

# Communication Controller PLC/Controller Converter CMC10G

The communication controller CMC10G is a converter designed to connect PLC and Yamatake's controllers.

## ■ Features

- **Communication among PLCs and controllers without use of programs**

The communication among various PLCs and controllers can be established without use of programs.

This greatly reduces the number of communication program development steps.

- **Free setup corresponding to the user's applications**

Use of AP editor makes it possible that the user can set various setup items, such as PLC model selections and various settings.

- **Space saving**

The CMC10G is designed to be compact and can be installed in any place. Additionally, use of DIN rails ensures easy mounting.

- **Wiring saving**

The CMC10G can be connected to the DMC10 with the connector. No communication and power wiring lines are needed.

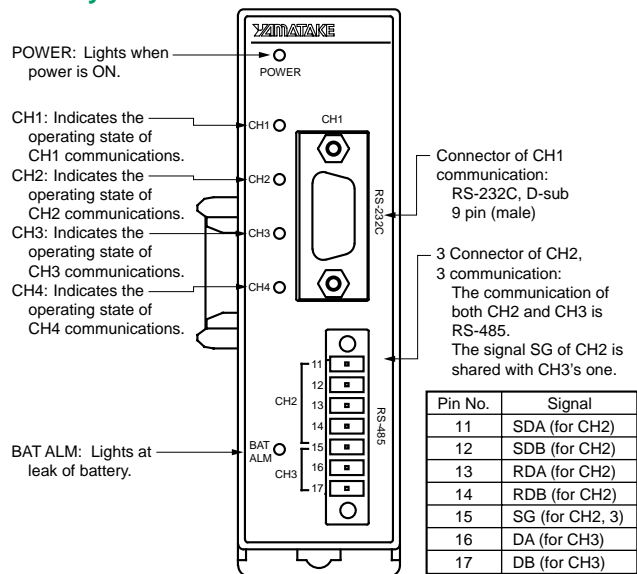


## ■ Specifications

Item		Specifications	
Communications	CH1	RS-232C, Full duplex, Max. 15m, D-sub pin	
	CH2	RS-485, Full duplex method, 5-wire system, Max. 500m, connector (5 out of 7 pins)	
	CH3	RS-485, Half duplex method, 3-wire system, Max. 500m, connector (3 out of 7 pins)	
	CH4	RS-485, Half duplex method, 3-wire system, Max. 500m, Screw terminal (Base)	
General Specifications	Rated power voltage	24Vdc	
	Operating power voltage	21.6 to 26.4Vdc	
	Power consumption	Max. 3.0W	
	Insulation resistance	Min. 20MΩ by 500Vdc-Megger (between case and 24Vdc power terminal)	
	Dielectric strength	500Vac for 1min. (between case and 24Vdc power terminal)	
	Isolation	Each CH of communication is isolated from the power supply. Each CH of communication isn't isolated.	
	Memory backup	Min. 4 years at 25°C	
	Operating condition	Ambient temperature: 0 to 50°C    Ambient humidity : 30 to 90%RH	
	Transport/storage conditions	Ambient temperature: -20 to +70°C    Ambient humidity : 10 to 95%RH	
	Screw tightening torque	Power terminal and CH4 communication terminal : 0.8 to 1.0N·m	
	Mounting	DIN rail mount or screw mount	
	Mask/Case	Mask/Case materials	Mask: Polycarbonate, Case: Polycarbonate, Base: Polycarbonate
		Mask/Case color	Mask: Navy blue, Case: Light gray, Base: Light gray
Mass	Approx. 200g		
Applicable standards	EN50081-2, EN61000-6-2		
Accessories	User's Manual (No. CP-UM-5185E) 1 copy CH2, CH3 Communication Connector 1 piece		
Maintenance parts	Battery	Model No.: 81446345-001	
Optional parts	RS-232C Cable	Model No.: CBL232FFT02	
Software	AP editor	Model No.: ESTX240SWWJC000	

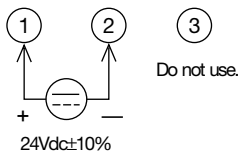
# Terminal/Connector connections

## Body



## Connecting the power supply

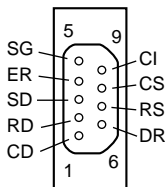
Connect the 24Vdc power supply to terminals (1) and (2) on the base.



## Connecting for CH1 Communications (RS-232C)

Connect the cable to the D-SUB 9-pin connector on the CMC10G.

Pin No.	Signal	Contents
1 <sup>*1</sup>	CD	Unused
2	RD	Receive data (Peer device → CMC10G)
3	SD	Send data (CMC10G → Peer device)
4 <sup>*1</sup>	ER	Unused
5	SG	Signal ground
6 <sup>*1</sup>	DR	Unused
7 <sup>*2</sup>	RS	Unused
8 <sup>*2</sup>	CS	Unused
9	CI	Unused



\*1 Pin Nos. 1, 4 and 6 are each connected internally.  
 \*2 Pin Nos. 7 and 8 are connected internally.

## Connecting for CH2 Communications (RS-485)

This communication is performed using a 5-wire system connection of RS-485 and it's also performed using a 3-wire system connection. The connector for this interface is installed.

Connect the terminating resistor (150Ω, 1/2W).

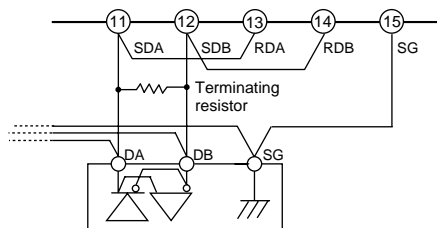
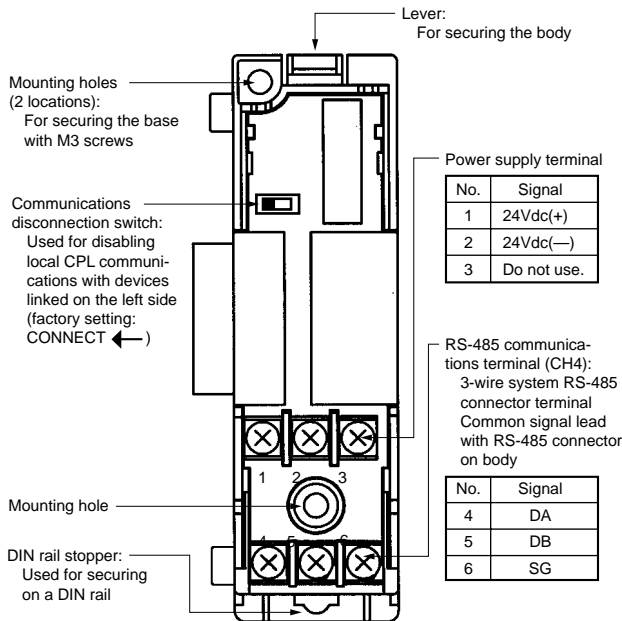


Fig: Example of connecting to 3-wire system product

## Base



## Connecting for CH3 Communications (RS-485)

This communication is performed using a 3-wire system connection of RS-485.

The connector for this interface is installed. This is shared with CH2.

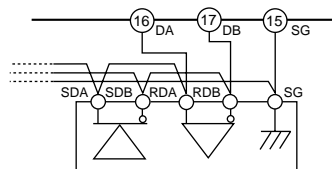


Fig: Example of connecting to 5-wire system product

## Connecting for CH4 Communications (RS-485)

This communication is performed using a 3-wire system connection of RS-485.

This interface is connecting to the terminal of base.

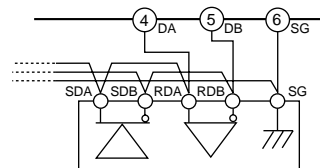
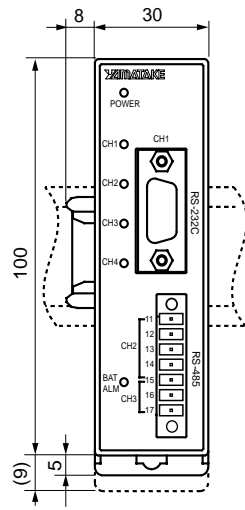


Fig: Example of connecting to 5-wire system product

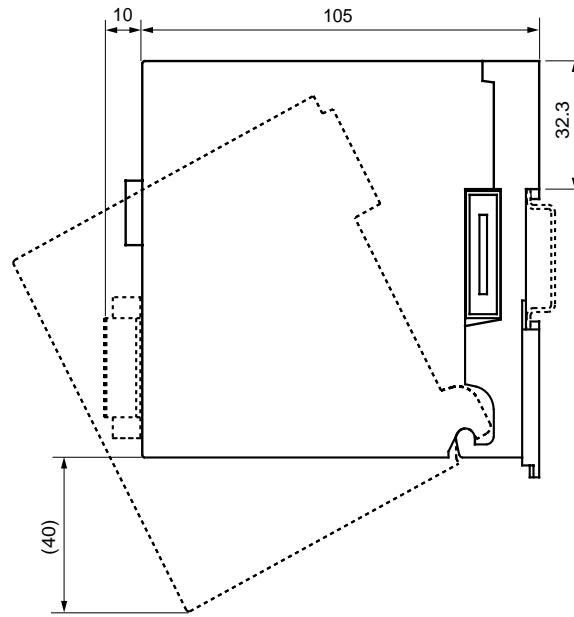
## External Dimensions

### Body/Base



### Dimensions for screw mounting

(Unit: mm)



 **RESTRICTIONS ON USE**

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment. Accordingly, when used in the applications outlined below, special care should be taken to implement a fail-safe and/or redundant design concept as well as a periodic maintenance program.

- **Safety devices for plant worker protection**
- **Start/stop control devices for transportation and material handling machines**
- **Aeronautical/aerospace machines**
- **Control devices for nuclear reactors**

Never use this product in applications where human safety may be put at risk.

*Specifications are subject to change without notice.*

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