

This Manual Change describes the note for the connecting the BT200 and the communication line requirements for BRAIN communication models.

Please use this Manual Change for the Instruction Manuals listed below.

Applicable Instruction Manuals and Models

Document Number (Edition Number)	Product Model
IM 01C20B01-01E (9)	EJ110, EJ120, EJ130
IM 01C20C01-01E (9)	EJ210, EJ220
IM 01C20D01-01E (9)	EJ310, EJ430, EJ440
IM 01C20H01-01E (9)	EJ118W, EJ118N, EJ118Y
IM 01C20J01-01E (9)	EJ318W, EJ318N, EJ438W, EJ438N
IM 01C20K01-01E (10)	EJ115, EJ135
IM 01C21B01-01E (11)	EJA110A, EJA120A, EJA130A
IM 01C21C01-01E (11)	EJA210A, EJA220A
IM 01C21D01-01E (11)	EJA310A, EJA430A, EJA440A
IM 01C21F01-01E (8)	EJA510A, EJA530A
IM 01C22A01-01E (2)	EJA Series (Installation Manual)
IM 01C23B01-01E (6)	EJB110
IM 01C23D01-01E (6)	EJB430
IM 01C23H01-01E (6)	EJB118W, EJB118N, EJB118Y
IM 01C23J01-01E (6)	EJB438W, EJB438N
IM 01C23K01-01E (7)	EJB115
IM 01C50T03-01E (5)	YTA Series for BRAIN protocol

• Note for Connecting the BT200



IMPORTANT

- Analog output may change temporally in connecting with BRAIN terminal due to an initial current flowed to it. To prevent communication signal affecting the upper system, it is recommended to install a low-pass filter (approximately 0.1s).
- Communication signal is superimposed on analog output signal. It is recommended to set a low-pass filter (approximately 0.1s) to the receiver in order to reduce the output effect from communication signal. Before online-communication, confirm that communication signal does not give effect on the upper system.

• Communication Line Requirements

[Protocol specification] Yokogawa original protocol

[Modulation] Burst modulation

0: 2400Hz

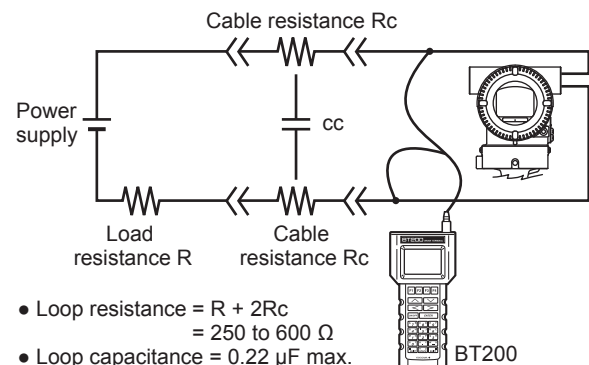
1: Signal without carrier

[Baud rate] 1200bps

[Communication signal]

host to device: +/- 0.5V (load resistance 250Ω)

device to host: +/- 2mA



- Loop resistance = $R + 2Rc$
= 250 to 600 Ω
- Loop capacitance = 0.22 μF max.

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Figure Communication Line Requirements

Please use this manual change for the manuals listed below.

1. Applicable manuals, revised item, revised contents

DOC No.	Edition	Page	Revised Items	Revised Contents
IM 01C50B01-01E	16th	7-1 7-3 7-4	Input signal Table 7.1 Input Type, Measurement Range and Accuracy Table 7.3 YTA310, YTA320 Effect of Ambient Temperature	Delete Ni120.
IM 01C50G01-01EN	1st	3-4 7-4	Table 3.4 Parameter List (HART) Table 7.1 Sensor type, measurement range, and accuracy	Delete Ni120.
IM 01C50T01-01E	5th	3-5 3-15	Figure Table 3.2	Delete Ni120.
IM 01C50T01-02EN	1st	3-11	Figure 3.1 Wire connection and sensor type	Delete Ni120.
IM 01C50T02-01E	9th	5-12 5-14 9-3 9-4	SENSOR_TYPE_1(2) Table 5.16 Recommended Input Levels for Calibration Table 9.1 Accuracy Table 9.2 Ambient Temperature Effect	Delete Ni120.
IM 01C50T01-02EN	1st	6-2 6-3 6-4	SENSOR_TYPE_1(2) Figure 6.2 Wire connection and sensor type Table 6.1 Sensor type and measurement range	Delete Ni120.
IM 01C50T03-01E	5th	3-4 3-5 3-13 5-1 5-2	Sensor type selection Figure 3.1 Input terminal wire connection diagram and sensor type categories Setting display Table 3.1 Zero and Gain point value for Sensor trim 5. LIST OF PARAMETERS SENSOR1 TYPE 5. LIST OF PARAMETERS SENSOR2 TYPE	Delete Ni120.

2. Note

Please do not use Ni120 sensor.