Handheld Reader Writer
V600-CH1D-V2

A Compact Lightweight Easy-to-use Pen-type Reader Writer.

- Connects directly to a personal computer or PLC via RS-232C.
- The Reader Writer's protective construction is IP63 (IEC standard).
- Access V600-series Data Carriers to connected to existing systems.
- CE marking/FCC approvals.

Ordering Information

■ List of Models

Name	Model
Handheld Reader Writer (RS-232C)	V600-CH1D-V2
AC Adapter (for V600-CH1D-V2)	V600-A20

Specifications

Handheld Reader Writer

Item	Specifications	
	V600-CHUD	V600-CH1D-V2
Power supply voltage	5 VDC ±5%	
Ambient operating temperature	−10 to 55°C	
Ambient operating humidity	35 to 85% (with no condensation)	
Ambient storage temperature	−25 to 65°C	
Ambient storage humidity	35 to 85% (with no condensation)	
Degree of protection	IEC 60529: IP63 (See note.)	
Weight	Approx. 120 g (including connector and cable)	Approx. 160 g (including connector and cable)
Current consumption	250 mA max. (for power supply voltage of 5 VDC)	
Material	ABS resin (case), PET resin (nameplate)	
Vibration resistance	Destruction: 10 to 150 Hz with 0.2 mm double amplitude and 15 m/s^2 maximum acceleration, 10 sweeps of 8 minutes each in 6 directions	
Shock resistance	Destruction: 150 m/s^2 (approx. 15 G), 3 times each in 6 directions	
Insulation resistance	50 MΩ min. (at 500 VDC) between connector terminals and case	
Dielectric strength	1,000 VAC, 50/60 Hz for 1 min (1 mA max. leakage current) between connector terminals and case	
Cable length	0.8 m, 1.9 m	2.5 mm

Note: This does not include the connector section. The main unit is not resistant to chemicals or oils.

V600-A22 AC Adapter (for V600-CH1D-V2)

Item	Specifications
Input voltage	100 VAC to 120 VAC, 50/60 Hz
Input current	AC 200 mA ±20% (100 VAC) AC 170 mA ±20% (120 VAC)
Output voltage	5 VDC ±0.25 V
Ambient operating temperature	0 to 40°C
Ambient storage temperature	−40 to 70°C
Ambient operating humidity	25 to 85%
Insulation resistance	100 MΩ min. (at 500 VDC) between input and output terminals
Dielectric strength	1,500 VAC for 1 min (5 mA max. leakage current) between input and output terminals
Weight	Approx. 85 g
Applicable standards	Electrical Appliance Law UL/CSA

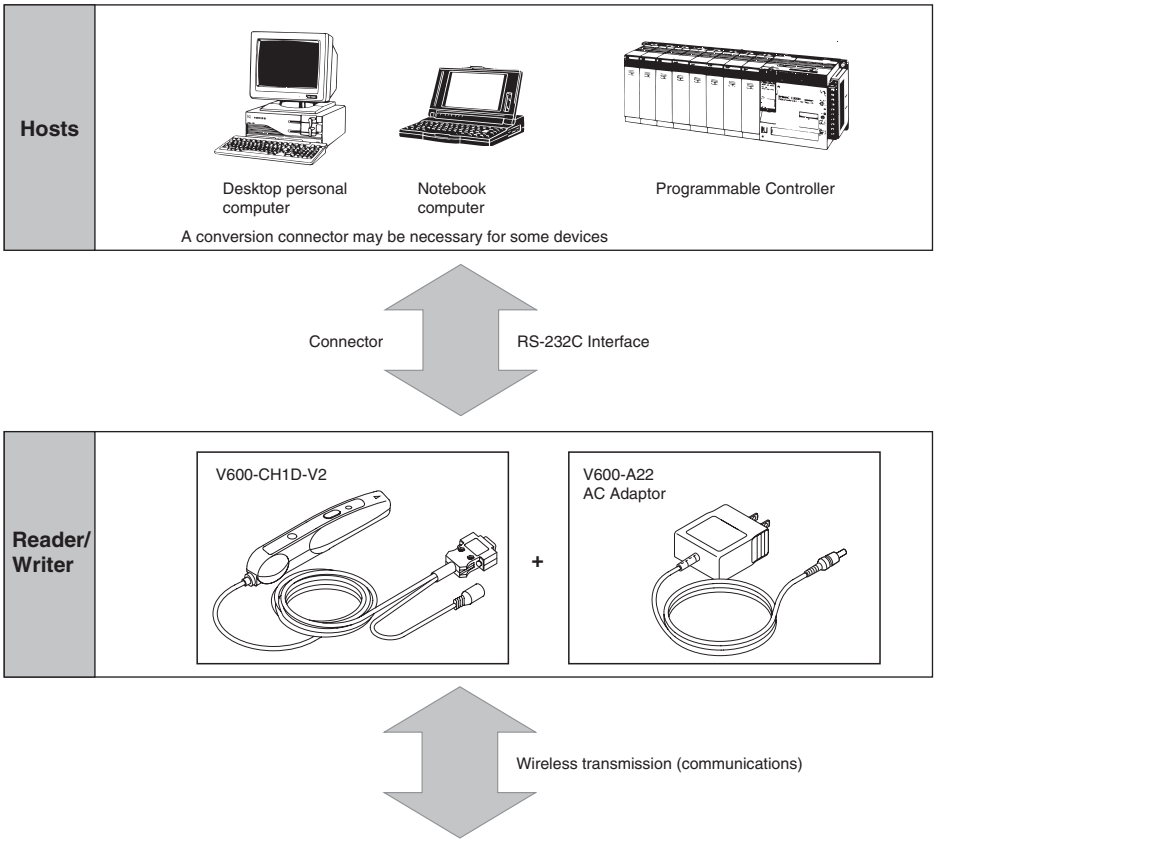
Host Communications Interface Specifications

Item	Specifications
Connector	9-pin D-sub connector (IBM or PC/AT compatible) (See note 1.)
Standard	RS-232C
Transmission connection	1:1
Communication method	2-wire, half duplex
Synchronization method	Asynchronous (stop bits: 1 or 2) (See note 2.)
Baud rate	2400/4800/9600/19200/38400 bps (See note 2.)
Transmission code	ASCII (7-bit) or 8-bit JIS code (See note 2.)
Transmission control protocol	1:1
Error detection	Vertical parity (even, odd, none) (See note 2.)

Note: 1. To convert to a 25-pin connector, use a product equivalent to the SGC-X9P/25P-2 (mfd. by Sun Hayato).

2. Set according to the setting command.

System Configuration



Functions

- User-specified data stored in Data Carriers can be read and written.
- Special commands enable reading and writing across the memory areas for multiple addresses in one operation.
- Communications with a Data Carrier can be started with commands from the host or with a start button on the Reader Writer
- Japanese Kanji codes can be written and then automatically converted for display when reading.

Operation

Transmission Distances (Recommended Combinations)

Transmission with the currently available V600-series Data Carriers is possible.

Data Carrier (dimensions: mm)		V600-CH1D
EEPROM	**V600-D23P53 (Dia. 8 × 5)**	0 to 2.5 mm
	V600-D23P54 (Dia. 12 × 6)	0 to 4 mm
	V600-D23P55 (Dia. 8 × 5)	0 to 10 mm
	V600-D23P61 (36 × 24 × 6)	0 to 11 mm
	V600-D23P66N (34 × 34 × 3.5)	0 to 17 mm
	V600-D23P66SP (95 × 36.5 × 6.5)	0 to 12 mm
	V600-D23P71 (86 × 54 × 1.5)	0 to 25 mm
	V600-D23P72 (50 × 34 × 1.5)	0 to 23 mm
S-RAM	**V600-D8KR12 (65 × 40 × 15)**	0 to 25 mm
	V600-D8KR13	0 to 20 mm
	V600-D2KR16 (65 × 40 × 5)	0 to 10 mm
	V600-D8KR04 (86 × 54 × 20)	0 to 35 mm
	V600-D8KF04	0 to 18 mm

Note: 1. Data Carrier Installation Conditions

V600-D23P53/P54:	Embedded in iron.
V600-D23P55:	Embedded in resin.
V600-D23P61:	Metal (iron) on the back surface of the Data Carrier
V600-D23P66N/P66SP/P71/P72:	Resin (no metal) on the back surface of the Data Carrier
V600-D8KR04/R12/R13/D8KF04:	Metal (iron) on the back surface of the Data Carrier
V600-D2KR16:	Data Carrier installed on a bracket and attached to an aluminum plate

2. When using the Data Carrier at temperatures lower than −10°C, transmission may not be possible in areas close to the Data Carrier. In this case, move the Reader Writer away from the Data Carrier.

Diagnostic Functions

Diagnostic functions	Checks for CPU errors, memory errors, and transmission errors.

Precautions

⚠ CAUTION

Use only the specified AC Adapter (V600-A20). If any other AC Adapter is used, the Reader Writer may malfunction or be damaged, or a fire may result.

General Precautions

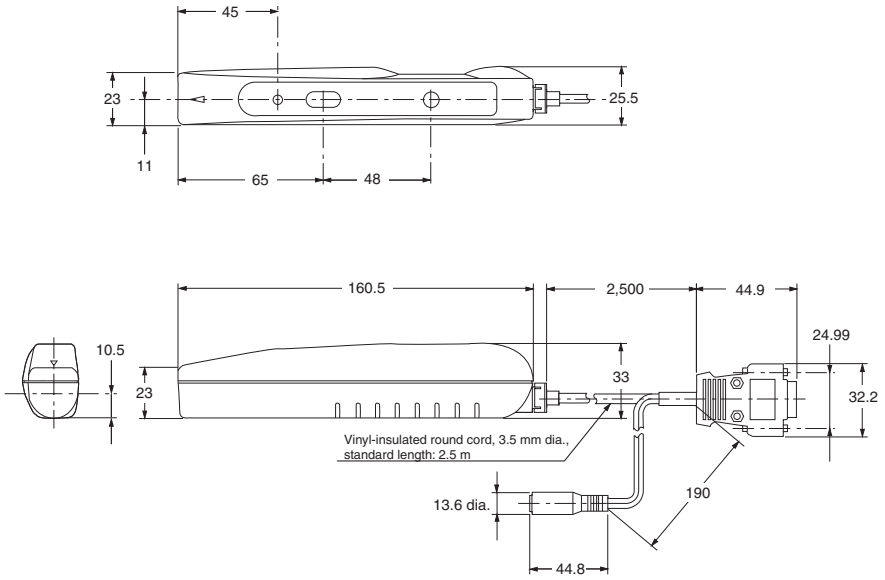
Do not do the following. The product may be damaged.

- Use submersed in water or in a high-water-pressure environment.
- Place excessive strain on cables by pulling on them.
- Expose the end of the main unit to shock.
- Press on the activate switch with your nail or a metal object.

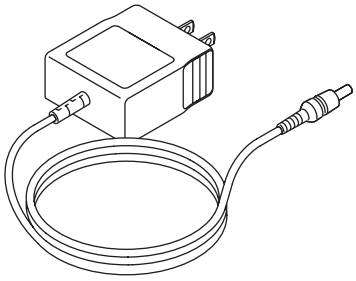
Dimensions

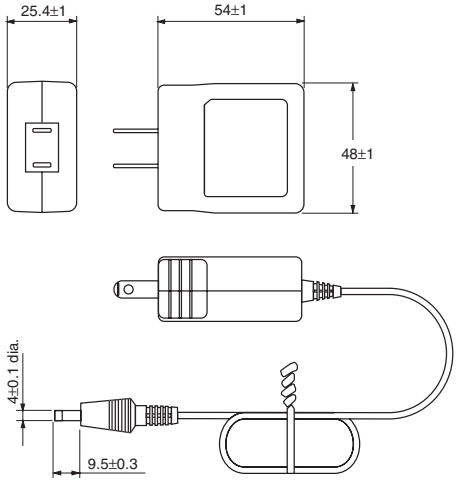
Note: All units are in millimeters unless otherwise indicated.

Reader Writers



V600-A22 AC Adapter





V600-series Data Carriers

Refer to Auto-Identification Components Group Catalog (Cat. No. Q131).

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

READ AND UNDERSTAND THIS DOCUMENT

Please read and understand this document before using the products. Please consult your OMRON representative if you have any questions or comments.

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

LIMITATIONS OF LIABILITY

OMRON SHALL NOT BE RESPONSIBLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.

In no event shall responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

SUITABILITY FOR USE

THE PRODUCTS CONTAINED IN THIS DOCUMENT ARE NOT SAFETY RATED. THEY ARE NOT DESIGNED OR RATED FOR ENSURING SAFETY OF PERSONS, AND SHOULD NOT BE RELIED UPON AS A SAFETY COMPONENT OR PROTECTIVE DEVICE FOR SUCH PURPOSES. Please refer to separate catalogs for OMRON's safety rated products.

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the product.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

PERFORMANCE DATA

Performance data given in this document is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

CHANGE IN SPECIFICATIONS

Product specifications and accessories may be changed at any time based on improvements and other reasons.

It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the product may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

ERRORS AND OMISSIONS

The information in this document has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

COPYRIGHT AND COPY PERMISSION

Cat. No. Q105-E1-05 In the interest of product improvement, specifications are subject to change without notice.

OMRON Corporation
Industrial Automation Company

Sensing Devices Division H.Q.
Industrial Sensors Division
Shiokoji Horikawa, Shimogyo-ku,
Kyoto, 600-8530 Japan
Tel: (81)75-344-7022/Fax: (81)75-344-7107

0107