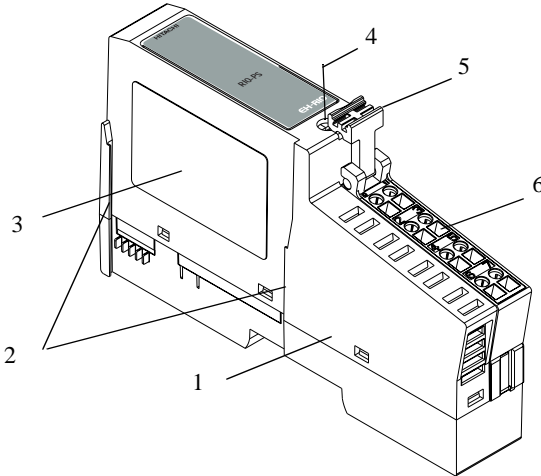


## Installation Instructions

### EH-RIO Power Supply (AC) (RIO-PS)



	Description		Description
1	RIO-PS Adapter Module	4	DIN Rail Locking Screw (orange)
2	Interlocking side pieces	5	RTB Removal Handle
3	Module label	6	Removable Terminal Block (RTB)

The power supply (AC) (RIO-PS) lets you change the field power distribution source for I/O modules to the right of the RIO-PS. This facilitates logical or functional partitioning of low-channel count, high I/O-mix applications using the RIO-DNP, RIO-DNA and RIO-PBA communication interfaces.

The RIO-PS power supply passes through all EH-RIO backplane signals except the internal power bus.

You can use the RIO-PS with a range of voltage inputs, including 5V dc to 250V dc and/or 24V ac to 240V ac applications and I/O modules.

---



EH-RIO is grounded through the DIN rail to chassis ground. Use zinc plated, yellow chromated steel DIN rail to assure proper grounding. Using other DIN rail materials (e.g. aluminum, plastic, etc.) which can corrode, oxidize or are poor conductors can result in improper or intermittent platform grounding.

---

### **Installing the Power Supply (AC) (PS)**

To install the PS on the DIN rail, proceed as follows.

1. Position the PS vertically above the DIN rail.
2. Engage the interlocking side pieces with the unit on the left.
3. Press down firmly to install the PS on the DIN rail.
4. The locking mechanism will lock the PS to the DIN rail.

If installing a replacement PS to an existing system:

1. Position the PS (1) vertically above the DIN rail.
2. Slide the PS down allowing the interlocking side pieces to engage the adjacent modules (both left and right sides).
3. Press firmly to seat the PS (1) on the DIN rail. The PS locking mechanism will snap into place.
4. To remove the PS from the DIN rail, pull up on the RTB removal handle (5) to remove the terminal block.
5. Use a small bladed screwdriver to rotate the DIN rail locking screw (4) to a vertical position.
6. This releases the locking mechanism. Then lift straight up to remove.

---

## European Communities (EC) Directive Compliance

If this product has the CE mark it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

### EMC Directive

This product is tested to meet the Council Directive 89/336/EC Electromagnetic Compatibility (EMC) by applying the following standards, in whole or in part, documented in a technical construction file:

- EN 50081-2 EMC — Generic Emission Standard, Part 2 — Industrial Environment
- EN 50082-2 EMC — Generic Immunity Standard, Part 2 — Industrial Environment

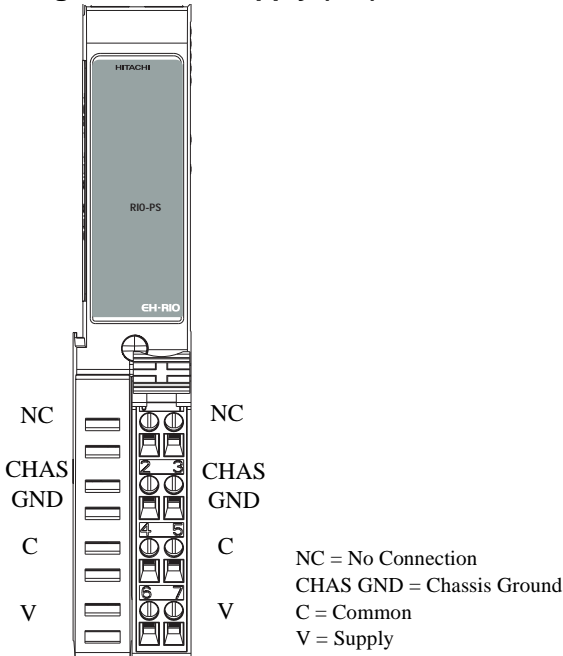
This product is intended for use in an industrial environment.

### Low Voltage Directive

This product is tested to meet Council Directive 73/23/EEC Low Voltage, by applying the safety requirements of EN 61131-2 Programmable Controllers, Part 2 - Equipment Requirements and Tests. For specific information required by EN 61131-2, see the appropriate sections in this publication, as well as chapter 9 on PLC installation in the user's manual for the Hitachi EH-150 Series PLC, publication NJI-281(X)E.

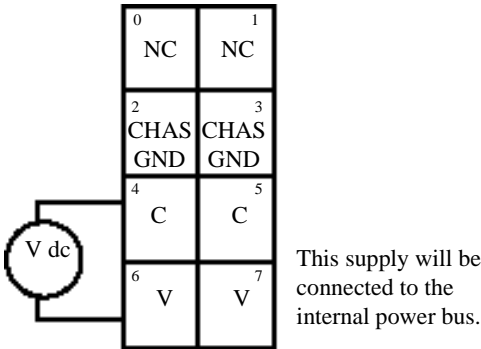
Open style devices must be provided with environmental and safety protection by proper mounting in enclosures designed for specific application conditions. See NEMA Standards publication 250 and IEC publication 529, as applicable, for explanations of the degrees of protection provided by different types of enclosures.

### Wiring the Power Supply (AC)



### Wiring the Power Supply (AC)

12/24V dc

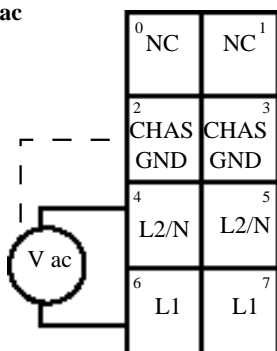


V = 12/24V dc, C = Common  
 CHAS GND = Chassis ground

Connect	Terminal
+V dc	6
-V dc	4
Chas Gnd	2

12/24V dc becomes the internal power bus for modules to the right.

### 120/240V ac



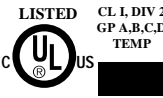



This supply will be connected to the internal power bus.

L2/N = Neutral, L1 = 120/240V ac  
 CHAS GND = Chassis ground

Connect	Terminal
L1	6
L2/N	4
Chas Gnd	2

120/240V dc becomes the internal power bus for modules to the right.

## Safety Approvals

C-UL and UL Hazardous Location Approval	Approbation d'utilisation dans des environnements dangereux par la C-UL/UL
<p>C-UL and UL certifies products for general use as well as for use in hazardous locations. <b>Actual C-UL and UL certification is indicated by the product label</b> as shown below, and not by statements in any user documentation.</p>	<p>La C-UL/UL certifie des produits pour une utilisation générale aussi bien que pour une utilisation en environnements dangereux. <b>La certification C-UL/UL en vigueur est indiquée par l'étiquette produit</b> et non par des indications dans la documentation utilisateur.</p>
<p>Example of the C-UL and UL certification product label:</p> 	<p>Exemple d'étiquette de certification d'un produit par la C-UL/UL :</p> 
<p>To comply with C-UL and UL certification for use in hazardous locations, the following information becomes a part of the product literature for this C-UL and UL-certified industrial control product.</p> <ul style="list-style-type: none"> <li>This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or non-hazardous locations only.</li> <li>The products having the appropriate C-UL and UL markings (that is, Class I, Division 2, Groups A, B, C, D) are certified for use in other equipment where the suitability of combination (that is, application or use) is determined by the C-UL and UL or the local inspection office having jurisdiction</li> </ul>	<p>Pour satisfaire à la certification C-UL/UL en environnements dangereux, les informations suivantes font partie intégrante de la documentation des produits de commande industrielle certifiés.</p> <ul style="list-style-type: none"> <li>Cet équipement ne convient qu'à une utilisation en environnements de Classe I, Division 2, Groupes A, B, C, D ou non dangereux.</li> <li>Les produits portant le marquage C-UL/UL approprié (c'est-à-dire Classe I, Division 2, Groupes A, B, C, D) sont certifiés pour une utilisation avec d'autres équipements, les combinaisons d'applications et d'utilisations étant déterminées par la C-UL/UL ou le bureau local d'inspection qualifié.</li> </ul>
<p><b>Important:</b> Due to the modular nature of a programmable control system, the product with the highest temperature rating determines the overall temperature code rating of a programmable control system in a Class I, Division 2, location. The temperature code rating is marked on the product label as shown.</p>	<p><b>Important:</b> De par la nature modulaire des systèmes de commande programmables, le produit ayant le code de température le plus élevé détermine le code de température global du système dans un environnement de Classe I, Division 2. Le code de température est indiqué sur l'étiquette produit.</p>
<p>: Temperature code rating: <b>LISTED</b></p>  <p>Look for temperature code rating here.</p>	<p>Code de température : <b>LISTED</b></p>  <p>Le code de température est indiqué ici.</p>
<p>The following warnings apply to products having C-UL and UL certification for use in hazardous locations.</p>	<p>Les avertissements suivants s'appliquent aux produits ayant la certification C-UL/UL pour une utilisation en environnements dangereux.</p>
<p><b>WARNING: Explosion Hazard</b></p> <ul style="list-style-type: none"> <li>Substitution of components may impair suitability for Class I, Division 2.</li> <li>Do not replace components unless power has been switched off or the area is known to be non-hazardous.</li> <li>Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.</li> <li>Do not disconnect connectors unless power has been switched off or the area is known to be non-hazardous. Secure any user-supplied connectors that mate to external circuits on this equipment by using screws, sliding latches, threaded connectors, or other means such that any connection can withstand a 15 Newton (3.4 lb.) separating force applied for a minimum of one minute.</li> </ul>	<p><b>AVERTISSEMENT : Risque d'explosion</b></p> <ul style="list-style-type: none"> <li>La substitution de composants peut rendre ce matériel inadapté à une utilisation en environnements de Classe I, Division 2.</li> <li>Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de remplacer des composants.</li> <li>Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.</li> <li>Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs fournis par l'utilisateur pour se brancher aux circuits externes de cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres, de sorte que les connexions résistent à une force de séparation de 15 Newtons (1,5 kg - 3,4 lb.) appliquée pendant au moins une minute.</li> <li>S'assurer que l'environnement est classé non dangereux avant de changer les piles.</li> </ul>
<p>C-UL and UL logo is a registered trademark of the Underwriters Laboratories.</p>	<p>Les sigles C-UL et UL sont des marques déposées de la Underwriters Laboratories.</p>

**Specifications - RIO-PS Power Supply (AC)**

Input Voltage Rating	12V dc, 24V dc nominal 10-28.8V dc range 120V ac, 240V ac nominal
Input Current	10A maximum
Indicators	None
Module Location	Between I/O modules in EH-RIO system Breaks power bus

**General Specifications**

Current	Pass through
Power Consumption	None
Power Dissipation	None
Thermal Dissipation	None
Isolation Voltage	1528V rms/V ac
Field Power Bus Supply Voltage	264V ac maximum, 12V dc, 24V dc, 10-28.8V dc range 120V ac, 240V ac nominal
Supply Current	10A maximum
Dimensions Inches (Millimeters)	3.00H x 1.00W x 5.25L (76.2H x 25.4W x 133.4L)
Environmental Conditions	
Operational Temperature	-20 to 55°C (-4 to 131°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Relative Humidity	5 to 95% noncondensing
Shock Operating	30g peak acceleration, 11(±1)ms pulse width
Non-operating	50g peak acceleration, 11(±1)ms pulse width
Vibration	Tested 5g @ 10-500Hz per IEC 68-2-6
Conductors Wire Size	14 AWG (2.5mm <sup>2</sup> ) - 22 AWG (0.25mm <sup>2</sup> ) solid or stranded wire rated @ 75° or higher 3/64 inch (1.2mm) insulation maximum

**Specifications continued on next page.**

Terminal Base Screw Torque	5-7 pound-inches (0.5-0.6Nm)
Field Wiring Terminations	0 - No Connection    1 - No Connection 2 - Chassis Ground    3 - Chassis Ground 4 - Common    5 - Common 6 - Supply    7 - Supply
Mass	4.38 oz/124.2 grams
Agency Certification (when product is marked)	C-UL Listed C-UL Class I, Division 2, Groups A, B, C and D certified UL Listed CE marked for all applicable directives. DeviceNet compatible as certified by ODVA, Inc.

**HITACHI**