

COMMUNICATION LEVEL CONVERTER
FOR RS-422A/RS-232C

COM-100A

INSTRUCTION MANUAL

NOTE : Arrange that this manual will be handed to person in charge of the controller.
Specification subject to change without notice.

MODEL & CODES

Model	Code	Description
COM-100A	-□	Communication level converter for RS-422A/RS-232C
Mounting	R	Rack mounting type
	W	Wall mounting type

MOUNTING

1. Cautions for Mounting

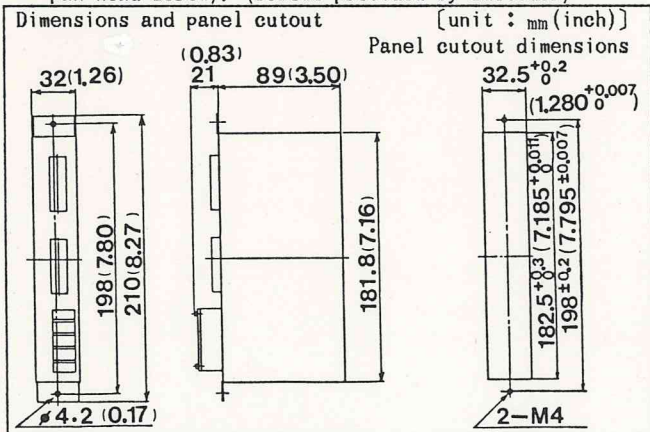
Avoid the following locations where the controller is mounted.

- Location where ambient temperature is more than 50°C (122°F) or less than 0°C (32°F).
- Location where much dust exists and where corrosive gas is generated.
- Location where strong vibration and shock exist, where flooding and oil splash exist and where humidity is high.
- Location where inductive disturbance is large and other location where bad influence is exerted on electric circuit.

2. Mounting

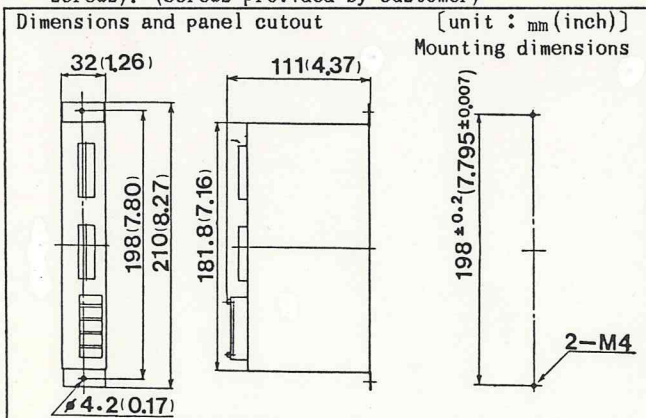
Rack mounting type (COM-100A-R)

- Make cutouts in the panel corresponding to the number of converters to be mounted by referring to panel cutout dimensions.
- Insert the converter into the cutout from the panel front.
- Using a Phillips screwdriver, secure the converter from the terminal side with 2 setscrews (M4×6 SEMS pan-head screw). (Screws provided by customer)



Wall mounting type (COM-100A-W)

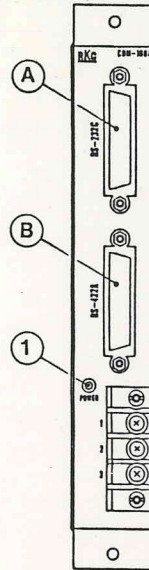
- Drill holes corresponding to the number of converters to be mounted by referring to panel cutout dimensions.
- Using a Phillips screwdriver, secure the converter from the terminal side with 2 setscrews (M4×6 SEMS pan-head screws). (Screws provided by customer)



Thank you very much for your purchasing our "COM-100A communication level converter for RS-422A/RS-232C". When it is delivered, check its external appearance and function to make sure that no damage exists. Do not touch or adjust other portions than those instructed in this manual.

This controllers is manufactured under strict quality control, and then is shipped. However, if there are any trouble found and suggestions to be made, contact your nearest agent or RKC.

NAME OF PARTS & TERMINALS



Terminal plate

Name of parts

- ①. Power lamp
- (A). Connector for RS-232C interface
- (B). Connector for RS-422A interface

Terminals

Terminals	Contents
1	Power supply voltage terminals AC 90 to 264V (including power supply variation)
2	
3	

WIRING

• Cautions for wiring

- Separate instrument power cable from electrical equipment power cable as much as possible to avoid an influence of noise.
- In order to lessen a bad influence caused by noise, twist instrument power cables at close intervals. (The closer, the more effective.)

• Compression terminal lug

Space of fitting a compression terminal lug is 7.4mm×11.3mm (0.29inch×0.44inch). Therefore, use the lug suitable for a screw of M3.

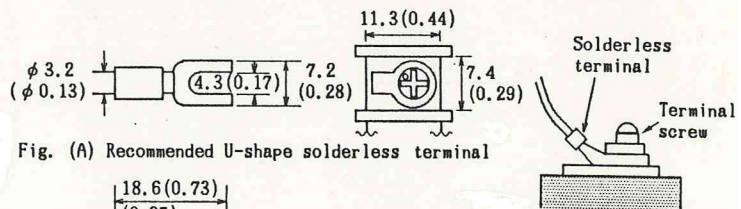


Fig. (A) Recommended U-shape solderless terminal

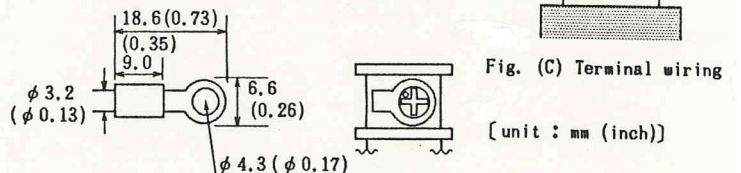


Fig. (B) Recommended round solderless terminal

Fig. (C) Terminal wiring

[unit : mm (inch)]

Cautions :

- When the instrument is installed in a location where much vibration and shock exist, use ring type compression lugs, since spade type compression lugs may be disconnected from the terminals.
- If there is no much space for wiring, bend the lug as shown in Fig. (c)

CONNECTION

This device supports communications between the RS-232C and RS-422A interfaces. When connecting to an other instrument, use the attached communication connector.

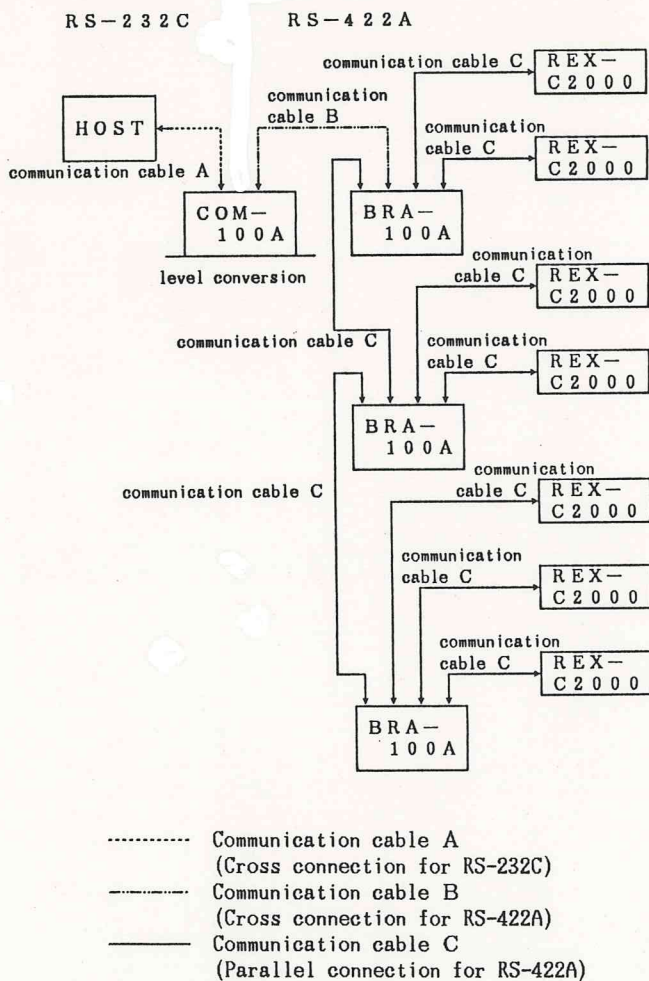
- ① Loosen the plug case screws, connect the cable core wires to the relevant connector pins, and mate the plug case with the wired connector before tightening the screws with a screwdriver.
(The cable is provided by the customer. See section "CONNECTION CABLE".)
- ② Plug the communication connector connected with the cable ① into the instrument connector (See the terminal plate diagram.)
- ③ Then, using a screwdriver, secure the connector with 2 upper and lower screws.

Accessories

Connector ...HDBB-25P (Hirose Electric Co., Ltd. or equivalent)
Plug case ...HDB-CTF (Hirose Electric Co., Ltd. or equivalent)

CONNECTION CABLE

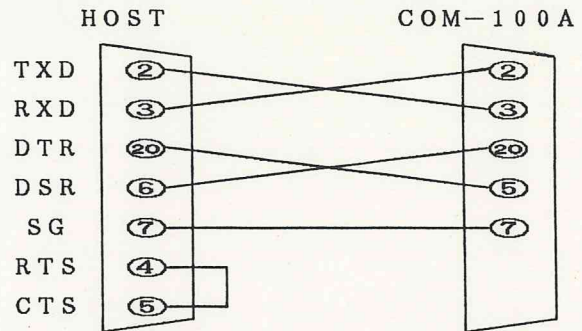
This is a connection example when the micro-computer based DDC multi-controller "REX-C2000" and the communication bus-line junction box "BRA-100A" are used.



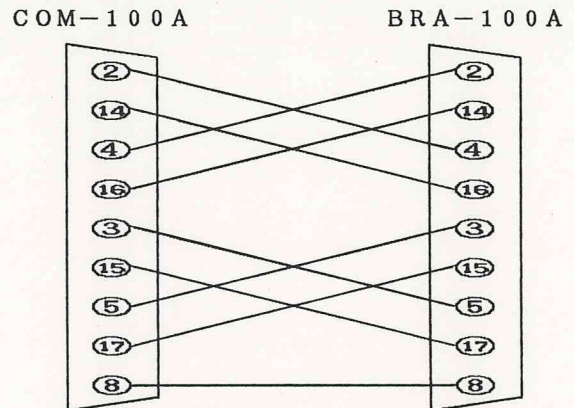
REX-C2000 incorporates a communication function via RS-422A (conforming to EIA Standard) and can be connected up to 7sets. Since and interface with a host computer is RS-232C, COM-100A is used for conversion to RS-422A.

Branching by BRA-100A can extend transmission distance between COM-100A and BRA-100A to some extent and also makes possible the multi-drop connection of REX-C2000.

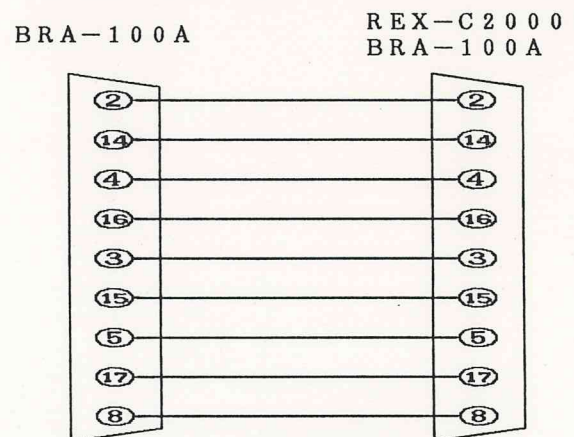
1. Communication cable A (Cross connection for RS-232C)



2. Communication cable B (Cross connection for RS-422A)

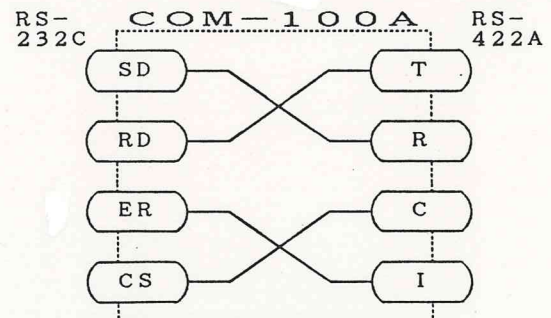


3. Communication cable C (Parallel connection for RS-422A)



INTERNAL CONNECTION

Signal wires are cross-connected within this converter.



※ For details of RKC's REX-C2000 and BRA-100A, see their catalogs.

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