# Calibration through CC-Link Interface

Calibration through CC-Link interface can be carried out with a device set to 4 stations occupied or 2 stations occupied. The calibration process is detailed below.

The processes below are explained on the following pages using an example of a device set up to use channel 1 with a capacity of 6.000t, calibration weight of 3.000t, and minimum weighing value of 10.



## ① Measurement Unit Configuration

Do the following to configure the measurement unit to "t" (ton).

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000E(D370): Input 1001(3E9H) for Command No.: Select Measurement Unit (C-F01).
- 3. Master RWw000C~RWw000D(D368~D369): Input 3(3H) for Command Data: Set to t(ton).
- 4. Master RY0002(Y102): Turn command processing request ON.
- 5. Device RX0002(X102): Confirm command processing response is ON.
- 6. Device RWr000E(D114): Confirm command no. response is 1001(3E9H).
- 7. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 3(3H)
- 8. Master RY0002(Y102): Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting Value		Remarks
	4 stations occupied、 channel 1	Device	DEC	HEX	
Command No.	RWw000E	D370	1001	3E9H	Function Code
Command Data	RWw000C~RWw000D	D368~D369	3	3H	Setting value

#### 2 Decimal Place Configuration

Do the following to set the decimal place to thousandths (0.000).

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000E(D370): Input 1002(3EAH) for Command No.: Select Decimal Place (C-F02).
- 3. Master RWw000C~RWw000D(D368~D369): Input(3H) for Command Data: Set to 0.000.
- 4. Master RY0002(Y102): Turn command processing request ON.
- 5. Device RX0002(X102): Confirm command processing response is ON.
- 6. Device RWr000E(D114): Confirm command no. response is 1002(3EAH).
- 7. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 3(3H).

8. Master RY0002(Y102): Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	HEX	
	channel 1	201100			
Command No.	RWw000E	D370	1002	3EAH	Function Code
Command Data	RWw000C~RWw000D	D368~D369	3	3H	Setting value

## 3 Minimum weighing value Configuration

Do the following to set the minimum weighing value to 10.

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000E(D370): Input 1003(3EBH) for command no.: Select minimum weighing value (C-F03).
- 3. Master RWw000C~RWw000D(D368~D369): Input 4(4H) for command data: Set to 10.
- 4. Master RY0002(Y102): Turn command processing request ON.
- 5. Device RX0002(X102): Confirm command processing response is ON.
- 6. Device RWr000E(D114): Confirm command no. response is 1003(3EBH).
- 7. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 4(4H).
- 8. Master RY0002(Y102): Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied, channel 1	Device	DEC	HEX	
Command No.	RWw000E	D370	1003	3EBH	Function Code
Command Data	RWw000C~RWw000D	D368~D369	4	4H	Setting value

#### (4) Capacity Configuration

Do the following to set capacity to 6000.

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000E(D370): Input 1004(3ECH) for command number: Set to capacity(C-F04).
- 3. Master RWw000C~RWw000D(D368~D369): Input 6000(1770H) for command data: Set to 6000.
- 4. Master RY0002(Y102): Turn command processing request ON.
- 5. Device RX0002(X102): Confirm command processing response is ON.
- 6. Device RWr000E(D114): Confirm command no. response is 1004(3ECH).
- 7. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 6000(1770H).
- 8. Master RY0002(Y102):Turn command processing request OFF.。

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	HEX	
	channel I				
Command No.	RWw000E	D370	1004	3ECH	Function Code
Command Data	RWw000C~RWw000D	D368~D369	6000	1770H	Setting value

#### (5) Calibration Weight Value Configuration (weight value for span input voltage)

- Do the following to set the weight value to 3000.
- 1. Master RY0003(Y103):Set the read/write option to "write (OFF)".
- Master RWw000E(D370): Input 1019(3FBH) for command no.: Select weight value for span input voltage (C-F19).
- 3. Master RWw000C~RWw000D(D368~D369): Input 3000(BB8H) for command data: Set to 3000.
- 4. Master RY0002(Y102): Turn command processing request ON.
- 5. Device RX0002(X102): Confirm command processing response is ON.
- 6. Device RWr000E(D114): Confirm command no. response is 1019(3FBH).
- 7. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 3000(BB8H).
- 8. Master RY0002(Y102): Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	HEX	
	channel 1		DEG		
Command No.	RWw000E	D370	1019	3FBH	Function Code
Command Data	RWw000C~RWw000D	D368~D369	3000	BB8H	Setting value

# 6 Zero adjustment with Actual Weights

Do the following to calibrate the zero adjustment with actual weights.

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000C~RWw000D(D368~D369): Input 91(5BH) for command data: Select CAL zero preliminary.
- 3. Master RY0002(Y102): Turn command processing request ON.

(CAL will display 0 on the device, and enter CAL zero input mode.)

- 4. Device RWr000C~RWr000D(D112~D113):Confirm command data response is 91(5BH).
- 5. Master RY0002(Y102):Turn command processing request OFF.
- 6. Remove any items from the weighing platform.
- 7. Device RX0017(X117): Confirm that stable is ON.
- 8. Master RWw000C~RWw000D(D368~D369): Input 94(5EH) for command data: Set CAL zero configuration.
- 9. Master RY0002(Y102): Turn command processing request ON.

(Zero input voltage (C-F17) will be updated and the device will display C-SPn.)

- 10. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 94(5EH).
- 11. Master RY0002(Y102):Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	НЕХ	
	channel 1				
Command Data	RWw000C~RWw000D	D368~D369	91	5BH	CAL Zero prelim.
Command Data	RWw000C~RWw000D	D368~D369	94	5EH	CAL Zero config.

## ⑦ Span Calibration with Actual Weights

Do the following to calibrate the span with actual weights.

(When this is performed after calibrating the zero adjustment with actual weights, steps 2-5 may be omitted)

- 1. Master RY0003(Y103):Set the read/write option to "write (OFF)".
- 2. Master RWw000C~RWw000D(D368~D369): Input 92(5CH) for command data: Select CAL span preliminary.
- Master RY0002(Y102): Turn command processing request ON. (C-SPn will display and the device will enter CAL span input mode.)
- 4. Device RWr000C~RWr000D(D112~D113):Confirm command data response is 92(5CH).
- 5. Master RY0002(Y102):Turn command processing request OFF.
- 6. Place a 3.000t weight on the weighing platform.
- 7. Device RX0017(X117): Confirm that stable is ON.
- 8. Master RWw000C~RWw000D(D368~D369): Input 95(5FH) for command data: Set CAL span configuration.
- 9. Master RY0002(Y102):Turn command processing request ON.

(Zero input voltage (C-F17) will be updated, and the device will display C-End.)

- 10. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 95(5FH).
- 11. Master RY0002(Y102):Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	HEX	
	channel 1		DEG		
Command Data	RWw000C~RWw000D	D368~D369	92	5CH	CAL Span prelim.
Command Data	RWw000C~RWw000D	D368~D369	95	5FH	CAL Span config.

#### ⑧ Final Steps

After zero and span adjustment have been calibrated with weights do the following to finish calibration.

- 1. Master RY0003(Y103): Set the read/write option to "write (OFF)".
- 2. Master RWw000C~RWw000D(D368~D369): Input 93(5DH) for command data : Select CAL complete.
- 3. Master RY0002(Y102): Turn command processing request ON.

(Device will display the measured value and enter weighing mode.)

- 4. Device RWr000C~RWr000D(D112~D113): Confirm command data response is 93(5DH).
- 5. Master RY0002(Y102): Turn command processing request OFF.

	CC-Link Address	GX Developer	Setting value		Remarks
	4 stations occupied,	Device	DEC	HEX	
	channel 1	Device	DLU	TIEX	
Command Data	RWw000C~RWw000D	D368~D369	93	5DH	CAL Complete