

In order to achieve maximum performance and ensure proper operation of your new instrument, carefully read all the instructions in the manual. Please place this manual in a convenient location for easy reference.

This manual describes the communication data only.

For detailed handling procedures and functions, refer to separate **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**. The manual can be downloaded from the official RKC website: http://www.rkcinst.com/english/manual_load.htm.

1. REMOTE INPUT/OUTPUT

Remote input (RX) and remote output (RY) is ON/OFF data.

"n" in the table is the address assigned to the master station by the station number setting. It can be calculated by the following equation. However, the computing equation is when a network is configured only by using our COM-JCs and the number of all exclusive stations/extended cyclic are at the same setting.

Number of Occupied stations/Extended cyclic setting	Equation
1 station occupied 1 time	$n = (\text{Station number} * - 1) \times 2$
4 stations occupied 1 time	$n = (\text{Station number} * - 1) \times 4$
4 stations occupied 2 times	$n = (\text{Station number} * - 1) \times 3.2$
4 stations occupied 4 times	$n = (\text{Station number} * - 1) \times 7$

* Station number when there is one occupied station: 1 to 64 (each number can be set)
Station number when there are four occupied stations: 1 to 61
(four stations are occupied for each station number, and thus only numbers that are increments of four can be set: 1, 5, 9...61)

As the calculation result is expressed in decimal number it is converted to hexadecimal number before substituted for "n" in the table.

Example: When the COM-JC is set to 4 stations occupied 1 time and its station number is "5."

$$n = (5 - 1) \times 2 = 8 \text{ (Decimal number)} \rightarrow 8 \text{ (Hexadecimal number)}$$

For station number 5: Remote inputs RXn0 to RX (n+7) F → RX80 to RXFF
Remote outputs RYn0 to RY (n+7) F → RY80 to RYFF

1.1 1 Station Occupied 1 Time

Remote input list

Data direction: COM-JC (Remote device station) → Master station (PLC)
Data capacity: 32-bit

Address	Communication item	Data range	Factory set value
RXn0	Event 1 state	0: OFF	—
RXn1	Event 2 state	1: ON	—
RXn2	Burnout state	—	—
RXn3	Heater break alarm (HBA) state	—	—
RXn4	PID/AT transfer	0: PID control 1: Autotuning (AT)	—
RXn5	Event 1 state	Same as CH1	—
RXn6	Event 2 state	—	—
RXn7	Burnout state	—	—
RXn8	Heater break alarm (HBA) state	—	—
RXn9	PID/AT transfer	—	—
RXnA	Unused	—	—
RXnB	Unused	—	—
RXnC	Extended display completion	0: OFF	—
RXnD	Extended setting completion	1: ON	—
RXnE	Unused	—	—
RXnF	Hardware error flag	0: OFF 1: ON When COM-JC self-diagnostic error occurred except for communication error, turned ON.	—
RX(n+1)0	Reserved	—	—
RX(n+1)7	Reserved	—	—
RX(n+1)8	Initialize data processing request flag	0: OFF	—
RX(n+1)9	Initialize data setting completion flag	1: ON	—
RX(n+1)A	Error status flag	0: OFF 1: ON When communication error occurred, turned ON.	—
RX(n+1)B	Remote ready	0: Not ready state 1: Ready state	—
RX(n+1)C	Reserved	—	—
RX(n+1)F	Reserved	—	—

Remote output list

Data direction: Master station (PLC) → COM-JC (Remote device station)
Data capacity: 32-bit

Address	Communication item	Data range	Factory set value
RYn0	Bit 0	Extension number for display Display extension number are specified by the ON/OFF states of RYn0 to RYn5. Data 0: OFF 1: ON [Decimal number: 0 to 63]	0
RYn1	Bit 1		
RYn2	Bit 2		
RYn3	Bit 3		
RYn4	Bit 4		
RYn5	Bit 5	Extension number for setting Setting extension number are specified by the ON/OFF states of RYn6 to RYnB. Data 0: OFF 1: ON [Decimal number: 0 to 63]	0
RYn6	Bit 6		
RYn7	Bit 7		
RYn8	Bit 8		
RYn9	Bit 9		
RYnA	Bit 10	Extended display flag	0
RYnB	Bit 11		
RYnC	Extended display flag	0: OFF	0
RYnD	Extended setting flag (Setting update flag)	1: ON	0

Address	Communication item	Data range	Factory set value
RYnE	Unused	—	—
RYnF	RUN/STOP transfer	COM-JC-02-1 0: RUN 1: STOP COM-JC-02-2 0: STOP 1: RUN	0
RY(n+1)0	Reserved	—	—
RY(n+1)7	Reserved	—	—
RY(n+1)8	Initialize data processing completion flag	0: OFF	0
RY(n+1)9	Initialize data setting request flag	1: ON	0
RY(n+1)A	Error reset request flag	—	0
RY(n+1)B	Reserved	—	—
RY(n+1)F	Reserved	—	—

1.2 4 Stations Occupied 1 Time

Remote input list

Data direction: COM-JC (Remote device station) → Master station (PLC)
Data capacity: 128-bit

Address	Communication item	Data range	Factory set value
RXn0	Event 1 state	0: OFF	—
RXn1	Event 2 state	1: ON	—
RXn2	Burnout state	—	—
RXn3	Heater break alarm (HBA) state	—	—
RXn4	PID/AT transfer	0: PID control 1: Autotuning (AT)	—
RXn5	Event 1 state	Same as CH1	—
RXn6	Event 2 state	—	—
RXn7	Burnout state	—	—
RXn8	Heater break alarm (HBA) state	—	—
RXn9	PID/AT transfer	—	—
RXnA	Unused	—	—
RXnB	Unused	—	—
RXnC	Extended display completion	0: OFF	—
RXnD	Extended setting completion	1: ON	—
RXnE	Unused	—	—
RXnF	Hardware error flag	0: OFF 1: ON When COM-JC self-diagnostic error occurred except for communication error, turned ON.	—
RX(n+1)0	Reserved	—	—
RX(n+1)F	Reserved	—	—
RX(n+2)0	Event 1 state	Same as CH1	—
RX(n+2)1	Event 2 state	—	—
RX(n+2)2	Burnout state	—	—
RX(n+2)3	Heater break alarm (HBA) state	—	—
RX(n+2)4	PID/AT transfer	—	—
RX(n+2)5	Event 1 state	Same as CH1	—
RX(n+2)6	Event 2 state	—	—
RX(n+2)7	Burnout state	—	—
RX(n+2)8	Heater break alarm (HBA) state	—	—
RX(n+2)9	PID/AT transfer	—	—
RX(n+2)A	Event 1 state	Same as CH1	—
RX(n+2)B	Event 2 state	—	—
RX(n+2)C	Burnout state	—	—
RX(n+2)D	Heater break alarm (HBA) state	—	—
RX(n+2)E	PID/AT transfer	—	—
RX(n+2)F	Event 1 state	Same as CH1	—
RX(n+3)0	Event 2 state	—	—
RX(n+3)1	Burnout state	—	—
RX(n+3)2	Heater break alarm (HBA) state	—	—
RX(n+3)3	PID/AT transfer	—	—
RX(n+3)4	Event 1 state	Same as CH1	—
RX(n+3)5	Event 2 state	—	—
RX(n+3)6	Burnout state	—	—
RX(n+3)7	Heater break alarm (HBA) state	—	—
RX(n+3)8	PID/AT transfer	—	—
RX(n+3)9	Event 1 state	Same as CH1	—
RX(n+3)A	Event 2 state	—	—
RX(n+3)B	Burnout state	—	—
RX(n+3)C	Heater break alarm (HBA) state	—	—
RX(n+3)D	PID/AT transfer	—	—
RX(n+3)E	Unused	—	—
RX(n+3)F	Event 1 state	Same as CH1	—
RX(n+4)0	Event 2 state	—	—
RX(n+4)1	Burnout state	—	—
RX(n+4)2	Heater break alarm (HBA) state	—	—
RX(n+4)3	PID/AT transfer	—	—
RX(n+4)4	Event 1 state	Same as CH1	—
RX(n+4)5	Event 2 state	—	—
RX(n+4)6	Burnout state	—	—
RX(n+4)7	Heater break alarm (HBA) state	—	—
RX(n+4)8	PID/AT transfer	—	—
RX(n+4)9	Event 1 state	Same as CH1	—
RX(n+4)A	Event 2 state	—	—
RX(n+4)B	Burnout state	—	—
RX(n+4)C	Heater break alarm (HBA) state	—	—
RX(n+4)D	PID/AT transfer	—	—
RX(n+4)E	Event 1 state	Same as CH1	—
RX(n+4)F	Event 2 state	—	—
RX(n+5)0	Burnout state	—	—
RX(n+5)1	Heater break alarm (HBA) state	—	—
RX(n+5)2	PID/AT transfer	—	—
RX(n+5)3	Event 1 state	Same as CH1	—
RX(n+5)4	Event 2 state	—	—
RX(n+5)5	Burnout state	—	—
RX(n+5)6	Heater break alarm (HBA) state	—	—
RX(n+5)7	PID/AT transfer	—	—
RX(n+5)8	Event 1 state	Same as CH1	—
RX(n+5)9	Event 2 state	—	—
RX(n+5)A	Burnout state	—	—
RX(n+5)B	Heater break alarm (HBA) state	—	—
RX(n+5)C	PID/AT transfer	—	—
RX(n+5)D	Event 1 state	Same as CH1	—
RX(n+5)E	Event 2 state	—	—
RX(n+5)F	Unused	—	—

Address	Communication item	Data range	Factory set value
RX(n+6)0	Event 1 state	Same as CH1	—
RX(n+6)1	Event 2 state	—	—
RX(n+6)2	Burnout state	—	—
RX(n+6)3	Heater break alarm (HBA) state	—	—
RX(n+6)4	PID/AT transfer	—	—
RX(n+6)5	Event 1 state	Same as CH1	—
RX(n+6)6	Event 2 state	—	—
RX(n+6)7	Burnout state	—	—
RX(n+6)8	Heater break alarm (HBA) state	—	—
RX(n+6)9	PID/AT transfer	—	—
RX(n+6)A	Unused	—	—
RX(n+6)F	Reserved	—	—
RX(n+7)0	Reserved	—	—
RX(n+7)7	Reserved	—	—
RX(n+7)8	Initialize data processing request flag	0: OFF	—
RX(n+7)9	Initialize data setting completion flag	1: ON	—
RX(n+7)A	Error status flag	0: OFF 1: ON When communication error occurred, turned ON.	—
RX(n+7)B	Remote ready	0: Not ready state 1: Ready state	—
RX(n+7)C	Reserved	—	—
RX(n+7)F	Reserved	—	—

Remote output list

Data direction: Master station (PLC) → COM-JC (Remote device station)
Data capacity: 128-bit

Address	Communication item	Data range	Factory set value		
RYn0	Bit 0	Extension number for display Display extension number are specified by the ON/OFF states of RYn0 to RYn5 and RY(n+1)0 to RY(n+1)2. Data 0: OFF 1: ON [Decimal number: 0 to 511]	0		
RYn1	Bit 1				
RYn2	Bit 2				
RYn3	Bit 3				
RYn4	Bit 4				
RYn5	Bit 5	Extension number for setting Setting extension number are specified by the ON/OFF states of RYn6 to RYnB and RY(n+1)8 to RY(n+1)A. Data 0: OFF 1: ON [Decimal number: 0 to 511]	0		
RYn6	Bit 6				
RYn7	Bit 7				
RYn8	Bit 8				
RYn9	Bit 9				
RYnA	Bit 10	Extended display flag	0		
RYnB	Bit 11				
RYnC	Extended display flag	0: OFF	0		
RYnD	Extended setting flag (Setting update flag)	1: ON	0		
RYnE	Unused	—	—		
RYnF	RUN/STOP transfer	COM-JC-02-1 0: RUN 1: STOP COM-JC-02-2 0: STOP 1: RUN	0		
RY(n+1)0	Bit 6	Extension number for display Display extension number are specified by the ON/OFF states of RYn0 to RYn5 and RY(n+1)0 to RY(n+1)2. Data 0: OFF 1: ON [Decimal number: 0 to 511]	0		
RY(n+1)1	Bit 7				
RY(n+1)2	Bit 8				
RY(n+1)3	Bit 9				
RY(n+1)4	Bit 10				
RY(n+1)5	Bit 11	Extension number for setting Setting extension number are specified by the ON/OFF states of RYn6 to RYnB and RY(n+1)8 to RY(n+1)A. Data 0: OFF 1: ON [Decimal number: 0 to 511]	0		
RY(n+1)6	Bit 12				
RY(n+1)7	Bit 13				
RY(n+1)8	Bit 6				
RY(n+1)9	Bit 7				
RY(n+1)A	Bit 8	Area number for display Display area number are specified by the ON/OFF states of RY(n+2)0 to RY(n+2)3. Data 0: OFF 1: ON [Decimal number: 0 to 16]	0		
RY(n+1)B	Bit 9				
RY(n+1)C	Bit 10				
RY(n+1)D	Bit 11				
RY(n+1)E	Bit 12				
RY(n+1)F	Bit 13	Area number for setting Setting area number are specified by the ON/OFF states of RY(n+2)8 to RY(n+2)B. Data 0: OFF 1: ON [Decimal number: 0 to 16]	0		
RY(n+2)0	Bit 0				
RY(n+2)1	Bit 1				
RY(n+2)2	Bit 2				
RY(n+2)3	Bit 3				
RY(n+2)4	Bit 4	Area number for display Display area number are specified by the ON/OFF states of RY(n+2)0 to RY(n+2)3. Data 0: OFF 1: ON [Decimal number: 0 to 16]	0		
RY(n+2)5	Bit 5				
RY(n+2)6	Bit 6				
RY(n+2)7	Bit 7				
RY(n+2)8	Bit 8				
RY(n+2)9	Bit 9	Area number for setting Setting area number are specified by the ON/OFF states of RY(n+2)8 to RY(n+2)B. Data 0: OFF 1: ON [Decimal number: 0 to 16]	0		
RY(n+2)A	Bit 10				
RY(n+2)B	Bit 11				
RY(n+2)C	Bit 12				
RY(n+2)D	Bit 13				
RY(n+2)E	Bit 6	Area number for display Display area number are specified by the ON/OFF states of RY(n+2)0 to RY(n+2)3. Data 0: OFF 1: ON [Decimal number: 0 to 16]	0		
RY(n+2)F	Bit 7				
RX(n+3)0	Unused			—	—
RX(n+6)F	Reserved			—	—
RY(n+7)0	Reserved			—	—
RY(n+7)7	Reserved	—	—		
RY(n+7)8	Initialize data processing completion flag	0: OFF	0		
RY(n+7)9	Initialize data setting request flag	1: ON	0		
RY(n+7)A	Error reset request flag	—	0		
RY(n+7)B	Reserved	—	—		
RY(n+7)F	Reserved	—	—		

For remote input/output address of 4 stations occupied 2 times and 4 stations occupied 4 times, refer to **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**.

2. REMOTE REGISTER

Remote registers (RWr, RWw) is numeric data.

"n" in the table is the address assigned to the master station by the station number setting. It can be calculated by the following equation. However, the computing equation is when a network is configured only by using our COM-JCs and the number of all Occupied stations/Extended cyclic are at the same setting.

Number of Occupied stations/Extended cyclic setting	Equation
1 station occupied 1 time	$n = (\text{Station number} * - 1) \times 4$
4 stations occupied 1 time	$n = (\text{Station number} * - 1) \times 4$
4 stations occupied 2 times	$n = (\text{Station number} * - 1) \times 8$
4 stations occupied 4 times	$n = (\text{Station number} * - 1) \times 16$

* Station number when there is one occupied station: 1 to 64 (each number can be set)
Station number when there are four occupied stations: 1 to 61
(four stations are occupied for each station number, and thus only numbers that are increments of four can be set: 1, 5, 9...61)

As the calculation result is expressed in decimal number it is converted to hexadecimal number before substituted for "n" in the table.

Example: When the COM-JC is set to 4 stations occupied 1 time and its station number is "5."

$$n = (5 - 1) \times 4 = 16 \text{ (Decimal)} \rightarrow 10 \text{ (Hexadecimal)}$$

For station number 5:
Remote registers RWr to RWr+F → RWr10 to RWr1F
RWw to RWw+F → RWw10 to RWw1F

Data direction of remote registers (RWr, RWw)
R

Address	Communication items	Data range	Factory set value
RWwn+4	CH5 Set value (SV)	Setting limiter low to	0
RWwn+5	CH6 Set value (SV)	Setting limiter high	0
RWwn+6	CH7 Set value (SV)		0
RWwn+7	CH8 Set value (SV)		0
RWwn+8	CH1 For extended area setting	Data corresponding to the extension number specified by setting the setting extension number from RYn6 to RYnB and from RY(n+1) to RY(n+1)A.	
RWwn+9	CH2 For extended area setting		
RWwn+A	CH3 For extended area setting		
RWwn+B	CH4 For extended area setting		
RWwn+C	CH5 For extended area setting		
RWwn+D	CH6 For extended area setting		
RWwn+E	CH7 For extended area setting		
RWwn+F	CH8 For extended area setting		

2.4 4 Stations Occupied 1 Time (16 Channels Assignment)

Remote register (RWw) list

Data capacity: 16 words

Address	Communication items	Data range	Factory set value
RWw	CH1 For extended area display	Data corresponding to the extension number specified by setting the display extension number from RYn0 to RYn5 and from RY(n+1) to RY(n+1)2.	
RWw+1	CH2 For extended area display		
RWw+2	CH3 For extended area display		
RWw+3	CH4 For extended area display		
RWw+4	CH5 For extended area display		
RWw+5	CH6 For extended area display		
RWw+6	CH7 For extended area display		
RWw+7	CH8 For extended area display		
RWw+8	CH9 For extended area display		
RWw+9	CH10 For extended area display		
RWw+A	CH11 For extended area display		
RWw+B	CH12 For extended area display		
RWw+C	CH13 For extended area display		
RWw+D	CH14 For extended area display		
RWw+E	CH15 For extended area display		
RWw+F	CH16 For extended area display		

Remote register (RWw) list

Data capacity: 16 words

Address	Communication items	Data range	Factory set value
RWwn	CH1 For extended area setting	Data corresponding to the extension number specified by setting the setting extension number from RYn6 to RYnB and from RY(n+1) to RY(n+1)A.	
RWwn+1	CH2 For extended area setting		
RWwn+2	CH3 For extended area setting		
RWwn+3	CH4 For extended area setting		
RWwn+4	CH5 For extended area setting		
RWwn+5	CH6 For extended area setting		
RWwn+6	CH7 For extended area setting		
RWwn+7	CH8 For extended area setting		
RWwn+8	CH9 For extended area setting		
RWwn+9	CH10 For extended area setting		
RWwn+A	CH11 For extended area setting		
RWwn+B	CH12 For extended area setting		
RWwn+C	CH13 For extended area setting		
RWwn+D	CH14 For extended area setting		
RWwn+E	CH15 For extended area setting		
RWwn+F	CH16 For extended area setting		

For remote input/output address of 4 stations occupied 2 times and 4 stations occupied 4 times, refer to **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**.

3. SETTING OF EXTENSION NUMBER

Communication items which are handled in the extension areas of the remote registers (RWw and RWw) are specified by the extension number. If the necessary data is selected from a list of extension numbers and that extension number is set by remote output, the data can be handled in the remote registers (RWw and RWw).

When read data

Setting of extension number for display

Extension number for display sets it with remote output "RYn0 to RYn5, RY(n+1)0 to RY(n+1)2."

Bit image

RY(n+1)2	RY(n+1)1	RY(n+1)0	RYn5	RYn4	RYn3	RYn2	RYn1	RYn0
Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0

Bit data: 0: OFF 1: ON [Decimal number: 0 to 511]

When write data

Setting of extension number for setting

Extension number for setting sets it with remote output "RYn6 to RYnB, RY(n+1)8 to RY(n+1)A."

Bit image

RY(n+1)A	RY(n+1)9	RY(n+1)8	RYnB	RYnA	RYn9	RYn8	RYn7	RYn6
Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0

Bit data: 0: OFF 1: ON [Decimal number: 0 to 511]

Example: When setting the setting extension number to the set value (SV), "3."

Number of Occupied stations/Extended cyclic setting: 4 stations occupied 1 time

Extension number 3:

Bit 8	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	0	0	0	0	0	0	1	1

For extension number of memory area, refer to **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**.

4. EXTENSION NUMBER LIST

Attribute	RO: Read only data	[COM-JC (Remote device station) → Master station (PLC)]
	RW: Read and write data	[COM-JC (Remote device station) ↔ Master station (PLC)]

Correspondence module and occupation CH:

Module types corresponding to each communication item and number of occupied channels per module

★: Data related multi-memory area function

★: When Heat/Cool PID control or position proportioning PID control is performed, the 2nd channel and 4th channel of Z-TIO module are invalid communication data. [Read is possible (0 is shown), but the result of Write is disregarded.]

Extension number	Communication items	Attribute	Data range	Correspondence module and occupation CH	Factory set value
0	Measured value (PV)	RO	Input scale low to Input scale high	Z-TIO: 4	—
1	Manipulated output value (MV) monitor [heat-side] ★	RO	PID control or Heat/Cool PID control: -5.0 to +105.0 % Position proportioning PID control (with FBR input): 0.0 to 100.0 %	Z-TIO: 4	—
2	Current transformer (CT) input value monitor	RO	0.0 to 30.0 A (CTL-6-P-N) 0.0 to 100.0 A (CTL-12-S56-10L-N)	Z-TIO: 4	—
3	Set value (SV) ★	RW	Setting limiter low to Setting limiter high	Z-TIO: 4	TC/RTD: 0 °C [°F] V/I: 0.0
4	PID/AT transfer ¹	RW	0: PID control 1: Autotuning (AT)	Z-TIO: 4	0
5	Proportional band [heat-side] ★★	RW	TC/RTD inputs: 0 (0.0) to Input span ² (Unit: °C [°F]) Voltage (V)/Current (I) inputs: 0.0 to 1000.0 % of Input span (0.0: ON/OFF action)	Z-TIO: 4	TC/RTD: 30 V/I: 30.0
6	Integral time [heat-side] ★★	RW	PID control or Heat/Cool PID control: 0 to 3600 seconds or 0.0 to 1999.9 seconds ³ (0.0: PD action) Position proportioning PID control: 1 to 3600 seconds or 0.1 to 1999.9 seconds ³	Z-TIO: 4	240
7	Derivative time [heat-side] ★★	RW	0 to 3600 seconds or 0.0 to 1999.9 seconds ³ (0.0: PI action)	Z-TIO: 4	60
8	PV bias	RW	-Input span to +Input span ²	Z-TIO: 4	0
9	Event 1 set value ★	RW	Deviation action, Deviation action between channels, Temperature rise completion range ² : -Input span to +Input span ² Process action, SV action: Input scale low to Input scale high ² Manipulated output value (MV): -5.0 to +105.0 % * When temperature rise completion is selected at Event 3 action type.	Z-TIO: 4	50
10	Event 2 set value ★	RW	Input scale low to Input scale high ² Manipulated output value (MV): -5.0 to +105.0 % * When temperature rise completion is selected at Event 3 action type.	Z-TIO: 4	50
11 to 15	Reserved	—	—	—	—
16	Unused	—	—	—	—
17	RUN/STOP transfer	RW	COM-JC*02-1 0: RUN 1: STOP COM-JC*02-2 0: STOP 1: RUN	Z-TIO: 1 Z-DIO: 1	0
18	Proportional cycle time	RW	0.1 to 100.0 seconds M: Relay contact V: Voltage pulse T: Triac D: Open collector	Z-TIO: 4	M: 20.0 V, T, D: 2.0
19	Auto/Manual transfer	RW	0: Auto mode 1: Manual mode	Z-TIO: 4	0
20	Manual manipulated output value ★	RW	PID control, Position proportioning PID control (with FBR input): Output limiter low to Output limiter high Heat/Cool PID control: -Output limiter high [cool-side] to +Output limiter high [heat-side] Position proportioning PID control (without FBR input): 0: Close-side output OFF, Open-side output OFF 1: Close-side output ON, Open-side output OFF 2: Close-side output OFF, Open-side output ON	Z-TIO: 4	0.0
21, 22	Data of Engineering mode ⁴	—	—	—	—
23	PV digital filter	RW	0.0 to 100.0 seconds (0.0: Unused)	Z-TIO: 4	0
24	Heater break alarm (HBA) set value	RW	0.0 to 30.0 A (CTL-6-P-N) 0.0 to 100.0 A (CTL-12-S56-10L-N) (0.0: Unused)	Z-TIO: 4	0.0
25	Data of Engineering mode ⁴	—	—	—	—
26	Manipulated output value (MV) monitor [cool-side] ★	RO	-5.0 to +105.0 %	Z-TIO: 4	—
27	Proportional band [cool-side] ★★	RW	TC/RTD inputs: 1 (0.1) to Input span ² (Unit: °C [°F]) Voltage (V)/Current (I) inputs: 0.1 to 1000.0 % of Input span	Z-TIO: 4	TC/RTD: 30 V/I: 30.0
28	Unused	—	—	—	—
29	Overlap/Deadband ★★	RW	TC/RTD inputs: -Input span to +Input span ² (Unit: °C [°F]) Voltage (V)/Current (I) inputs: -100.0 to +100.0 % of Input span Minus (-) setting results in overlap.	Z-TIO: 4	0
30	Operation mode	RW	0: Unused 1: Monitor 2: Monitor + Event function 3: Control	Z-TIO: 4	3
31	Set value monitor	RO	Setting limiter low to Setting limiter high	Z-TIO: 4	—
32	Error code	RO	Bit data Bit 0: Adjustment data error Bit 1: Data back-up error Bit 2: A/D conversion error Bit 3 and Bit 4: Unused Bit 5: Logic output data error Bit 6 to Bit 15: Unused Data 0: OFF 1: ON [Decimal number: 0 to 63]	Z-TIO: 1 Z-DIO: 1	—
33	Memory area transfer	RW	1 to 8	Z-TIO: 4	1

¹ For the operation, refer to the "3. CC-Link Flag Operation" of the **COM-JC [For SRZ] Quick Instruction Manual (IMR01Y26-ED)**.

² Varies with the setting of the decimal point position selection.

³ Varies with the setting of the Integral/Derivative time decimal point position selection.

⁴ For the data, refer to the **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**.

Extension number	Communication items	Attribute	Data range	Correspondence module and occupation CH	Factory set value
34	Control response parameter ★★	RW	0: Slow 1: Medium 2: Fast [P or PD action: 2 (Fast) fixed]	Z-TIO: 4	PID control Position proportioning PID control: 0 Heat/Cool PID control: 2
35	Unused	—	—	—	—
36	Data of Engineering mode ¹	—	—	—	—
37	Setting change rate limiter (up) ★	RW	0 (0.0) to Input span ² /unit time * 0 (0.0): Unused * Unit time: 60 seconds (Factory set value)	Z-TIO: 4	0 (0.0)
38 to 44	Data of Engineering mode ¹	—	—	—	—
45	Unused	—	—	—	—
46, 47	Data of Engineering mode ¹	—	—	—	—
48, 49	Unused	—	—	—	—
50	Control loop break alarm (LBA) time ★	RW	0 to 7200 seconds (0: Unused)	Z-TIO: 4	480
51	LBA deadband ★	RW	0 (0.0) to Input span ²	Z-TIO: 4	0 (0.0)
52, 53	Unused	—	—	—	—
54	Event 3 set value ★	—	Same as event 1 set value	Z-TIO: 4	50
55	Event 4 set value ★	—	Same as event 1 set value	Z-TIO: 4	50
56 to 61	Data of Engineering mode ¹	—	—	—	—
62	Setting change rate limiter (down) ★	RW	0 (0.0) to Input span ² /unit time * 0 (0.0): Unused * Unit time: 60 seconds (Factory set value)	Z-TIO: 4	0 (0.0)
63	Comprehensive event state	RO	Bit data Bit 0: Event 1 Bit 1: Event 2 Bit 2: Event 3 Bit 3: Event 4 Bit 4: Heater break alarm (HBA) state Bit 5: Temperature rise completion Bit 6: Burnout Bit 7 to Bit 15: Unused Data 0: OFF 1: ON [Decimal number: 0 to 127]	Z-TIO: 4	—
64	Remote setting (RS) input value monitor	RO	Setting limiter low to Setting limiter high	Z-TIO: 4	—
65 to 67	Unused	—	—	—	—
68	Memory area soak time monitor	RO	0 to 11999 seconds or 0 to 5999 minutes Data range is different by soak time unit.	Z-TIO: 4	—
69	Digital input (DI) state monitor	RO	Bit data Bit 0: DI 1 Bit 5: DI 6 Bit 1: DI 2 Bit 6: DI 7 Bit 2: DI 3 Bit 7: DI 8 Bit 3: DI 4 Bit 8 to Bit 15: Unused Bit 4: DI 5 Data 0: Open 1: Closed [Decimal number: 0 to 255]	Z-DIO: 1	—
70	Operation mode state monitor	RO	Bit data Bit 0: Control STOP Bit 1: Control RUN Bit 2: Manual mode Bit 3: Remote mode Bit 4 to Bit 15: Unused Data 0: OFF 1: ON [Decimal number: 0 to 15]	Z-TIO: 4	—
71, 72	Unused	—	—	—	—
73	Digital output (DO) state	RO	Bit data Bit 0: DO 1 Bit 5: DO 6 Bit 1: DO 2 Bit 6: DO 7 Bit 2: DO 3 Bit 7: DO 8 Bit 3: DO 4 Bit 8 to Bit 15: Unused Bit 4: DO 5 Data 0: Open 1: Closed [Decimal number: 0 to 255]	Z-DIO: 1	—
74	Output state monitor	RO	Bit data Bit 0: OUT1 Bit 3: OUT4 Bit 1: OUT2 Bit 4 to Bit 15: Unused Bit 2: OUT3 Data 0: OFF 1: ON [Decimal number: 0 to 15]	Z-TIO: 1	—
75 to 89	Unused	—	—	—	—
90	Remote/Local transfer	RW	0: Local mode 1: Remote mode	Z-TIO: 4	0
91	Unused	—	—	—	—
92	Interlock release	RW	0: Normal state 1: Interlock release execution	Z-TIO: 4	0
93	Communication switch for logic	RW	Bit data Bit 0: Communication switch 1 Bit 1: Communication switch 2 Bit 2: Communication switch 3 Bit 3: Communication switch 4 Bit 4 to Bit 15: Unused Data 0: OFF 1: ON [Decimal number: 0 to 15]	Z-TIO: 1	0
94	DO manual output	RW	Bit data Bit 0: DO1 manual output Bit 1: DO2 manual output Bit 2: DO3 manual output Bit 3: DO4 manual output Bit 4: DO5 manual output Bit 5: DO6 manual output Bit 6: DO7 manual output Bit 7: DO8 manual output Bit 8 to Bit 15: Unused Data 0: OFF 1: ON [Decimal number: 0 to 255]	Z-DIO: 1	0
95 to 109	Unused	—	—	—	—
110	Link area number ★	RW	0 to 8 (0: No link)	Z-TIO: 4	0
111	Area soak time ★	RW	0 to 11999 seconds or 0 to 5999 minutes Data range of Area soak time can be selected on the Soak time unit	Z-TIO: 4	0
112	Integral time [cool-side] ★★	RW	0 to 3600 seconds or 0.0 to 1999.9 seconds ³ (0.0: PD action)	Z-TIO: 4	240

¹ For the data, refer to the **COM-JC [For SRZ] Instruction Manual (IMR01Y34-ED)**.

² Varies with the setting of the decimal point position selection.

³ Varies with the setting of the Integral/Derivative time decimal point position selection.

Extension number	Communication items	Attribute	Data range	Correspondence module and occupation CH	Factory set value
113	Derivative time [cool-side] ★★	RW	0 to 3600 seconds or 0.0 to 1999.9 seconds ³ (0.0: PI action)	Z-TIO: 4	60
114 to 127	Unused	—	—	—	—
128	Manual reset ★	RW	-100.0 to +100.0 %	Z-TIO: 4	0.0
129	Area soak time stop function	RW	0: No function 1: Event 1 2: Event 2 3: Event 3 4: Event 4	Z-TIO: 4	0
130	Minimum ON/OFF time of proportioning cycle	RW	0 to 1000 ms	Z-TIO: 4	0
131	DO minimum ON/OFF time of proportional cycle	RW	0 to 1000 ms	Z-DIO: 8	0
132	DO proportional cycle time	RW	0.1 to 100.0 seconds M: Relay contact output D: Open collector output	Z-DIO: 8	M: 20.0 D: 2.0
133 to 139	Unused	—	—	—	—
140	Heater break determination point	RW	0.0 to 100.0 % of HBA set value (0.0: Heater break determination is invalid)	Z-TIO: 4	30.0
141	Heater melting determination point	RW	0.0 to 100.0 % of HBA set value (0.0: Heater melting determination is invalid)	Z-TIO: 4	30.0
142	PV ratio	RW	0.500 to 1.500	Z-TIO: 4	1.000
143	PV low input cut-off	RW	0.00 to 25.00 % of Input span	Z-TIO: 4	0.00
144, 145	Unused	—	—	—	—
146	Backup memory state monitor	RO	0: The content of the backup memory does not coincide with that of the RAM. 1: The content of the backup memory coincides with that of the RAM.	Z-TIO: 1 Z-DIO: 1	—
147	Logic output monitor	RO	Bit data Bit 0: Logic output 1 Bit 5: Logic output 6 Bit 1: Logic output 2 Bit 6: Logic output 7 Bit 2: Logic output 3 Bit 7: Logic output 8 Bit 3: Logic output 4 Bit 8 to Bit 15: Unused Bit 4: Logic output 5 Data 0: OFF 1: ON [Decimal number: 0 to 255]	Z-TIO: 1	—
148	RS bias	RW	-Input span to +Input span ²	Z-TIO: 4	0
149	RS digital filter	RW	0.0 to 100.0 seconds (0.0: Unused)	Z-TIO: 4	0.0
150	RS ratio	RW	0.001 to 9.999	Z-TIO: 4	1.000
151 to 153	Unused	—	—	—	—
154	Output distribution selection	RW	0: Control output		