

# Chapter 4. DEDICATED INSTRUCTIONS FOR SPECIAL MODULES

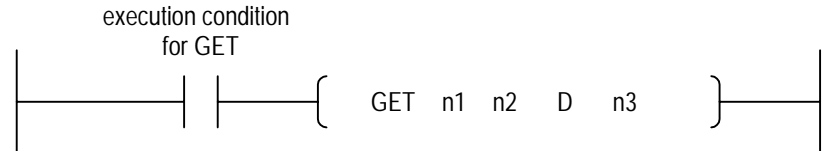
## (Read from /Write to Buffer Memory)

I/O points of the RTD input module are 16.

### 4.1 Local


#### 4.1.1 Read from Buffer Memory . . . GET, GETP

<Format>



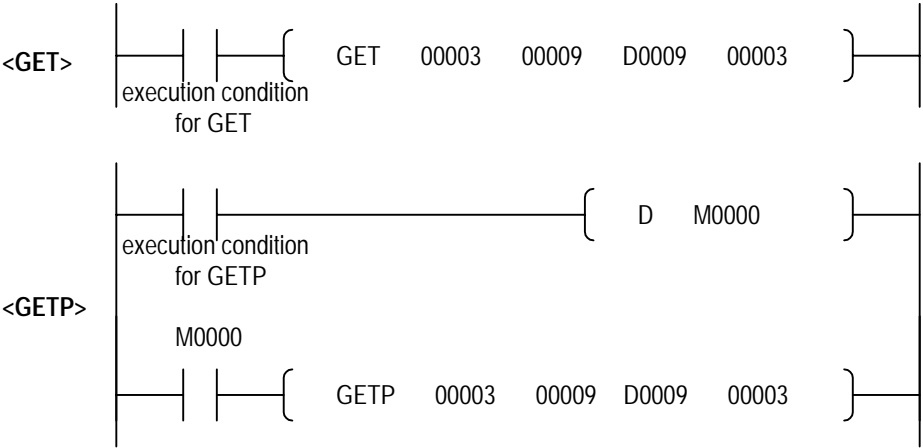
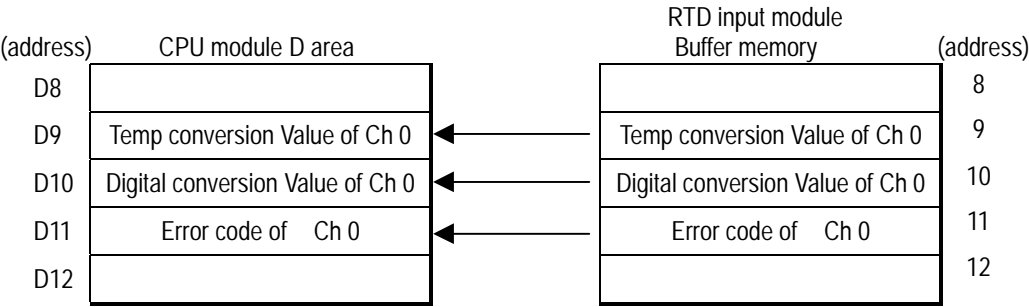
Format	Descriptions	Available Data Type
n1	The number of the slot where the special modules mounted	Integer
n2	First address of the special module buffer memory from which the data will be read.	Integer
D	First address of the device to store the data read.	M,P,K,L,T,C,D,#D
n3	Word number of data to be read .	Integer

#### <The difference between GET and GETP>

GET: always executed if the execution condition turns On.(  )

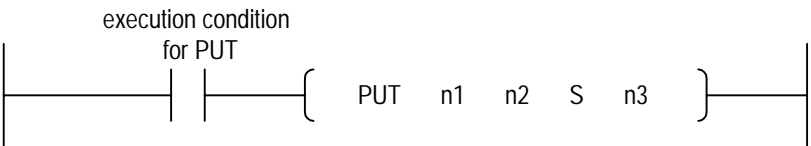
GETP: executed if the execution condition is triggered. (  )

Example 1). In this example, the RTD input module is loaded on the slot 3 in the base unit and the data of the buffer memory addresses 9, 10 and 11 will be read to the CPU module addresses D9, D10 and D11.




4.1.2 Write to Buffer Memory . . . PUT, PUTP

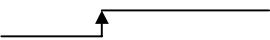
<Format>



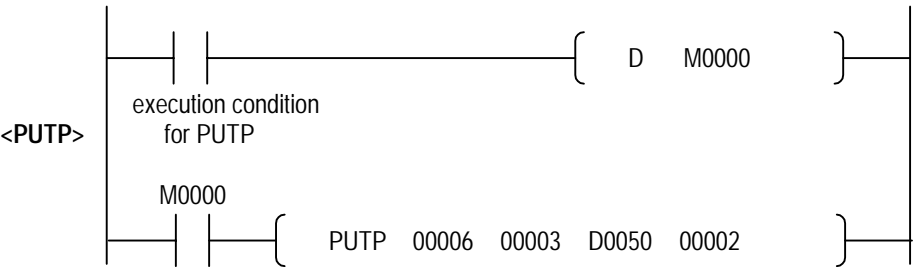
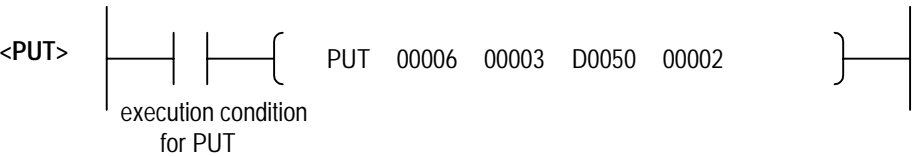
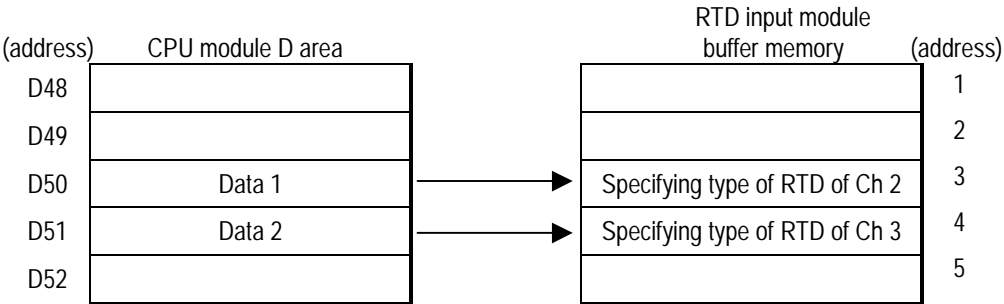
Format	Descriptions	Available Data Type
n1	The number of the slot where the specific module mounted	Integer
n2	First address of the specific module buffer memory to which the data will be written..	Integer
S	First address of the device where the data to be written has been stored, or an integer	M,P,K,L,T,C,D,#D
n3	Word number of data to be written .	Integer

<The difference between PUT and PUTP>

PUT: always executed if the execution condition turns On. . (  )

PUTP : executed if the execution condition is triggered. . (  )

Example 1) In this example, the RTD input module is loaded on the slot 6 in the base unit and the data of CPU module addresses D50 and D51 will be written to the buffer memory addresses 3 and 4.



4.2 Remote

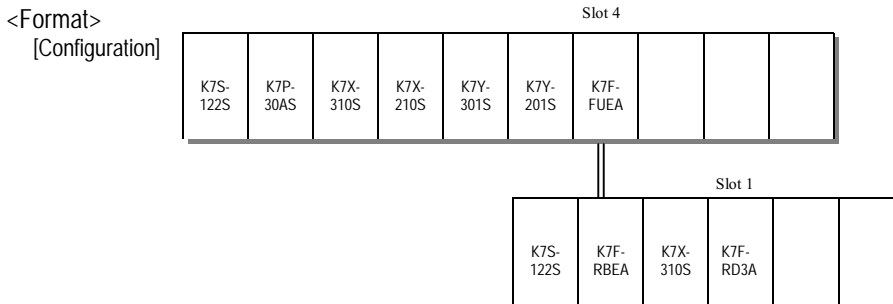
4.2.1 Read from Buffer Memory ---RGET



Format	Descriptions		Available data type
SI	<div>AB CD Upper (8bit) Lower (8bit)</div>	Higher(AB) : Code value for RTD input module K7F - RD3A : 04h K4F - RD2A : 84h Lower(CD) : Slot No. of the communications module of the local station(FUEA) Setting range : 0 to 7	Integer
St	<div>EF GH Upper (8bit) Lower (8bit)</div>	Higher(EF) : Slot No. of the RTD Input module loaded onto the remote station Setting range : 0 to 31 Lower(GH) : Station No. of the communications module loaded onto the remote station(RBEA) Setting range : 0 to 63	Integer
D	First address of the device to store the data read.		M,P,K,L,T,C,D, #D
S	First address of the specific module's buffer memory to read data		Integer
n	Word number of data to be read		Integer, D
SS	Area used for indicating the status information during link		M,P,K,L,T,C,D, #D

REMARK

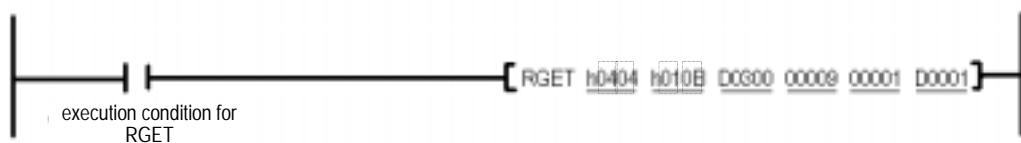
If the content is read from the buffer memory of the temperature - measuring input module by use of RGET, be sure to make the program so that execution condition can transit from 0 to 1(Rising Edge :  $\nearrow$ )  
Otherwise, The content in the buffer memory of the temperature - measuring input module is unreadable.



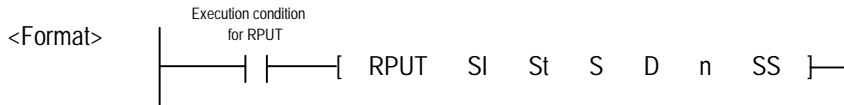
[Read from buffer memory]

- 1) The content in the buffer memory address 9(one word) is read, where the detected temperature value of the channel 0 of the RTD input module had been stored.
- 2) The data read is stored to D300
- 3) Information on the communications status is stored to D1

[Program]




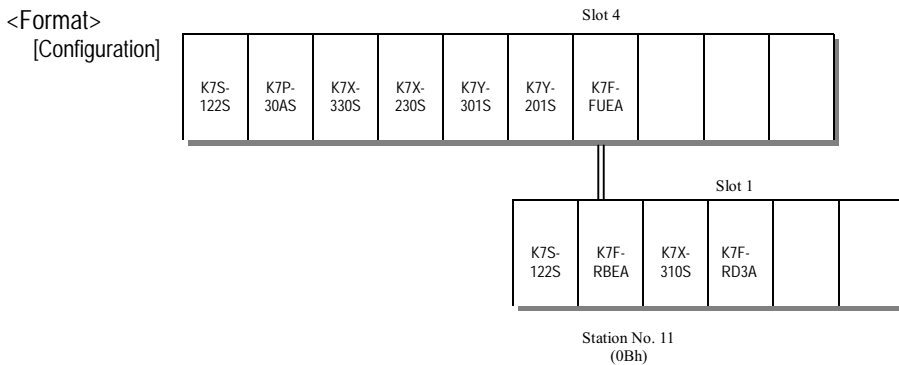
#### 4.2.2 Write to Buffer Memory ---RPUT



Format	Description		Available data type
SI		Upper(AB) : Code value for RTD input module K7F - RD3A : 04h K4F - RD2A : 84h Lower(CD) : Slot No. of the communications module of the local station Setting range : 0 to 7	Integer
St	<div> <div>EF</div> <div>GH</div> <div>Upper (8bit)</div> <div>Lower (8bit)</div> </div>	Upper(EF) : Slot No. of the RTD Input module loaded onto the remote station Setting range : 0 to 31 Lower(GH) : Station No. of the communications module loaded onto the remote station(RBEA) Setting range : 0 to 63	Integer
S	Head address of the device to be stored the data write.		M,P,K,L,T,C,D, #D
D	Head address of the specific module's buffer memory to write data		Integer
n	Word number of data to be write		Integer, D
SS	Area used for indicating the status information during link		M,P,K,L,T,C,D, #D

#### REMARK

If the content is write to the buffer memory of the RTD input module by use of RPUT, be sure to make the program so that execution condition can transit from 0 to 1(Rising Edge :  )  
Otherwise, The content in the buffer memory of the RTD input module will not be changed with a new data.



[Write to buffer memory]

- 1) The content in the D100 to D108(9 words) of the devices in the CPU module
- 2) Will be written to addresses 0 to 8 of the buffer memory of the RTD input module, and
- 3) Information on the communication status is stored to D0

[program]

