

Communication Controller CPL/CPL Converter CMC10B

The communication controller CMC10B is a controller designed to connect units supporting Yamatake's CPL communication, such as multiple digital indicating controllers connected to the slave communication with host units.

The CMC10B always collects the data from the digital indicating controllers connected to the slave communication, ensuring smooth communication with host units.

Use of the CMC10B makes it possible to greatly reduce the communication load among host units and multiple digital indicating controllers.

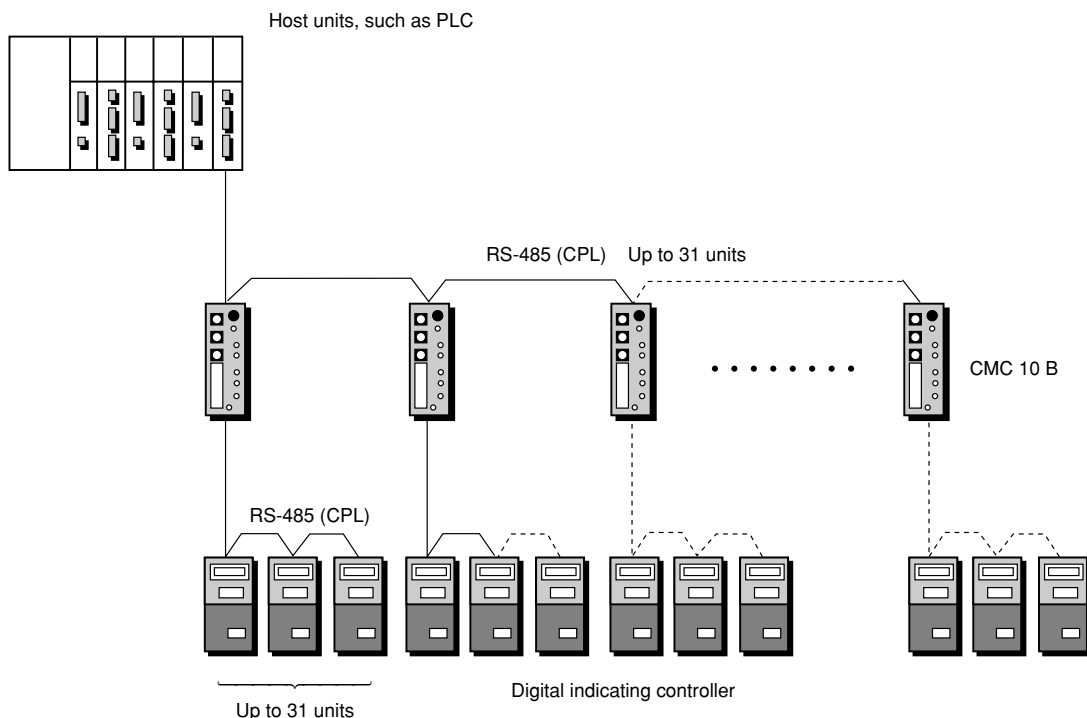
■ Features

- Up to 31 CMC10B units can be connected to one master station and up to 31 CPL communication support units can be connected to one CMC10B unit. Therefore, up to 961 slave units can be connected.
- Data can be read/written from/to multiple digital indicating controllers through one frame. Data from digital indicating controllers, which are slave stations, can be read/written from/to the CMC10B through one frame. This greatly reduces the number of communication cycles among host units and CMC10B units.



- Specially designed personal computer loader supports the setup. The setup operation of the CMC10B can be made easily using the personal computer loader.

■ Example of connection



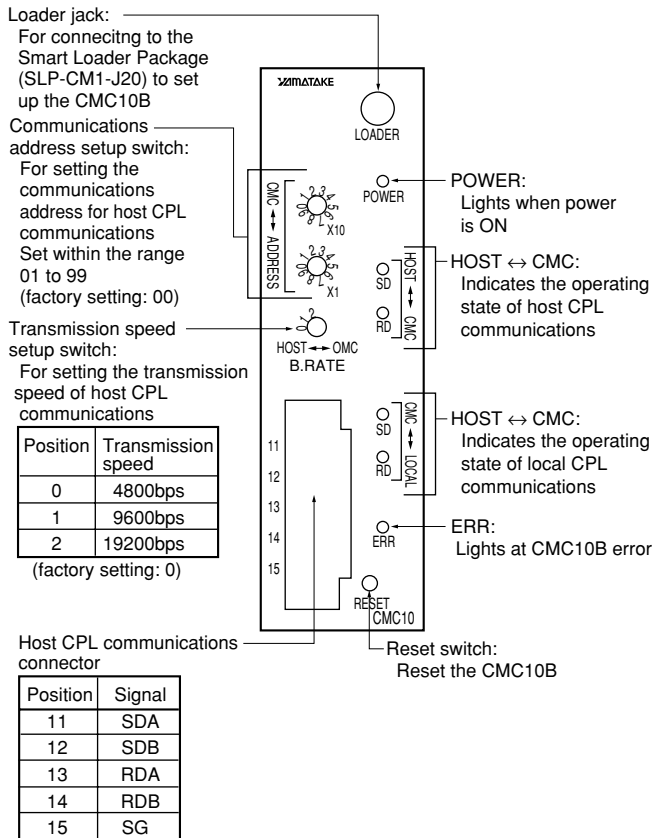
* CPL: Standard communication procedure defined by Control Products Division, Yamatake Corporation.

Communications	Host-CMC	Transmission speed *1	4800, 9600, 19200 bps	
		Data format	8 data bits, even parity, 1 stop bit, or 8 data bits, non-parity, 2 stop bits	
	CMC-Local	Transmission speed	4800, 9600, 19200 bps	
		Data format	8 data bits, even parity, 1 stop bit, or 8 data bits, non-parity, 2 stop bits	
	CMC-Loader	Transmission speed	19200 bps	
		Data format	8 data bits, even parity, 1 stop bit, or 8 data bits, non-parity, 2 stop bits	
General specifications	Rated power voltage	24Vdc		
	Operating power voltage	21.6 to 26.4Vdc		
	Power consumption	5W		
	Insulation resistance	50MΩ or more (when measured using 500Vdc-Megger)		
	Dielectric strength	500Vac for 1 min.		
	Isolation	<p style="text-align: center;"> Host CPL communication Loader communication Local CPL communication </p> <p style="text-align: center;"> Digital circuit </p> <p style="text-align: center;"> Power supply circuit </p> <p style="text-align: center;"> Grounding terminal (Base) </p> <p style="text-align: center;"> ——— Solid line: Isolated. - - - - - Dotted line: Not isolated. </p>		
	Operating conditions	Ambient temperature	0 to 50°C	
		Ambient humidity	30 to 90%RH	
	Transport/Storage conditions	Ambient storage temperature	-20 to +70°C	
		Ambient storage humidity	10 to 90%RH	
		Vibration resistance	4.9m/s ² or less	
		Package drop test:	Drop height 60cm free fall	
	Screw tightening torque	Power terminal–CPL communication terminal	0.8 to 1N·m	
		Connector terminal for host CPL communication connection	0.8N·m	
Connector mounting part for host CPL communication connection		0.8N·m		
Mounting	Screw mounting or DIN rail mounting			
Mass	Approx. 300g			
Standard accessories	User's manual	No. CP-UM-5129E	1 copy	
Optional units (separately sold units)	User's Manual (Design reference)	No. CP-SP-1064E	1 copy	
	Personal computer loader	SLP-CM1J20	Including special cable	
	Connector set	81440792-001	For RS-485 connector connection (4 pcs./set)	

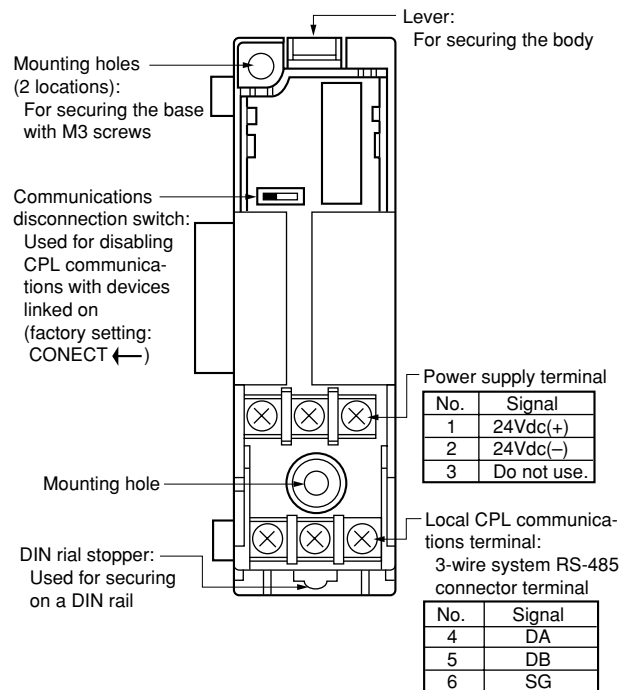
*1: Set the transmission speed with the DIP switch inside the product.

Terminal/Connector connections

Body

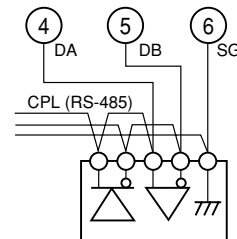


Base



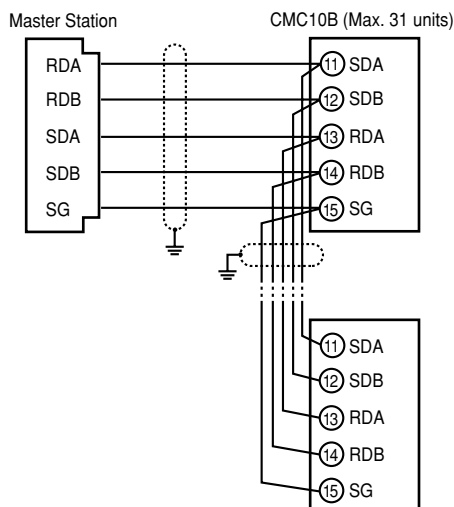
Connecting local CPL communications (CMC ↔ LOCAL)

Local CPL communications (RS-485) is performed using a 3-wire system connection.



Connecting host CPL communications (HOS ↔ CMC)

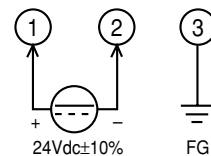
Host CPL communications is performed using a connector. The applicable connector is 81440792-001 (4 pcs./set) MSTB2, 5/5-STF-5, 08AU made by Phoenix Contacts Ltd. or equivalent product.



Ex: Connection with a 5-wire device

Connecting the power supply

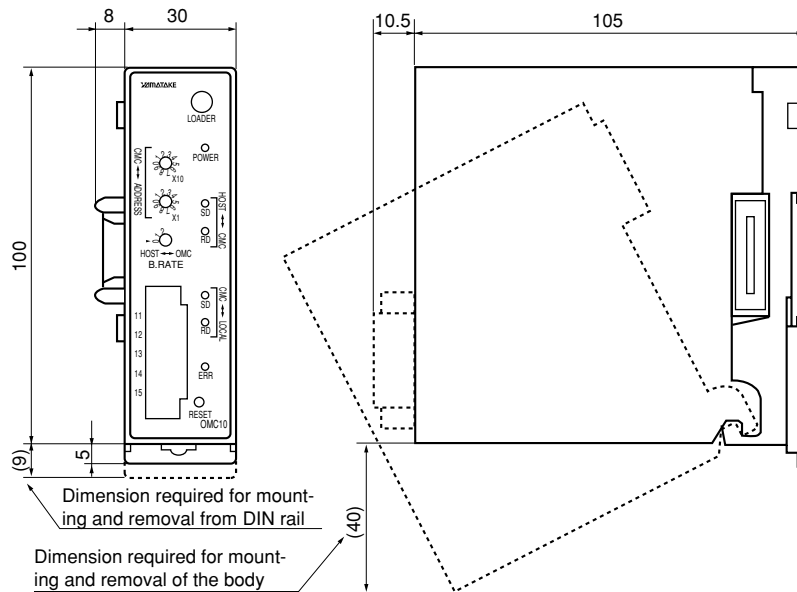
Connect the power terminal as follows:



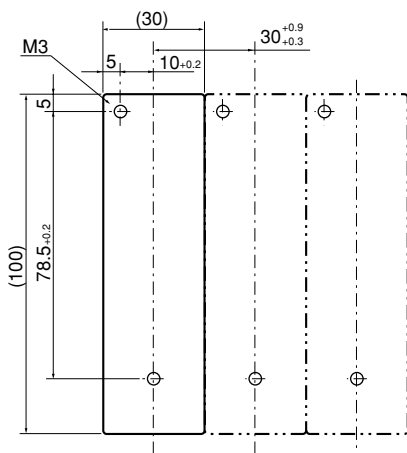
External Dimensions

Body/Base

(Unit: mm)



Dimensions for screw mounting



Secure two mounting holes in the base using the M3 screws.

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.

YAMATAKE

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