User's Manual

JUXTA D Series
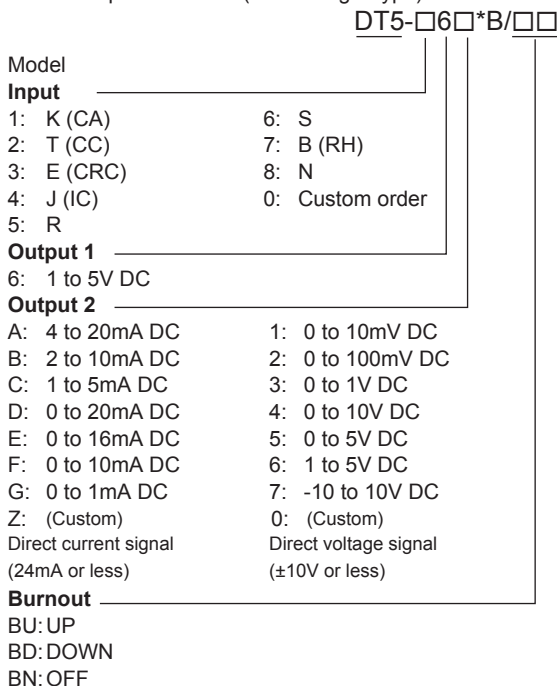User's Manual
Notice of Alterations

JUXTA

IM JD100-01E-S01

Thank you for purchasing JUXTA D Series, Signal Conditioners.
This supplement is to update the contents of the JUXTA D Series User's Manual (IM JD100-01E).
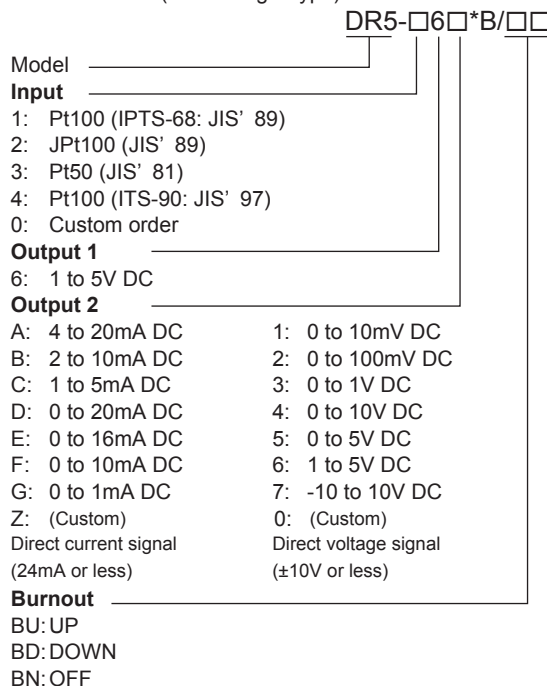Please make the following alterations to the original manual.

Page 3-1 Section 3.3.1 "TYPE AND SPECIFICATION CODE"
DT5 and DR5 have been replaced with the following:

Themocouple Converter (Free Range Type)

DT5-□6□*B/□□

Model
Input

1: K (CA)	6: S
2: T (CC)	7: B (RH)
3: E (CRC)	8: N
4: J (IC)	0: Custom order
5: R	

Output 1
6: 1 to 5V DC
Output 2

A: 4 to 20mA DC	1: 0 to 10mV DC
B: 2 to 10mA DC	2: 0 to 100mV DC
C: 1 to 5mA DC	3: 0 to 1V DC
D: 0 to 20mA DC	4: 0 to 10V DC
E: 0 to 16mA DC	5: 0 to 5V DC
F: 0 to 10mA DC	6: 1 to 5V DC
G: 0 to 1mA DC	7: -10 to 10V DC
Z: (Custom)	0: (Custom)
Direct current signal	Direct voltage signal
(24mA or less)	(±10V or less)

Burnout
BU: UP
BD: DOWN
BN: OFF

RTD Converter (Free Range Type)

DR5-□6□*B/□□

Model
Input

1: Pt100 (IPTS-68: JIS' 89)
2: JPt100 (JIS' 89)
3: Pt50 (JIS' 81)
4: Pt100 (ITS-90: JIS' 97)
0: Custom order

Output 1
6: 1 to 5V DC
Output 2

A: 4 to 20mA DC	1: 0 to 10mV DC
B: 2 to 10mA DC	2: 0 to 100mV DC
C: 1 to 5mA DC	3: 0 to 1V DC
D: 0 to 20mA DC	4: 0 to 10V DC
E: 0 to 16mA DC	5: 0 to 5V DC
F: 0 to 10mA DC	6: 1 to 5V DC
G: 0 to 1mA DC	7: -10 to 10V DC
Z: (Custom)	0: (Custom)
Direct current signal	Direct voltage signal
(24mA or less)	(±10V or less)

Burnout
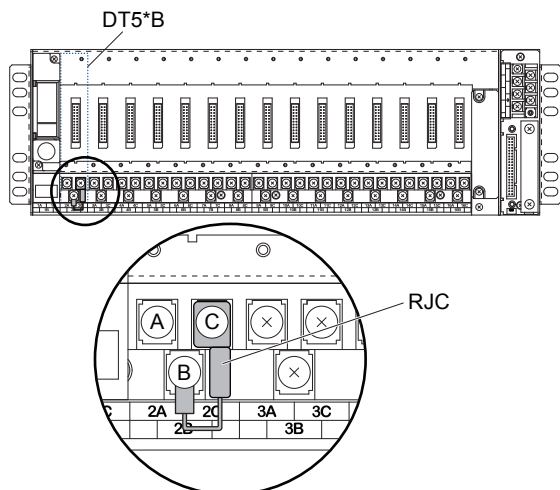BU: UP
BD: DOWN
BN: OFF

Page 6-6 Section 6.3 "WIRING AND PIPING OF FIELD SIDE I/O TERMINAL • SIGNAL CONDITIONER'S FRONT TERMINAL AND WIRING OF SYSTEM SIDE CABLE"
Add the following contents: 6.3.1, 6.3.2, 6.3.3

6.3.1 Connecting the RJC sensor (DT5 Thermocouple Converter)

Connect the RJC side to the input terminal Ⓒ of the nest and the other side to the input terminal Ⓑ as shown below.

⚠ **NOTE**

- *Connect the RJC sensor of the converter together with the input signal line so that the pressure terminal of the input signal line overlaps the RJC sensor.*
- *Handle the RJC sensor lead wire with care to prevent disconnection.*
- *The RJC sensor of DT5*B has a different structure from that of the former style DT5*A.*

6.3.2 Note for the DF0 (Electrical to Pneumatic Converter) mounting as a spare

Do not remove the blue sealing plug of the air-pressure pipe for dust prevention when DF0 is mounted to the nest (DCP/CMP) as a spare without input/output signal.

Also, do not apply input signal while the plug is on the pipe hole. This unloaded condition might cause hunting to occur.

Page 6-6 Section 6.3

Replace Table 6.2 with the following:

Table 6.2 Wiring & piping of field side I/O terminal of DCP (DCE) nest • signal conditioner's front terminal

⚠️ **WARNING**

Be sure to turn OFF the power supply before wiring to avoid the risk of electric shock. Use a tester or similar device to ensure that no power is being supplied to a cable to be connected.

Table 6.2 Wiring and piping of field side I/O terminal of DCP (DCE) nest ● signal conditioner's front terminal

Signal Conditioner		Field side I/O Terminal Symbol			Converter-front Terminal Symbol				
		A	B	C	1	2	3	4	AIR
DM1		+		−			+	−	
							For Output 2		
DT5		+ ⟋ RJC −					+	−	
							For Output 2		
DR5		(A and B, resistor network)					+	−	
		Wiring resistance of A and B should be equal					For Output 2		
DRU		RTD			○	○	+	−	
							For Output 2		
DS1		100% CENTER 0%					+	−	
		Wiring resistance of A and C should be equal					For Output 2		
DP1 DP3	2-wire type (Voltage contact)	+		−					
	Internal power supply 2-wire type	Signal	Power supply				+	−	
							For Output 2		
	Internal power supply 3-wire type	+	Power supply	−					
DH1, DH2, DH5		+		−			+	−	
							For Output 2		
DA1, DA2, DA5		Available for the combination with BARD + ⊗ − in case power supply is not necessary For 2-wire transmitter − ⊗ +					+	−	
							For Output 2		
DH0, DA0, DQ0		+		−					
DX1		+		−					
DG1 ⚠️					V○ u v ○± U×V L N		+	−	
							For Output 2		
DB1 ⚠️					A○ k l ○± K L		+	−	
							For Output 2		
DD1 ⚠️					V○ ○± TG		+	−	
							For Output 2		
DF1					+	−			IN ◎
					For Output 2				
DF0 (Available for DCP only)					+	−			◎ OUT
					For output signal check				
DSK		+		−	NO/NC	COM	NO/NC	COM	
					Output 1		Output 2		

• I/O screw terminal: M4 x 0.7, I/O signal piping: Rc1/4 female screw, Supply side piping: Rc3/8 female screw
• In case the output 2 signal is DC, it can be output from either "CN2" or from "Converter-front terminal".

⚠️ **CAUTION**

Connect the input signal line of DG1, DB1, DD1 to converter-front terminals 1 and 2. An incorrect connection may cause overheating or burning of the nest (DCP/DCE).

Page 6-7 Section 6.3

Replace Table 6.3 with the following:

Table 6.3 Wiring & piping of field side I/O terminal of DMP (DME) nest • signal conditioner's front terminal

⚠ **WARNING**

Be sure to turn OFF the power supply before wiring to avoid the risk of an electric shock. Use a tester or similar device to ensure that no power is being supplied to a cable to be connected.

Table 6.3 Wiring and piping of field side I/O terminal of DMP (DME) nest ● signal conditioner's front terminal

Signal Conditioner		Field side I/O Terminal Symbol			Converter-front Terminal Symbol				
		A	B	C	1	2	3	4	AIR
DM1		+		−			+	−	
							For Output 2		
DT5		+	RJC	−			+	−	
							For Output 2		
DR5		Wiring resistance of A and B should be equal					+	−	
							For Output 2		
DRU		RTD					+	−	
							For Output 2		
DS1		100% CENTER 0% Wiring resistance of A and C should be equal					+	−	
							For Output 2		
DP1 DP3	2-wire type (Voltage contact)	+		−					
	Internal power supply 2-wire type	Signal	Power supply				+	−	
							For Output 2		
	Internal power supply 3-wire type	+	Power supply	−					
DH1, DH2, DH5		+		−			+	−	
							For Output 2		
DA1, DA2, DA5		Available for the combination with BARD in case power supply is not necessary For 2-wire transmitter					+	−	
							For Output 2		
DH0, DA0, DQ0		+		−					
DX1		+		−					
DG1 ⚠					V u v ± U V L N		+	−	
							For Output 2		
DB1 ⚠					A k l ± K L		+	−	
							For Output 2		
DD1 ⚠					V TG ±		+	−	
							For Output 2		
DF1					+	−			IN ◎
					For the Output 2				
DF0 (Available for DMP only)					+	−			◎OUT
					For output signal check				
DSK		+		−	NO/NC	COM	NO/NC	COM	
					For output signal check		Output 2		

Signal Conditioner	Field side I/O Terminal Symbol			Converter-front Terminal Symbol				
	A	B	C	1	2	3	4	AIR
DC0	+		−					
DX1 (*1)	+		−					

• I/O screw terminal: M4 x 0.7, I/O screw piping: Rc1/4 female screw, Supply side piping: Rc3/8 female screw
• In case the output 2 signal is DC, it can be output from either "CN2" or from "Converter-front terminal"
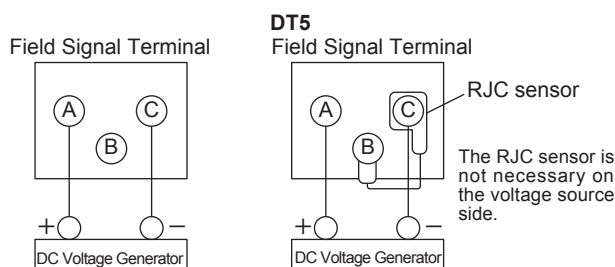(*1) 250Ω installed type cannot be used as output card (even-numbered slot)

⚠ **CAUTION**

Connect the input signal line of DG1, DB1, DD1 to converter-front terminals 1 and 2. An incorrect connection may cause overheating or burning of the nest (DMP/DME).

Page 7-4 Section 7.2 CALIBRATION

Replace with the following text:

7.2.3 Connection to Calibration Equipment

(1) DM1, DT5, DH1, DH2, DH5 (No input resistance)

Field Signal Terminal

DT5
Field Signal Terminal

RJC sensor

The RJC sensor is not necessary on the voltage source side.

DC Voltage Generator

DC Voltage Generator

Page 7-6 Section 7.2 CALIBRATION

7.2.4 Calibration of DM1, DT5, DR5, DS1

Apply the input signal equivalent to 0, 25, 50, 75, and 100% of span to signal conditioner through voltage generator or variable resistor according to the measuring range.

In case of DT5, after turning off the RJC via C08 parameter, apply mV corresponding temperature to between terminals A(+) and C(-) by referring to the list of thermo-electromotive force. (The semiconductor sensor is not necessary.)

Check the value indicated on the control system CRT screen or output terminal of the DXT card that each "output 1" is 1V, 2V, 3V, 4V, 5V and is within accuracy rating range.
(No adjustment trimmer. Check only.)
Also, make sure the difference between "output2" and "output1" is within ±0.2% of span.

Page 8-3 Section 8.3 SETTING AND INPUT/OUTPUT ADJUSTMENT

Add the following content: 8.3.4
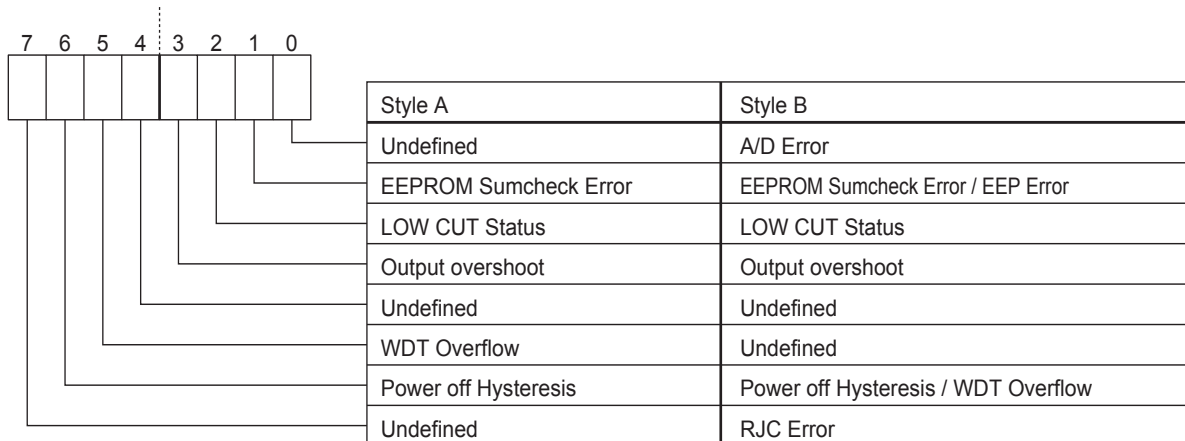
8.3.4 RJC ON/OFF (C08)

The RJC can be paused during the adjustment for the input, etc. It returns to ON mode when the main unit is turned off and then on again.

Page 8-3 Section 8.4 OTHER DISPLAY AND SETTING ITEMS

Replace Table "8.4.1 STATUS" with the following:

8.4.1 STATUS(A03)

Bit Allocation for STATUS

	Style A	Style B
	Undefined	A/D Error
	EEPROM Sumcheck Error	EEPROM Sumcheck Error / EEP Error
	LOW CUT Status	LOW CUT Status
	Output overshoot	Output overshoot
	Undefined	Undefined
	WDT Overflow	Undefined
	Power off Hysteresis	Power off Hysteresis / WDT Overflow
	Undefined	RJC Error

Page 8-4 Section 8.5 TABLE OF PARAMETERS

DT5 and DR5 have been replaced with the following:

Number	Item	Display	Data display for each signal conditioner	
			DT5	DR5
01	Model	MODEL	DT5*B	DR5*B
02	Tag No.	TAG NO.	Alphanumeric 16 characters	
03	Self check	SELF CHK	GOOD or ERROR	
A00	Display item			
A01	Input value	INPUT	□□□□.□degC(*5)	□□□.□degC(*5)
A02	Output value	OUPUT	□□□.□%	
A03	Status	STATUS	FF(2 digits in hex)	
A04	Rev No.	REV NO.	n.nnn (n: Revision number)	
B00	Setting item			
B01	Tag No.1	TAG NO.1	Alphanumeric 8 characters	
B02	Tag No.2	TAG NO.2	Alphanumeric 8 characters	
B03	Comment 1	COMMENT1	Alphanumeric 8 characters	
B04	Comment 2	COMMENT2	Alphanumeric 8 characters	
B05	DR5 Input type	TYPE		PT/JPT/PT100-90/PT50(*1)
B06	DT5 Input type	TYPE	B/E/J/K/T/R/S/N	
B09	Temperature unit	UNIT	degC/degF/K	
B10	Zero	ZERO	□□□□.□degC	
B11 (*2)	Span	SPAN	□□□□.□degC	
B12	Burnout	BURN OUT	OFF/UP/DOWN	
C00	Adjustment item			
C01	0% Output correction	OUT0%	±10.00	
C02	100% Output correction	OUT100%	±10.00	
C03	Wire resistance compensation (*3)	WIRING R	EXECUTE/RESET	
C04	Input Zero adjustment	ZERO ADJ	□□□.□□□mV RST/INC/DEC	□□□.□□□Ω RST/INC/DEC
C05	Input Span adjustment	SPAN ADJ	□□□.□□□mV RST/INC/DEC	□□□.□□□Ω RST/INC/DEC
C08	RJC ON/OFF	RJC	ON/OFF(*6)	

*1 PT=Pt100 (IPTS-68:JIS'89), JPT=JPt100 (JIS'89), PT100-90=Pt100 (ITS-90:JIS'97), PT50=Pt50 (JIS'81)

*2 The measurable data is the range described in the standard specifications.

*3 The wire resistance compensation is the function to correct the errors that occur when the external conductor resistance is high. (It is mandatory for the combination with BARD Safety Barrier)

*5 The temperature unit displayed is the unit that was set up with the parameter [B09: UNIT].

*6 The RJC returns to "ON" after the power is turned off and then on again.