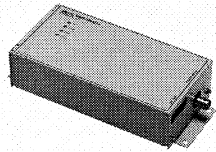


Model V640-HAM11

CIDRW System Amplifier



2002

NOTICE

1. Ensure safety, be absolutely sure to follow the instructions below:

- (1) Never use the product in an environment where combustible or explosive gas is present.
- (2) Please separate from a high-pressure equipment and the power equipment to secure the safety of the operation and maintenance.
- (3) Please obtain the cover for former place after wiring.
- (4) In the installation, please tighten the screw surely.
- (5) Please do not insert foreign bodies such as water and the wires from the space of the case.
- (6) Please do not dismantle, repair or modify this product.
- (7) Please process as industrial waste when you abandon this product.

2. About installation site
Do not install the V640-HAM11 in the locations subject to the following conditions.

- (1) Place where direct sunshine strikes
- (2) Place with corroded gas, dust, metallic powder, and salinity
- (3) Place with condensation due to rapid temperature fluctuations.
- (4) Place with condensation due to high humidity.
- (5) Place where vibration and impact more than being provided by specification are transmitted directly to main body.
- (6) Place with spray of water, oil, and chemical medicine.

3. About wiring

- (1) Before starting a wiring work or disconnecting a cable, be sure power OFF the product.
- (2) To avoid static-induced failure, wear a wrist band or equivalent means to release a static charge before touching a terminal or a signal line within a connector.

4. About cleaning

- (1) NEVER use an organic solvent such as thinner or benzene, as it will attack resin components or case coating.

5. About protective conductor wiring

- (1) Use an appropriate ground. An insufficient ground can affect V640-HAM11 operation or result in damage to V640-HAM11.

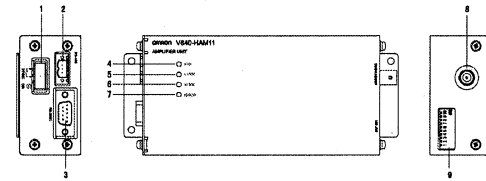
6. About the communication range and time

- (1) Do the communication test with Transponder in the installation environment because the metal, noise and ambient temperature around V640-HS61 damage to the communication range and time.
- (2) Install V640-HS61 and Transponder in the appropriate distance because the communication range can change by the difference of Transponder specifications.

General specifications

Characteristic	Specification
Supply voltage	24 VDC, +10%, -15%
Current consumption	150 mA max
Protection rating	IP20 (IEC 60529)
Ambient temperature	Operating: 0°C to +40°C Storage: -15°C to +65°C (No freezing, No dew condensation)
Ambient humidity	Operating/ Storage: 35% to 85% (No freezing, No dew condensation)
Insulation resistance	20MΩ min. (100V DC for appliance) (between power supply terminal and frame grounding terminal)
Dielectric	1000V AC (50/60Hz, for 1 min.) leak current consumption 5mA max. (between power supply terminal and frame grounding terminal)
Vibration resistance	10 to 150Hz, 0.20mm double amplitude, acceleration 15m/s ² , with 10 sweeps of 8min each in 3 directions
Shock resistance	150m/s ² , 3 times each in 6 directions
Mounting system	Secured with four M4 screws. (tightening torque: 0.6N-m to 1.2 N-m)

Names and functions



RS-232C port (3)

This port is for connection to the host or the CIDRW controller: V700-L21 according to RS-232C interface standard.

MRS-485 port (2)

If two or more Amplifier units are connected to one RS-232C port of a host or a CIDRW controller: model V700-L21, this RS-485 port is connected to a RS-485 port on another amplifier unit. An RS-485 port (if any) on the host can be connected to this port. However the RS-232C port and the RS-485 port are unable to be used at the same time.

CIDRW head connection port (8)

A port dedicated to connection of a CIDRW head.

Status indicators (4 -7)

Four indicator lamps (RUN, COMM, NORM, ERR) indicate the current operating status of the amplifier unit.

RUN	Remains stably lit as long as the link unit is operating normally.
COMM	Remains lit during the communication with a host or an ID tag.
NORM	Lights when the communications with an ID tag are successful.
ERR	Lights when the communications with an host or an ID tag are failed.

Setup DIP-SW (9)

This switch array allows the operator to assign ID No. to amplifier unit and define various operating conditions. DIP-SW settings: factory-setting is all OFF

No.	Description	Meaning (Content within a box represents factory-setting)
1	Node No.1	01 ~ 31 No. 1 is LSB, and No. 5 is MSB.
2	Node No.2	Ex. DIP-SW Settings for the UNIT No.4
3	Node No.3	DIP-SW No. No.1 No.2 No.3 No.4 No.5 ON ON OFF OFF OFF
4	Node No.4	
5	Node No.5	
6	Baud rate setting 1	38400 / 19200 / 9600 / 4800bps
7	Baud rate setting 2	[ON,ON][ON,OFF][OFF,OFF][OFF,ON] : [No7, No6]
8	Reserved	Please turn off this SW.
9	Reserved	Please turn off this SW.
10	RS485 terminator	OFF / ON

- * Set the RS-485 terminator setting to ON for the amplifier units on both ends of multidrop, and to OFF for other units. If only one amplifier unit is operated, set the terminator setting to ON.

24VDC power terminals

- * Recommended cable : AWG20 - 24
- * Recommended connector : Model 1-178288-3 (Tyco Electronics Co.)
- * Recommended compression ring : Model 175217-3 (Tyco Electronics Co.) (These connector and compression ring are supplied with model V640-A90.)
- * Recommended 24 V power supply : Model S82K-01524 (OMRON)

- * Use the product below as a crimping tool for crimping the compression ring. Model 919601-1 (Tyco Electronics Co.)

Cables for RS-485 port

- * Recommended cable : Model MVVS 2CX0.5SQ (Tachii Densen Co.)
- * Recommended compression ring : Molde AI0.5-8WH (Phoenix Contact Co.)

- * The following product is recommended as a compression ring for connecting two cables to one terminal. Model AI-TWIN2 ~0.5-8WH (Phoenix Contact Co.)

- * Use the product below as a crimping tool for crimping the compression ring. Model CRIMPFOX UD6 (Phoenix Contact Co.)

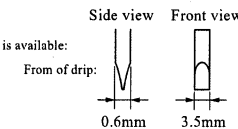
How to connect cables

- ① Fit a compression ring to the stripped section of each cable. Next, being sure of the connector orientation, insert each cable into a corresponding hole on the connector.

- ② Securely fasten each cable using the cable locking screw on the connector.

An ordinary screwdriver whose shank is tapered at the tip does not go all the way into the hole. Use a miniature flat-blade screwdriver with a straight shank. Tighten the cable locking screws at an appropriated tightening torque (approx. 0.3 N-m).

The following purpose-built screwdriver is available:
OMRON: Model XW4Z-00C

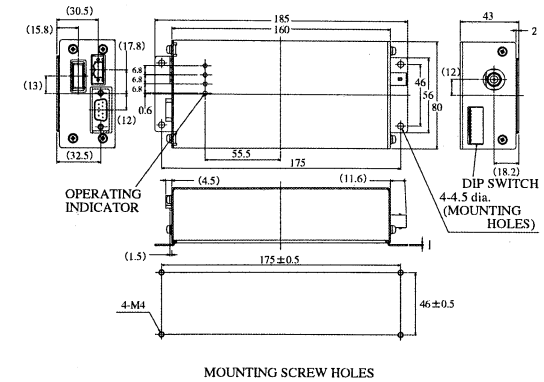


- ③ Connect the connector to the amplifier unit together with the cables.

Match the orientation of amplifier unit side connector with that of cable side connector, insert the cable side connector all the way, and then tighten the connector lock screws.

- ④ When removing the connector, fully loosen the two lock screws and draw out it straight by holding the protrusions on connector. If the connector does not easily come loose, draw it out while holding down the link unit proper.

Dimensions



material SECC (Unit: mm)

* Be sure to limit the tightening torque for the M4 screws as 0.6 N-m to 1.2 N-m.