
Connection Conversion Board for SMC

CCB-SMC2 User's Guide

CONTEC CO.,LTD.

Thank you for purchasing the CONTEC product.

This product is a conversion terminal capable of easily and appropriately connecting a CONTEC motion control board, motor driver unit and limit sensor with 0.8mm pitch 100pin connector to external devices such as a motor driver unit, limit sensor, and power supply. This product requires a separately priced option cable for connection to the control board.

Features

Capable of connecting up to four motor driver units

- The conversion terminal can accept up to four servomotor or stepping motor driver units.
- 37pin D-SUB connector which can be easily machined and manufactured.
- Optimized in pin-signal assignment for easier connection to the controller connector of the motor driver unit.

Capable of connecting up to four limit sensors

- The conversion terminal can accept up to four limit sensors.
- Providing 9pin D-SUB connectors each with a power output, capable of accepting a sensor which requires power supply.

Equipped with terminal-screw-type power supply pins

Capable of mounting on the DIN rail by using the option

- The DIN rail adapter "DIN-ADP1" is available as an option, which allows the CCB-SMC2 to be mounted on a 35mm DIN rail.

Product Configuration List

The product consists of the items listed below. Check, with the following list, that your package is complete. If you discover damaged or missing items, contact your retailer.

- | | |
|-----------------------------|------------------------------------|
| - Conversion terminal ...1 | - User's guide (this booklet) ...1 |
| - Warranty Certificate ...1 | - Serial number label ...1 |



CAUTION

The option cable is bundled neither with this product nor the board to connect. Since the required option cable depends on each board, check it with the manual for the board or at the CONTEC's web site to purchase the right one.

External dimensions

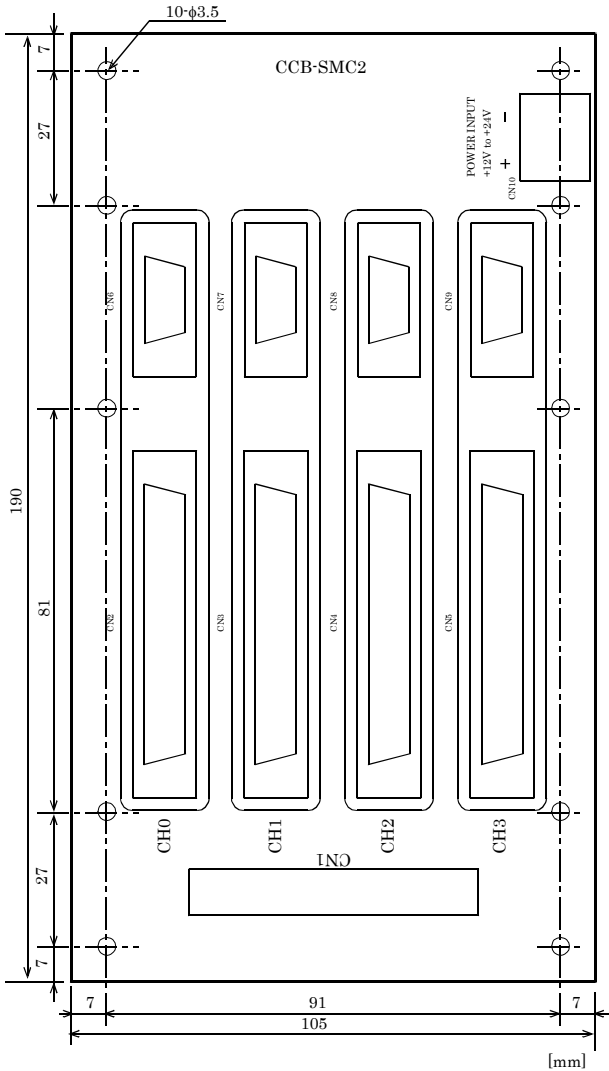


Figure 1 External dimensions

System configuration

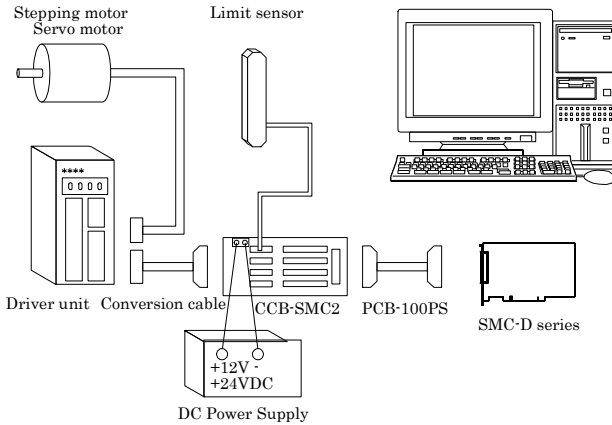


Figure 2 System configuration

CCB-SMC2 Connection Cable (Option)

This product is not bundled with a board connection cable. Purchase the appropriate cable depending on the application, selected from among the optional cables listed below.

Shielded Cable With Two 100pin Connector

- : PCB100PS-0.5 (0.5m)
- : PCB100PS-1.5 (1.5m)
- : PCB100PS-3 (3m)
- : PCB100PS-5 (5m)

* Check the CONTEC's Web site for more information on these options.

Connector Pin Assignment

CN2 - CN5					
-direction end limit input	LIM-	1	20	P-COM	Plus common
+direction end limit input	LIM+	2	21	P-COM	Plus common
Original point input	ORG	3	22	P-COM	Plus common
Ground	GND	4	23	IN7	General purpose input7
Ground	GND	5	24	IN6	General purpose input6
Ground	GND	6	25	IN5/PCS	General purpose input5/positioning control start input
Ground	GND	7	26	IN4/LTC	General purpose input4/counter latch input
Ground	GND	8	27	IN3/SD	General purpose input3/(deceleration (decelerated stop) input)
Ground	GND	9	28	IN2/INP	General purpose input2/positioning completion input
Ground	GND	10	29	IN1/ALM	General purpose input1/alarm input
Encoder Z phase input	-Z	11	30	Z+	Encoder Z phase input+
Encoder B phase input	-B	12	31	B+	Encoder B phase input+
Encoder A phase input	-A	13	32	A+	Encoder A phase input+
General purpose output3	OUT3	14	33	P-COM	Plus common
General purpose output2	OUT2	15	34	P-COM	Plus common
General purpose output1	OUT1	16	35	P-COM	Plus common
Direction / CCW output-	DIR-/CCW-	17	36	DIR+/CCW+	direction/CCW+ direction/CCW output+
Pulse / CW output-	OUT-/CW-	18	37	OUT+/CW+	pulse/CW+ pulse/CW output+
	N.C.	19			

Figure 3 Connector Pin Assignment (CN2 - CN5)

CN6 - CN9					
Plus common	P-COM	1	6	P-COM	Plus common
Plus common	P-COM	2	7	LIM+	+ direction end limit
Original point input	ORG	3	8	LIM-	- direction end limit
Ground	GND	4	9	GND	Ground
Ground	GND	5			

Figure 4 Connector Pin Assignment (CN6 - CN9)

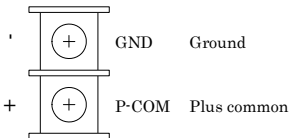


Figure 5 Connector Pin Assignment (CN10)

Connection Examples

Example of Connection to driver unit (Σ II Series) for Servo motor

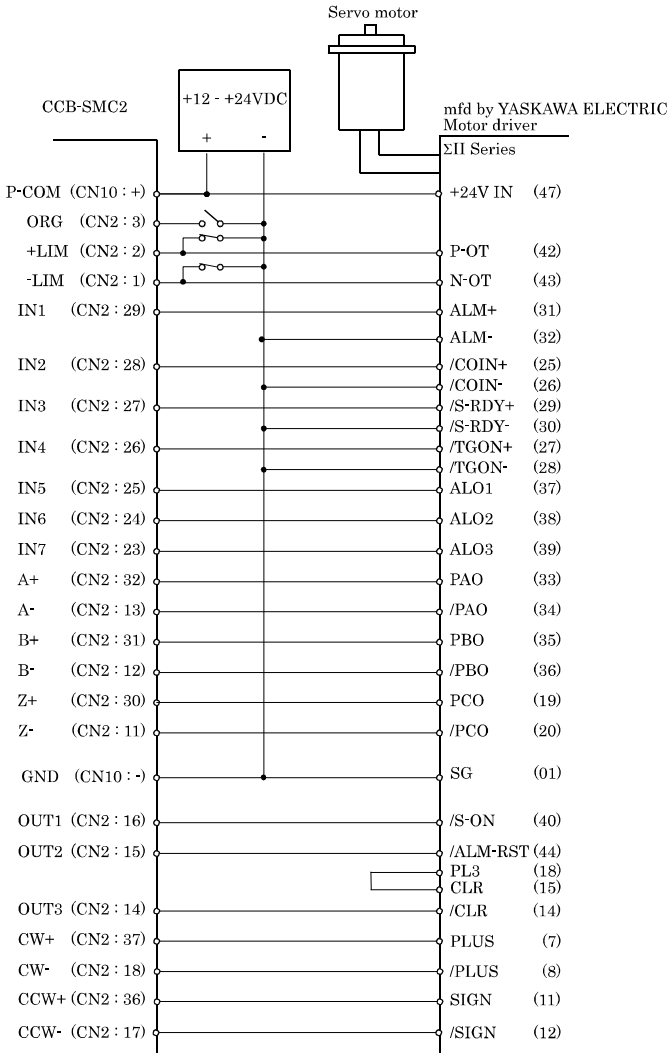


Figure 6 Connection Examples

Specification

Table 1. Basic specification

Item	Specification
Compatible DIN rail	35mm width
Operating condition	0 - 50°C, 10 - 90%RH (No condensation)
Weight	250g

Table 2. Interface connector (CN1) specification

Item	Specification
Used connector	100pin 0.8mm pitch connector [F (female) type] HDRA-EC100FDT+ [HONDA TSUSHIN KOGYO CO., LTD.] or equivalence to it
Compatible connector	100pin 0.8mm pitch connector [M (male) type] HDRA-E100LPWC [HONDA TSUSHIN KOGYO CO., LTD.] or equivalence to it

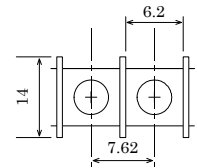
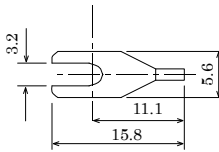
Table 3. Interface connector (CN2 - CN5) specification

Item	Specification
Used connector	37pin D-SUB connector [F (female) type] DC-37S-T-NR [JAE] or equivalence to it Locknut UNC #4-40 (inch screw threads)
Compatible connector	37pin D-SUB connector [M (male) type] DC-37P-N [JAE] or equivalence to it

Table 4. Interface connector (CN6 - CN9) specification

Item	Specification
Used connector	9pin D-SUB connector [F (female) type] DE-9S-T-NR [JAE] or equivalence to it Locknut UNC #4-40 (inch screw threads)
Compatible connector	9pin D-SUB connector [M (male) type] DE-9PF-N [JAE] or equivalence to it

Table 5. Power connector (CN10) specification

Terminal connector	ML-40S1BYF by Satoh Parts or equivalence to it	Compatible Y pin	C3A [Nippon Crimp Terminal] or equivalence to it
Dimensions [mm]	 <p>Pin screw : M3</p>	Dimensions [mm]	

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December 2012 Edition

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A-51-264 (LYGG575)

12192012_rev5 [07062006]

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