

BEFORE USE

Thank you for choosing us. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact our sales office or representatives.

This product is for use in general industrial environments, therefore may not be suitable for applications which require higher level of safety (e.g. safety or accident prevention systems) or of reliability (e.g. vehicle control or combustion control systems).

For safety, installation and maintenance of this product must be conducted by qualified personnel.

■ PACKAGE INCLUDES:

RS-232C/RS-485 Converter..... (1)

■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

POINTS OF CAUTION

■ CONFORMITY WITH EC DIRECTIVES

- The equipment must be mounted inside a panel.
- Insert noise filters. TDK Model ZCAT3035-1330 or equivalent for the RS-232C, RS-485 and power input cable are recommended.
- The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity.

■ POWER INPUT RATING & OPERATIONAL RANGE

- Locate the power input rating marked on the product and confirm its operational range as indicated below:
24V DC rating: 24V ±10%, approx. 2W

■ GENERAL PRECAUTIONS

- Before you remove the module, turn off the power supply and input signal for safety.

■ ENVIRONMENT

- Indoor use
- When heavy dust or metal particles are present in the air, install the module inside proper housing with sufficient ventilation.
- Do not install the module where it is subjected to continuous vibration. Do not apply physical impact to the module.
- Environmental temperature must be within -5 to +60°C (23 to 140°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.
- Be sure that the ventilation slits are not covered with cables, etc.

■ WIRING

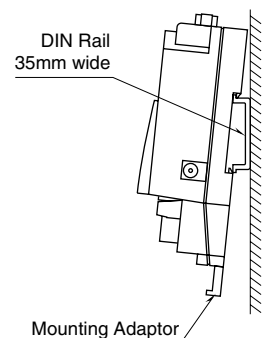
- Use type CPEV-S twisted-pair cables of 0.9 diameters. When the module is located at an end of transmission line via twisted-pair cables, short across the terminals 2 – 3.
- Wrong connection may damage the module.
- Do not connect cables to moving parts or pull them tightly.
- Do not install cables (power supply, input and output) close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

INSTALLATION

■ DIN RAIL MOUNTING

Set the body so that its mounting adaptor is at the bottom. Pull down the adaptor.

Position the upper hook at the rear side on the DIN rail and push in the lower. Push back the adaptor.



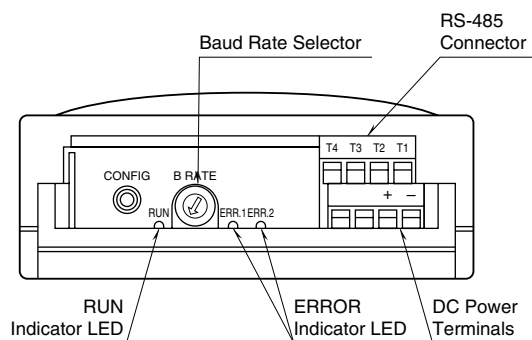
■ WALL MOUNTING

Set the body so that its mounting adaptor is at the bottom. Pull down the adaptor.

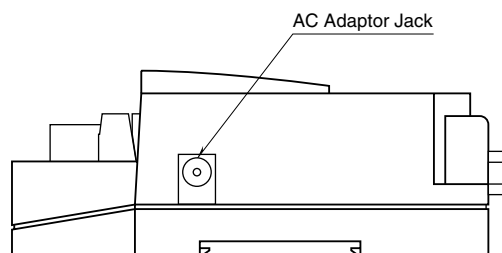
Refer to "EXTERNAL DIMENSIONS."

COMPONENT IDENTIFICATION

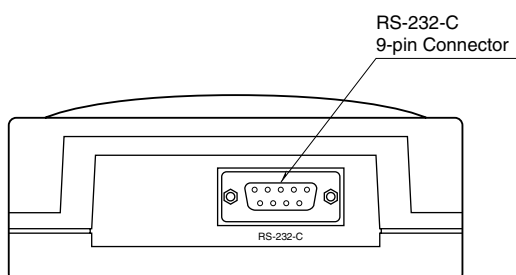
FRONT VIEW



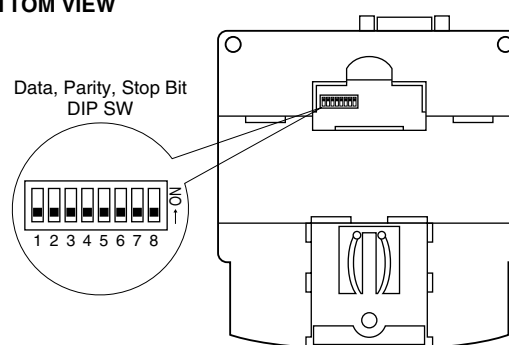
SIDE VIEW



REAR VIEW



BOTTOM VIEW



BAUD RATE ROTARY SW SETTINGS

| ROTARY SW POSITION | BAUD RATE (bps) |
|--------------------|-----------------|
| 0 | 300 |
| 1 | 600 |
| 2 | 1200 |
| 3 | 2400 |
| 4 | 4800 |
| 5 | 9600 |
| 6 | 14.4 k |
| 7 | 19.2 k |
| 8 | 28.8 k |
| 9 | 38.4 k (*) |
| 10 | 57.6 k |
| 11 | 76.8 k |
| 12 thr. 15 | Not Used |

*Factory setting

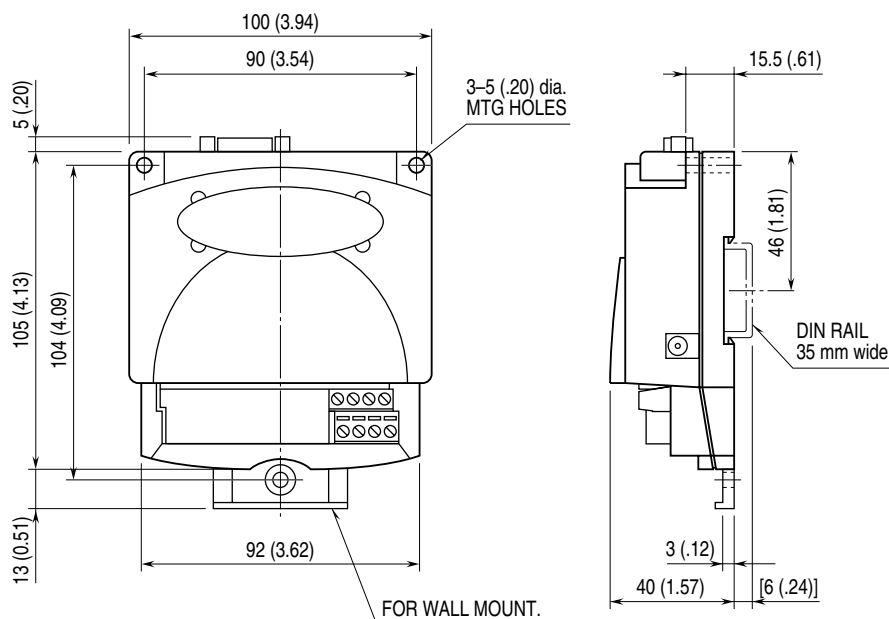
When using the R2K-1 in conjunction with our PC Recorder system, no change of DIP switch positions from the factory setting is required.

DATA, PARITY & STOP BIT DIP SW SETTINGS

| DIP SW | PARAMETER | SETTING | CONTENTS |
|--------|---------------|---------|----------------------|
| 1 | Data Length | ON | 7 bits |
| | | OFF | 8 bits (*) |
| 2 | Parity | ON | Without |
| | | OFF | With (*) |
| 3 | Parity | ON | Even |
| | | OFF | Odd (*) |
| 4 | Stop Bit | ON | 2 bits |
| | | OFF | 1 bit (*) |
| 5 | Not Used | ---- | ---- |
| 6 | Not Used | ---- | ---- |
| 7 | Not Used | ---- | ---- |
| 8 | Error Through | ON | Error Through OFF |
| | | OFF | Error Through ON (*) |

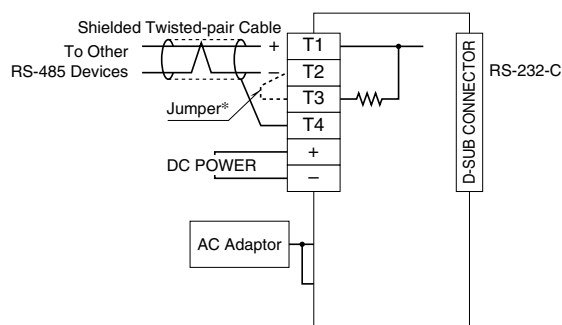
*Factory setting

EXTERNAL DIMENSIONS unit: mm (inch)



TERMINAL CONNECTIONS

Connect the module referring to the connection diagram.



*When the device is located at the end of a transmission line via RS-485, close across the terminal T2 – T3 with the attached jumper pin (or with a leadwire).
Note: RS-485 and power terminals are not isolated from each other.
Use of the lightning surge protectors is recommended for protecting the device from induced surges.

■ RS-232C INTERFACE



| ABBR. | PIN NO. | EXPLANATION OF FUNCTION |
|---------|---------|--|
| BA (SD) | 2 | Transmitted Data |
| BB (RD) | 3 | Received Data |
| AB (SG) | 5 | Signal Common |
| CB (CS) | 7 | Clear to Send |
| CA (RS) | 8 | Request to Send |
| | 1 | Not Used. |
| | 4 | DO NOT connect. Connecting may cause malfunctions. |
| | 6 | |
| | 9 | |

CHECKING

- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Power input: Check supply voltage. For DC power input, check voltage across the terminal 29 – 30.