

5.3 Reading command

(1) Reading for Main setting value

Command code: RS (52H, 53H)

STX (02H)	No.	R	S	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	S	Sign	Main setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the main setting value. (Instrument number: 0)

STX (02H)		R	S	3	B	ETX (03H)
	(20H)	(52H)	(53H)	(33H)	(42H)	

● Response examples

When the main setting value is 120°C.

STX (02H)	@	D	S		0	1	2	0	4	6	ETX (03H)
	(40H)	(44H)	(53H)	(20H)	(30H)	(31H)	(32H)	(30H)	(34H)	(36H)	

└──────────────────────────────────┘
120°C

When the main setting value is -100.0°C.

STX (02H)	@	D	S	-	1	0	0	0	3	B	ETX (03H)
	(40H)	(44H)	(53H)	(2DH)	(31H)	(30H)	(30H)	(30H)	(33H)	(42H)	

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-100.0°C

(2) Reading for Temperature alarm [A1] setting value

Command code: R A (52H, 41H)

STX (02H)	No.	R	A	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	A	Sign	Temperature alarm [A1] setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Temperature alarm [A1] setting value. (Instrument number: 0)

STX (02H)	(20H)	R (52H)	A (41H)	4 (34H)	D (44H)	ETX (03H)
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● Response examples

When the Temperature alarm [A1] setting value is 10°C.

STX (02H)	@ (40H)	D (44H)	A (41H)	0 (20H)	0 (30H)	1 (30H)	0 (31H)	0 (30H)	5 (35H)	A (41H)	ETX (03H)
10°C											

When the Temperature alarm [A1] setting value is -10.0°C.

STX (02H)	@ (40H)	D (44H)	A (41H)	- (2DH)	0 (30H)	1 (31H)	0 (30H)	0 (30H)	4 (34H)	D (44H)	ETX (03H)
-10.0°C											

(3) Reading for Temperature alarm [A2] setting value
 (This item is not available to the MCD-150 series and MCD-550 series.)

Command code: R a (52H, 61H)

STX (02H)	No.	R	a	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	a	Sign	Temperature alarm [A2] setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Temperature alarm [A2] setting value. (Instrument number: 0)

STX (02H)	(20H)	R (52H)	a (61H)	2 (32H)	D (44H)	ETX (03H)
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● Response examples

When the Temperature alarm [A2] setting value is -5°C .

STX (02H)	@ (40H)	D (44H)	a (61H)	- (2DH)	0 (30H)	0 (30H)	0 (30H)	5 (35H)	2 (32H)	9 (39H)	ETX (03H)

When the Temperature alarm [A2] setting value is 10°C .

STX (02H)	@ (40H)	D (44H)	a (61H)	(20H)	0 (30H)	0 (30H)	1 (31H)	0 (30H)	3 (33H)	A (41H)	ETX (03H)

(4) Reading for Proportional band setting value

Command code: R P (52H, 50H)

STX (02H)	No.	R	P	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	P	Sign	Proportional band setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Proportional band setting value. (Instrument number: 0)

STX (02H)	(20H)	R (52H)	P (50H)	3 (33H)	E (45H)	ETX (03H)
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● Response example

When the Proportional band setting value is 2.5%.

STX (02H)	@ (40H)	D (44H)	P (50H)		0 (20H)	0 (30H)	2 (32H)	5 (35H)	4 (34H)	5 (35H)	ETX (03H)
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2.5%

(5) Reading for Integral time setting value

Command code: R I (52H, 49H)

STX (02H)	No.	R	I	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	I	Sign	Integral time setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Integral time setting value. (Instrument number: 0)

STX (02H)	(20H)	R (52H)	I (49H)	4 (34H)	5 (35H)	ETX (03H)
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● Response example

When the Integral time setting value is 200 seconds.

STX (02H)	@ (40H)	D (44H)	I (49H)	(20H)	0 (30H)	2 (32H)	0 (30H)	0 (30H)	5 (35H)	1 (31H)	ETX (03H)
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200 seconds

(6) Reading for Derivative time setting value

Command code: R D (52H, 44H)

STX (02H)	No.	R	D	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	D	Sign	Derivative time setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Derivative time setting value. (Instrument number: 0)

STX (02H)		R (52H)	D (44H)	4 (34H)	A (41H)	ETX (03H)
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● Response example

When the Derivative time setting value is 50 seconds.

STX (02H)	@ (40H)	D (44H)	D (44H)		0 (30H)	0 (30H)	5 (35H)	0 (30H)	5 (35H)	3 (33H)	ETX (03H)
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50 seconds

(7) Reading for Anti-reset windup setting value

Command code: RW (52H, 57H)

STX (02H)	No.	R	W	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	W	Sign	Anti-reset windup setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

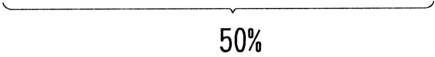
When reading the Anti-reset windup setting value. (Instrument number: 0)

STX (02H)		R (52H)	W (57H)	3 (33H)	7 (37H)	ETX (03H)
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● Response example

When the Anti-reset windup setting value is 50%.

STX (02H)	@ (40H)	D (44H)	W (57H)		0 (30H)	0 (30H)	5 (35H)	0 (30H)	4 (34H)	0 (30H)	ETX (03H)
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(8) Reading for Heater burnout alarm setting value

(This item is not available to the MCD-150, MCD-550, MCR-100 and MCR-200 series.)

Command code: R H (52H, 48H)

STX (02H)	No.	R	H	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	H	Sign	Heater burnout alarm setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Heater burnout alarm setting value. (Instrument number: 0)

STX (02H)	(20H)	R (52H)	H (48H)	4 (34H)	6 (36H)	ETX (03H)
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● Response example

When the Heater burnout alarm setting value is 50%.

STX (02H)	@ (40H)	D (44H)	H (48H)	0 (20H)	0 (30H)	5 (30H)	0 (35H)	0 (30H)	4 (34H)	F (46H)	ETX (03H)
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50%

(9) Reading for Manual operation output setting value

Command code: RM (52H, 4DH)

STX (02H)	No.	R	M	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	M	Sign	Manual operation output setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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● Command example

When reading the Manual operation output setting value. (Instrument number: 0)

STX (02H)		R	M	4	1	ETX (03H)
	(20H)	(52H)	(4DH)	(34H)	(31H)	

● Response example

When the Manual operation output setting value is 80%.

STX	@	D	M		0	0	8	0	4	7	ETX
(02H)	(40H)	(44H)	(4DH)	(20H)	(30H)	(30H)	(38H)	(30H)	(34H)	(37H)	(03H)

80%

- (10) Reading for Main control output proportional cycle setting value
(This item is not available to the MCD-150 and MCD-550 series.)

Command code: R C (52H, 43H)

STX (02H)	No.	R	C	Checksum	ETX (03H)
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Response with data

STX (02H)	@	D	C	Sign	Main control output proportional cycle setting value	Checksum	ETX (03H)
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Negative acknowledgement (When the communication is abnormally performed.)

NAK	(15H)
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- Command example

When reading the Main control output proportional cycle setting value.
(Instrument number: 0)

STX (02H)	(20H)	R (52H)	C (43H)	4 (34H)	B (42H)	ETX (03H)
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- Response example

When the Main control output proportional cycle setting value is 15 seconds.

STX (02H)	@ (40H)	D (44H)	C (43H)	(20H)	0 (30H)	0 (30H)	1 (31H)	5 (35H)	5 (35H)	3 (33H)	ETX (03H)
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15 seconds