OMRON

New Compact and Slim ID Controller

● **Compact and slim body of 65 × 105 × 90 mm (D × W × H).**

● **Identical commands as the present V600-CA1A/-CA2A Controllers.**

● **Two Antennas can be connected.**

● **RS-232C, RS-422, and RS-485 communications in one Unit.**

● **New functions for ease of use:**

Direct connection with a computer from a USB port (USB1.1).

Monitor display (LED) for RUN, communications status, and end code.

● **Compliant with CE and UL/CSA safety standards and the RoHS Directive.**

Ordering Information

Model	Name
V600-CA5D02	ID Controller

Note. An external I/O connector and RS-422/RS-485 connector are included with the V600-CA5D02.

Ratings and Specifications

Item	Specification
Power supply voltage (power consumption)	24 VDC (−15% to 10%) (See note 1.) (15 W max.)
Ambient operating temperature	−10 to 55°C
Ambient operating humidity	25% to 85%
Ambient storage temperature	−25 to 65°C
Ambient storage humidity	25% to 85%
Insulation resistance	Between power supply terminals ad GR/case Between GR and terminals — 20 MΩ min. (at 500 VDC)
Dielectric strength	For all combinations given above: 1,000 VAC 50/60 Hz for 1 minute, leakage current: 10 mA max.
Vibration resistance	10 to 150 Hz with 0.2 mm double amplitude and 15-m/s^2 maximum acceleration, 10 sweeps of 8 minutes each in three directions
Shock resistance	150 m/s^2
Dimensions	105 × 90 × 65 mm (excluding protrusions)
Degree of protection	In-panel (equivalent to IP20)
Materials	PC + ABS
Weight	Approx. 300 g
Installation method	DIN Rail or M4 screws
Read/Write Head Connections	2 channels

Note 1. Recommended Power Supply: S8VS-03024 or S82K-03024
2. For details, refer to the user's manual (Cat. No. Z239).

Communications Specifications

Item	Specification	
	RS-232C	**RS-422/RS-485**
Connector specifications	9-pin D-Sub connector, socket lock screws: M2.6	5-pin connector manufactured by Phoenix Contact MC1.5/5GF-3.5
Communications method	Half-duplex serial communications	4/2-wire half-duplex serial communications
Baud rate	38400, 19200, 9600, 4800, 2400, or 1200 bps	
Data length	7 or 8 bits	
Stop bits	1 or 2 bits	
Error detection	Parity (even, odd, or none)	
Cable length	15 m max.	Total length: 500 m max.

I/O Specifications

Input Specifications (RST, TRG/IN1, and TRG/IN2)

Input voltage	24 VDC +10% (including ripple)/−15% (PNP or NPN)
Input impedance	2.2 kΩ
Input current	10 mA typical (24 VDC)
ON voltage	19 V min.
OFF voltage	5 V max.
I/O response time	70 ms max.

Output Specifications (RUN, BUSY, ERROR, OUT1, and OUT2)

Maximum switching capacity	24 VDC +10% (including ripple)/−15% 100 mA photo MOS outputs (PNP or NPN)
Leakage current	100 µA max.
Residual voltage	2.0 V max.

Note 1. The CPU will stop operation and the RST indicator will light when the RST input is turned ON.

2. The transistor may be damaged if an output is shorted with no load connected.

Names and Functions of Components
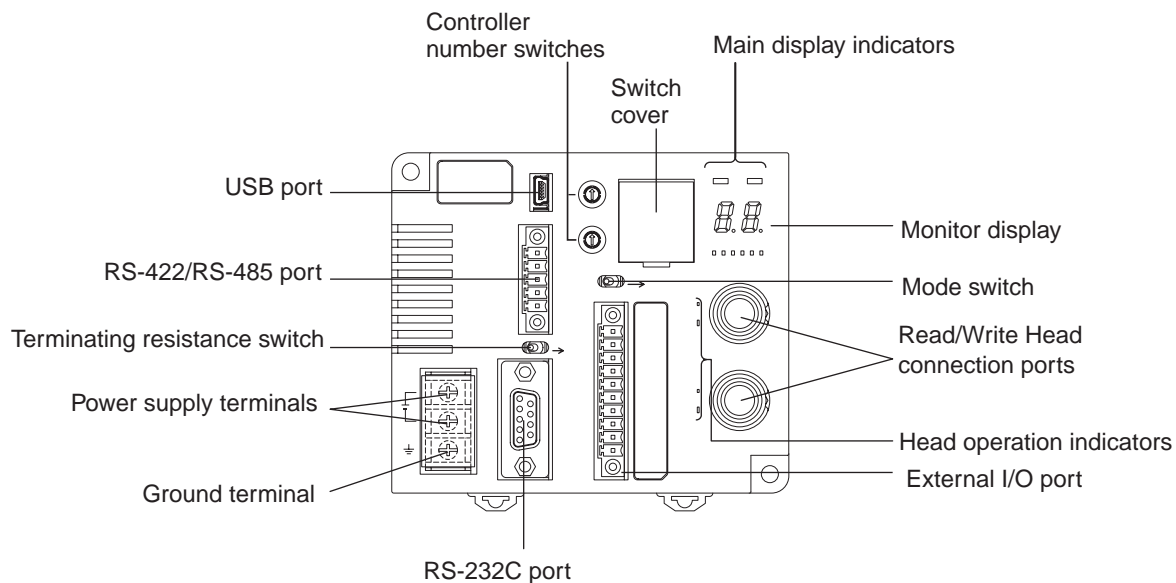
USB Port

The V600-CA5D02 ID Controller can be directly connected to a computer. All commands supported by the V600-CA5D02 can be used, but the USB port is not suitable for control applications. Therefore, for control applications, always use RS-232C/RS485 communications.

The USB port is USB 1.1-compliant. Prepare a suitable cable (series A and mini USB series B connectors). If communications are performed with a computer via USB, a special driver is required. For details, contact your OMRON representative. For connections to the host devices, communications will be 1:1 regardless of the DIP switch setting of pin 9 of DIP switch SW3 on the V600-CA5DO2.

Main Display Indicators

Name	Color	Description
RUN/ RST	Green	Lights when the ID Controller is operating normally.
	Red	Lights when the external reset input is received.
COMM	Green	Lights when communicating normally with the host device.
	Red	Lights when an error has been detected in communications with the host device.

Head Operation Indicators

| Name	Color	Description
COMM1	Yellow	Lights when a communications command for a Data Carrier is being processed for Read/Write Head 1.
NORM1/ ERR1	Green	Lights once when processing for Read/Write Head 1 has ended normally.
	Red	Lights once when processing for Read/Write Head 1 has ended in error.
COMM2	Yellow	Lights when a communications command for a Data Carrier is being processed for Read/Write Head 2.
NORM2/ ERR2	Green	Lights once when processing for Read/Write Head 2 has ended normally.
	Red	Lights once when processing for Read/Write Head 2 has ended in error.

Monitor Display

Name	Color	Mode	Description
7-segment display (2 digits)	Red	RUN mode, end code display	The end code is displayed.
		RUN mode, I/O display	User I/O status is displayed.
		MAINTENANCE mode	The end code is displayed.

System Configuration

All V600-series Read/Write Heads and Data Carriers can be used with V600-CA5D02.
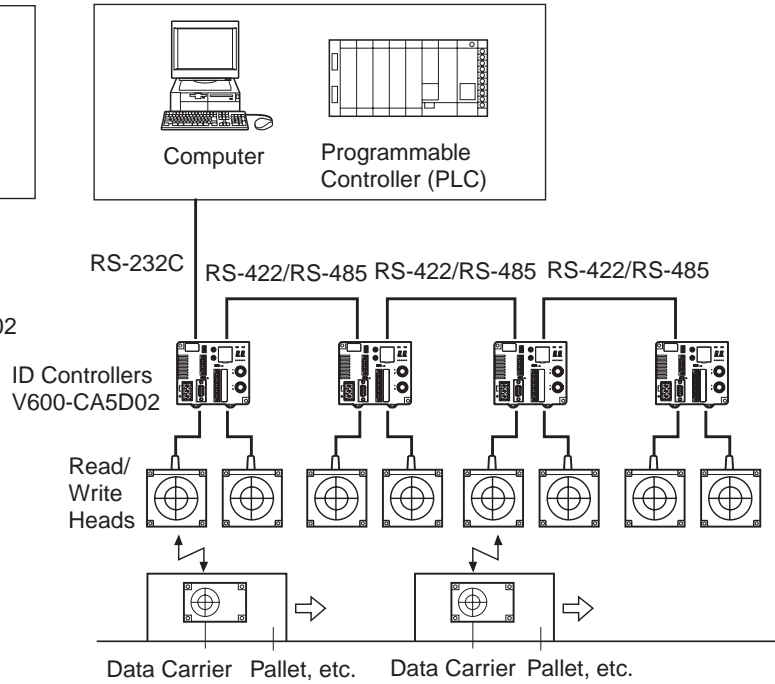
1:1 Connections
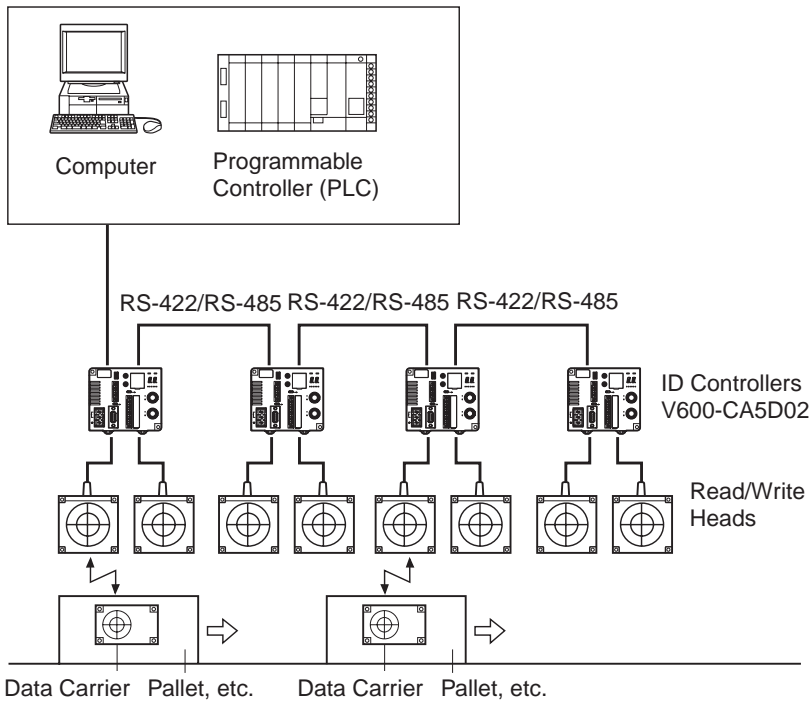The host device is connected via RS-232C.
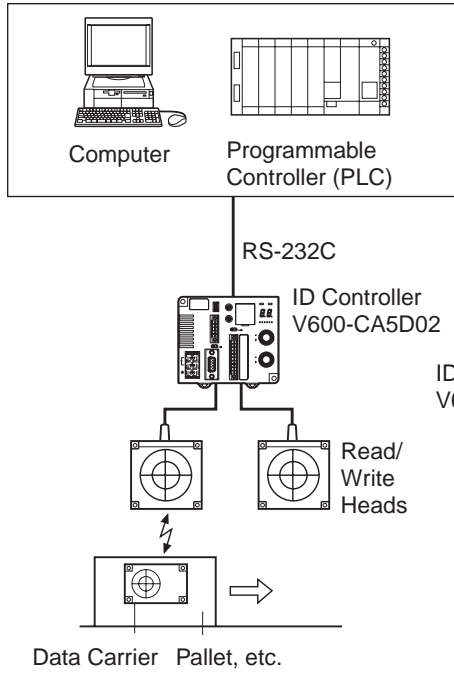
1:N Connections with RS-232C Host Device Connection
The host device is connected via RS-232C.

1:N Connections with RS-422/RS485 Host Device Connection
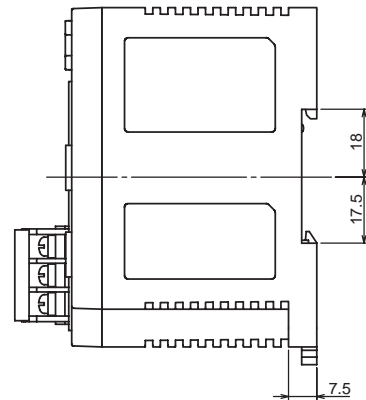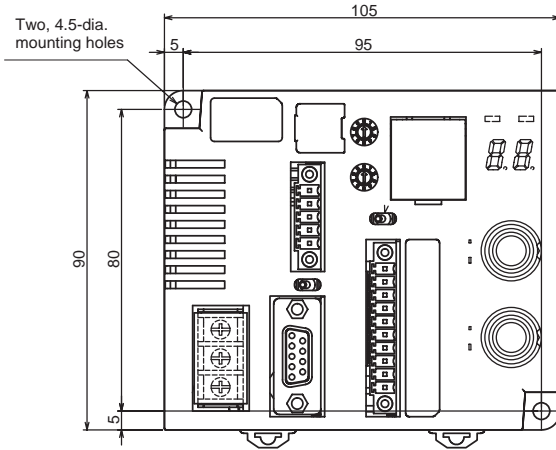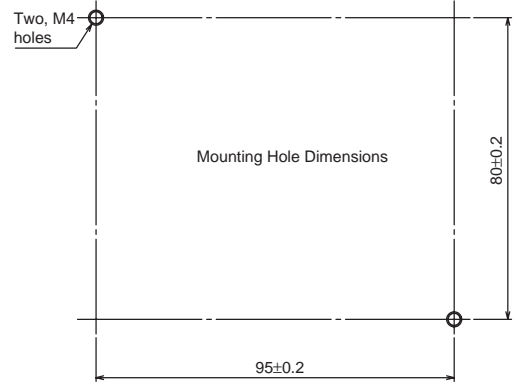The host device is connected via RS-422 or RS-485 and then other ID Controllers are connected via RS-422/RS-485.
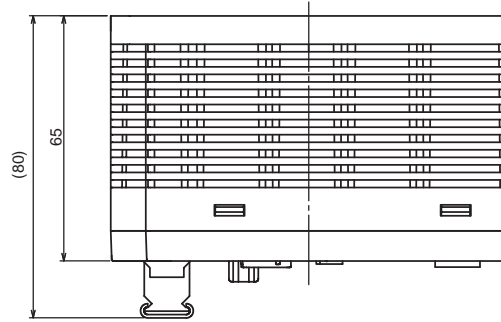

Note. For details, refer to the user's manual (Cat. No. Z239).

Dimensions

V600-CA5D02

Two, M4 holes

Mounting Hole Dimensions

80±0.2

95±0.2

65

(80)

Two, 4.5-dia. mounting holes

105

5

95

90

80

5

18

17.5

7.5

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.