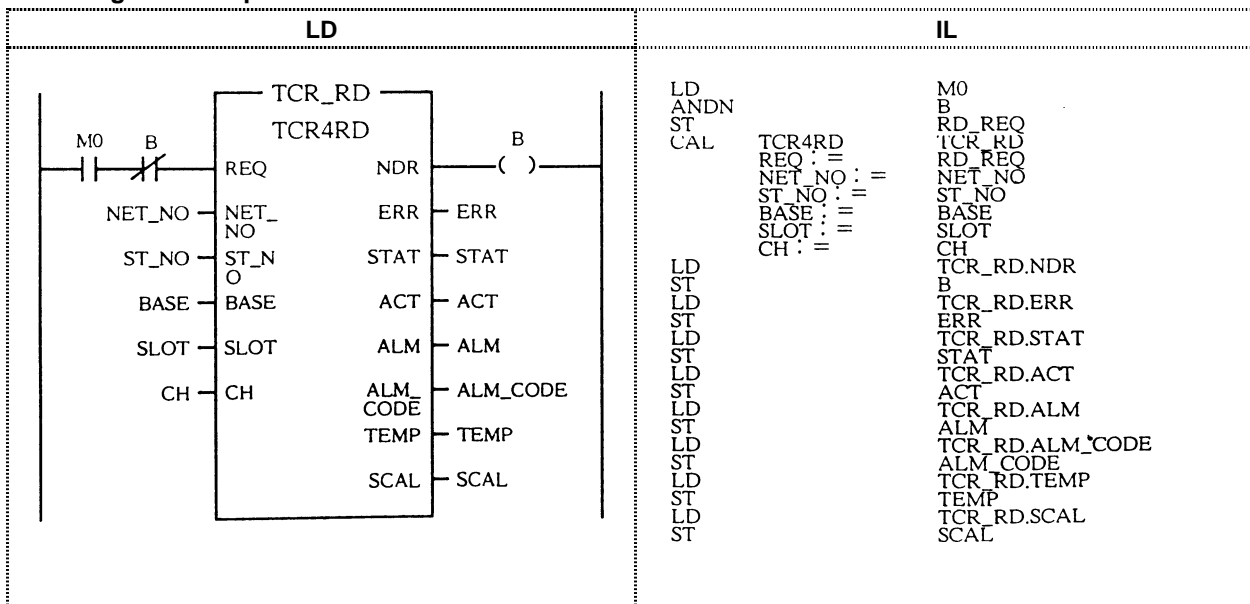
Product	GM1	GM2	GM3	GM4	GM5
Applicable	●	●	●		

Function block	Description
	<p>Input</p> <p>REQ : Function block execution request at rising edge</p> <p>NET_NO: Slot location number(0~7) installed the communication module of local station(G3L-FUEA, G3L-FUOA) to send the function block</p> <p>ST_NO: Station number(0~63) of communication module(G3L-RBEA, G3L-RBOA) installed at remote I/O station</p> <p>BASE : G3F-TC4A module installation base location number</p> <p>SLOT : Slot location number of G3F-TC4A module installation base</p> <p>Note 1) CH : Assign the channel to be used. Set '1' for respective element value for channel setting.</p> <p>Output</p> <p>NDR : On if the function block is executed without error and Off at next SCAN</p> <p>ERR : On when the error occurs during executing the function block.</p> <p>STAT : Error status display during the function block execution.</p> <p>Note 1) ACT : Channel display that read the conversion value after completing the function block. The element value of the channel will be '1'.</p> <p>Note 1) ALM : Error mark display of each channel during operation. The element value of the channel will be '1'.</p> <p>Note 1) ALM_CODE: Error status display of each channel during operation.</p> <p>Note 1) TEMP : Temperature change value. Read 10 times of actual temperature for each channel's conversion value.</p> <p>Note 1) SCAL : Convert the temperature change value to the scaling of 0~16000 range.</p>
<p>[] : Indicate ARRAY variable and number in the parenthesis is the element number.</p>	

Function

Read the operation status and temperature change value of each channel that G3F-TC4A module installed at remote station outputs during operation.

Program example



List(GM3/GM4) of Analog module function block status(STAT) and Alarm_code(ALM_CODE)(GM3/GM4)

Stat No.	Type	Description	Product name								Remark
			GM3 Series	G3F-AD4A	G3F-DA4I G3F-DA4V	G3F-TC4A	G3F-RD3A	G3F-PIDA	G3F-AT4A	G3F-HSCA	
			GM4 Series	G3F-AD2A	G4F-DA1A	G4F-TC2A	G4F-RD2A	G4F-PIDA	G4F-AT3A	G4F-HSCA	
0	Local	Normal operation	○	○	○	○	○	○	○	○	
1		Base position number exceeds the preset range.	○	○	○	○	○	○	○	○	
2		H/W error of respective base	○	○	○	○	○	○	○	○	
3		Slot position number exceeds the preset range.	○	○	○	○	○	○	○	○	
4		Respective slot is not installed.	○	○	○	○	○	○	○	○	
5		Name of respective module is different.	○	○	○	○	○	○	○	○	
6		Channel number exceeds the preset range.	○	○	○	○	○	○	○	○	
7		H/W error of respective module	○	○	○	○	○	○	○	○	
8		Common RAM error of respective module	○	○	○	○	○		○		
9		No assignment of the channel at initialization function block	○	○	○	○	○		○		*1
		Test Mode	◎	○	-	-	-	○	-	-	
10		Excessive input sensor range	-	-	○	○	-	-	-	-	
		Excessive input preset value	-	-	-	-	○	-	○		
		Excessive filter value preset range	○	-	-	-	-	-	-		
16		A disconnection	-	-	-	○	-	-	-		
		Burn_Out	-	-	○	-	-	-	-		
17		Excessive average number/time value preset range	○	-	-	-	-	-	-		
		B disconnection	-	-	-	○	-	-	-		
		Excessive upper/lower range	-	-	○	-	-	-	-		
18		C disconnection	-	-	-	○	-	-	-		
19		Excessive upper/lower range	-	-	-	○	-	-	-		
128	Remote	H/W error of remote communication module	-	-	-	-	-	-	-	-	
129		Base position number exceeds the preset range.	○	○	○	○	-	-	-		
131		Slot position number exceeds the preset range.	○	○	○	○	-	-	-		
133		Name of respective module is different.	○	○	○	○	-	-	-		
134		Channel number exceeds the preset range.	○	○	○	○	-	-	-		
135		H/W error of respective module	○	○	○	○				-	
136		Common RAM error of respective module	○	○	○	○				○	
137		No assignment of the channel at initialization function block	○	○	○	○				○	
		Test Mode	-	○	-	-				○	
138		Excessive input sensor range	-	-	○	○				○	
		Excessive input preset value	-	-	-	-				○	
		Excessive filter value preset range	○	-	-	-				-	
144		A disconnection	-	-	-	○		*2	*2	-	
		Burn_Out	-	-	○	-				○	
145		Excessive average number/time value preset range	○	-	-	-				-	
		B disconnection	-	-	-	○				-	
		Excessive upper/lower range	-	-	○	-				-	
146		C disconnection	-	-	-	○				-	
147		Excessive upper/lower range	-	-	-	○				-	

○ : Error, - : No error, ◎ : Only for G4F-AD2A

*1 : The error occurs in all function block excluding initialization function block.

*2 : G3F-PIDA, G4F-PIDA, G3F-AT4A and G4F-AT3A modules are not used in the remote station.

List(GM5) of Analog module function block status(STAT) and Alarm_code(ALM_CODE)(GM5)

Stat No.	Description	Product name					Remark
		G5F-AD2A	G5F-DA1A	G5F-TC2A	G5F-RD2A	G5F-HSCA	
0	Normal operation	○	○	○	○	○	
3	Module position number exceeds the preset range.	○	○	○	○	○	
4	Respective module is not installed.	○	○	○	○	○	
5	Name of respective module is different.	○	○	○	○	○	
6	Channel number exceeds the preset range.	○	○	○	○	○	
7	H/W error of respective module	○	○	○	○	○	
8	Common RAM error of respective module	○	○	○	○	○	
9	No assignment of the channel at initialization function block	○	○	○	○	○	*1
10	Test Mode	○	○	—	—	—	
	Excessive input sensor range	—	—	○	○	—	
	Excessive input preset value	—	—	—	—	○	
16	Excessive filter value preset range		—	—	—	—	
	A disconnection	—	—	—	○	—	
	Burn_Out	—	—	○	—	—	
17	Excessive average number/time value preset range	○	—	—	—	—	
	B disconnection	—	—	—	○	—	
	Excessive upper/lower range	—	—	○	—	—	
18	C disconnection	—	—	—	○	—	
19	Excessive upper/lower range	—	—	—	○	—	

*1 : The error occurs in all function block excluding initialization function block.

Error number list of position module function block

Error No.	Description	Product name				Remark
		G3F-POPA	G3F-POAA	G4F-POPA	G5F-POPA	
0	Normal operation	○	○	○	○	
1	Base position number exceeds the valid range	○	○	○	—	
2	H/W error. of respective base	○	○	○	—	
3	Slot location number exceeds the valid range	○	○	○	○	
4	Respective slot is not installed	○	○	○	○	
5	Name of respective module is different	○	○	○	○	
6	Axis value exceeds the valid range	○	○	○	—	
7	Instruction request when CPU module is at STOP	○	○	○	○	
8	Common RAM error	○	○	○	○	
9	When the function block instruction can not be executed due to operation/stop of module	○	○	○	○	
10	When new instruction of function block is requested before completing previous instruction	○	○	○	○	
11	Sub input value exceeds the valid range	○	○	○	○	
13	When stop or emergence stop instruction is input during executing the function block	○	○	○	○	
14	When NM or OR instruction is input at no uniform speed district under automatic operation	○	○	○	○	
15	When the instruction is input without determination of zero point of module(Teaching)	○	○	○	○	
17	H/W error	○	○	○	○	
18	Watchdog Timer error	○	○	○	○	
19	Interface error to CPU module	○	○	○	○	
20	When external emergency is input	○	○	○	○	
21	When internal emergency is input	○	○	○	○	
22	When external H/W lower limit switch is input	○	○	○	○	
23	When external H/W upper limit switch is input	○	○	○	○	
24	When current position exceeds S/W lower limit address range preset at parameter	○	○	○	○	
25	When current position exceeds S/W upper limit address range preset at parameter	○	○	○	○	
26	When the number except operation mode unique number is set	○	○	○	○	
27	When position data address exceeds the tolerance range	○	○	○	○	
28	When Dwell Time value exceed the tolerance range(0~999)	○	○	○	○	
36	When the operation mode is wrong at automatic or continuous operation	○	○	○	○	
37	When interpolation instruction is input at continuous, uniform speed, position control uniform speed operation mode	○	○	○	○	
38	When ration operation is unable at the operation mode except single or repeat operation	—	○	—	—	
39	When simultaneous operation or interpolation operation is instructed at Y axis	—	○	—	—	

Error No.	Description	Product name				Remark
		G3F-POPA	G3F-POAA	G4F-POPA	G5F-POPA	
46	When stop instruction is input at constant, constant with positioning mode	○	○	○	○	
47	When stop instruction is input at zero point return	○	○	○	○	
48	When speed decrease stop instruction is input during executing JOG or RTP operation	○	○	○	○	
49	When speed decrease stop instruction is input during executing Dwell or zero point compensation	○	○	○	—	
56	When NM, OR, speed change instruction is input during the operation except static speed district	○	○	○	—	
57	When NM, OR instruction is input at constant, constant with positioning mode When change speed instruction is input at continuous, constant, constant with positioning mode	○	○	○	○	
58	When NM instruction is input at operation mode except continuous operation mode	○	○	○	○	
59	When OR, NM instruction is input, except positioning start instruction	○	○	○	○	
60	When OR is set to disable though OR instruction is input	○	○	○	—	
61	When NM instruction is input at next operate direction is change	○	○	○	○	
66	When position data is not input for next operation When data number exceed the range at position teaching and speed teaching instruction	○	○	○	○	
67	When OR percentage value exceeds the tolerance range 1~15(X10%).	○	○	○	○	
68	When inposition value exceeds the tolerance range (-999~+999) When inching value exceeds the tolerance range(1~99)	○	○	○	○	
69	When position address set by Preset instruction exceeds upper/lower limit range	○	○	○	○	
76	When operation instruction is input without determination of the zero point and absolute data type	○	○	○	○	
77	When position teaching instruction is input without determination of the zero point	○	○	○	○	
86	When the speed exceeds the range(When it is larger than maximum speed or less than Bias speed or set to '0')	○	○	○	○	
87	When zero point return low-speed is larger than high-speed and less than bias speed	○	○	○	○	
88	When short-axis speed calculated at linear interpolation mode exceeds the tolerance range	○	○	○	○	
89	When static time or speed decrease time exceeds the tolerance range(Max 65,535ms)	○	○	○	○	
96	When the instruction is input at output prohibit status	○	○	○	○	
97	When the instruction is input during busy	○	○	○	○	
98	When CPU module approaches to zero point at STOP status or positioning start, interpolation instruction is input	○	○	○	○	
106	When parameter data are wrong	○	○	○	○	
107	When data conversion result exceeds the range	○	○	○	○	

115	When the ditlereutial counter exceeds torlerance range	○	○	○	○	
117	When the operation is unable since operation speed is larger than speed decrease/increase tilt	○	○	○	○	
119	When the positioning start instruction is input witout number change at position data set to end	○	○	○	○	
126	Synchronization operation mode error	-	○	-	-	
127	Prefix number setting error	-	○	-	-	
130	When calculated speed value is 0 at interpolation mode	X	○	X	X	
136	Trouble at SLAVE axis	-	○	-	-	
137	485 communication error	-	○	-	-	
138	When synchronization axis is wrong	-	○	-	-	
146	When radius setting exceeds the range at circular interpolation operation	-	○	-	-	