



2500 Series[®] Compact System



2500C-RADP-RBC Profibus DP Remote Base Controller



| Specifications | | |
|-------------------------|--|----------|
| Ports | Profibus | USB |
| Ports | 9 Pin Female | USB Port |
| Profibus Baud Rates | 9600, 19.2K, 93.75K, 187.5K, 500K, 1.5M, 3.0M, 6.0M, 12M | |
| Profibus Port Isolation | 1500VDC | |

| Output State Selection | | |
|---|-----------------------------------|---|
| Determines state of outputs when Profibus IO channel is lost: | OFF All outputs are turned off | FREEZE All outputs hold their last value |

| RBC Configuration & Diagnostic Data | |
|-------------------------------------|--|
| Dipswitch Settings | RBC Station Address |
| Software-Set Parameters | Discrete I/O Interval Word I/O Update Factor Ignore Mismatch Mode |
| Diagnostic Data | Station Status (3 bytes) Master Address (1 byte) Ident Number (1 byte) Extended Diagnostics (9 bytes) |

| General Module Specifications | |
|--------------------------------|---|
| ESD Protection | IEC 1000-4-2 Level 4 |
| Operating Temperature | 0°C to 60°C (32°F to 140°F) |
| Storage Temperature | -40°C to 85°C (-40°F to 185°F) |
| Relative Humidity | 5% to 95% (non-condensing) |
| Agency Approvals Pending | UL, ULC, UL Class 1, Div 2, CE |
| Shipping Dimensions and Weight | 223.84mm x 109.86mm x 80.96mm, 0.384kg |
| Module Installation Dimensions | See Dimension Diagram in this bulletin |

DESCRIPTION

The 2500C-RADP-RBC 500 Base Adapter for the Compact Profibus Remote Base Controller allows a Texas Instruments Series 500 I/O base to function as a slave node on a Profibus DP I/O network that complies with the PROFIBUS standard.

FEATURES

- Provides mechanical and electrical adaptation of CTI 2500 Series[®] Compact RBCs to operate in a Series 500 base
- Compatible with CTI 2500 Series[®], Simatic[®] 505, Siemens[®] S5 and S7, as well as other Profibus masters
- Allows direct replacement of 500-5114 / 5114A RS485 RBCs or replacement of 500-2114 / 2114A Coaxial RBCs by Profibus
- Supports Profibus communication speeds from 9600 baud (max cable distance per segment: 1200m) up to 12 Mbaud (max cable distance per segment: 100m)
- GSD file is provided with the RBC to allow configuration by the Profibus Configurator
- LED display for error codes and station address

| 2500C-RBC-RBC Default Shipment Settings | |
|---|---------------------------|
| Slave Address | 0 (User must set Address) |
| Output State Selection JP1 | Freeze |

IMPORTANT NOTE: When configuring a Compact I/O Profibus base on CTI 2500 Series[®] or Simatic[®] / TI 505 PLCs, you must use PLC Workshop for 505, version 4.32 or higher. Be sure to download and use the latest Compact I/O Profibus GSD file from the CTI website.



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The upper LED display on the front panel of the RBC shows a single digit code which indicates the module status (see the Table below for a complete list and definition of the error codes). The lower 3 digit led display shows the hardware Profibus address as configured by the address dip switches.

LED Error Code Definition Table

| Display | Definition | Communications to RBC | Comment / Action |
|---------|------------------------------------|-----------------------|--|
| 0 | Normal Operation | OK | Fully Operational and Online to master. |
| 1 | Internal RAM Diagnostic Failure | None | Serious malfunction. Place system in safe state and consult CTI technical support |
| 2 | Module Mismatch | OK | I/O modules installed do not match the expected configuration in the master. |
| 3 | Profibus Communications Failure | None | There is no communication with the master. Place the system in a safe state. Check cabling and connection to the master. |
| A | Internal MX RAM Diagnostic Failure | None | Serious malfunction. Place system in safe state and consult CTI technical support |
| B | External MX RAM Diagnostic Failure | None | Serious malfunction. Place system in safe state and consult CTI technical support |
| C | Profibus RAM Diagnostic Failure | None | Serious malfunction. Place system in safe state and consult CTI technical support |
| F | Flash Diagnostic Failure | None | Serious malfunction. Place system in safe state and consult CTI technical support |

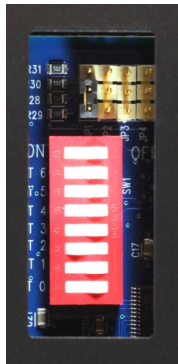
NOTE:
 Series 500 RBCs can be replaced with CTI 2500 Series[®] RBCs. We have tested this replacement solution in systems containing Series 500 analog and digital I/O modules. Because of the difficulty in obtaining hardware, we are not able to test with the all various Series 500 special function modules which were originally available. If your application uses Series 500 special function modules, please contact CTI to discuss how we can verify support of your configuration.

Note: For more detailed information on using the 2500C-RADP-RBC, refer to CTI's 2500C-RBC-PRF User Guide.





2500C-RADP-RBC Profibus DP Remote Base Controller

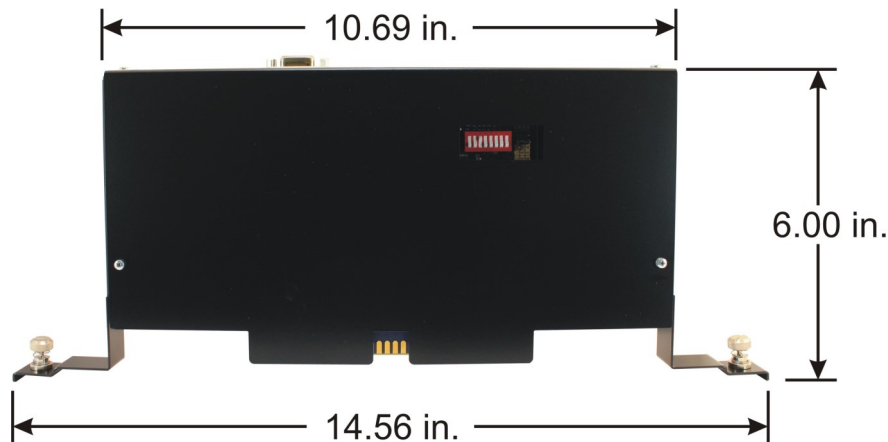


Configuring the Module

There are four steps to configuring the module and getting it operational on a Profibus network:

1. Setting the module option switches
2. Setting the output state on communication loss (freeze jumper – JP1)
3. Setting Software parameters in Workshop
4. Configuring the remote base in Workshop

For detailed information on configuring a remote base with the 2500C-RADP-RBC, refer to Chapter 3 in the 2500C-RBC-PRF User Guide.



2500C-RADP-RBC Dimensions

Note: See the next page for a comparison in the depth dimensions required by the 2500C-RADP-RBC and the TI /Siemens[®] Series 500 RBCs.



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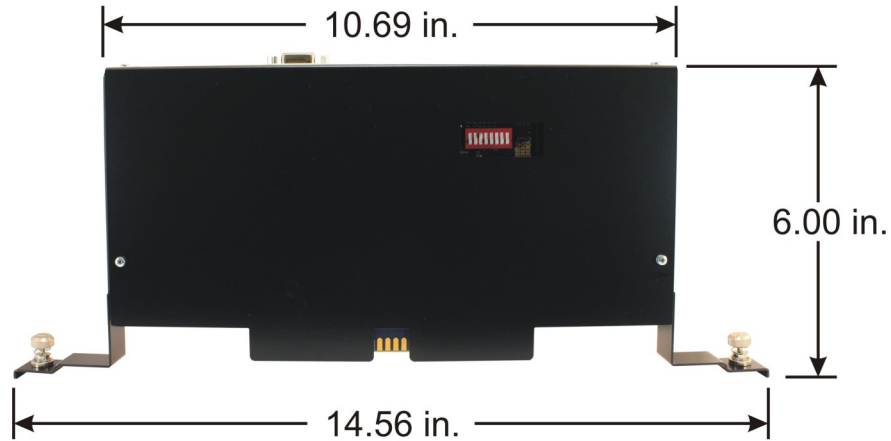


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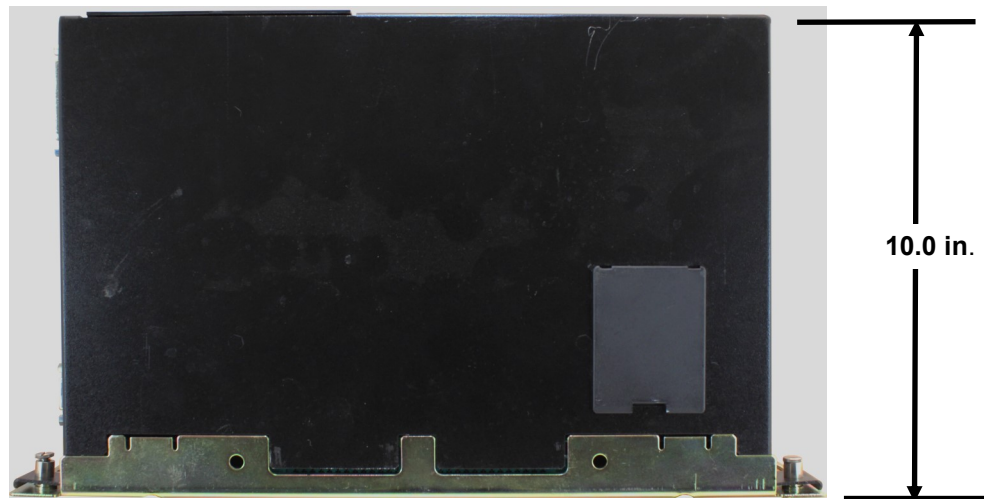


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Note: Add 1 3/4" in depth to allow for a standard 90° Profibus Connector plugged into the front of the module.



2500C-RADP-RBC Dimensions



Depth Required for a TI/Siemens[®] Series 500 RBC



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