



## **ProcessLogix Remote Termination Panel (RTP)**

(Catalog Number 1757-FIMRTP)

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### **Package Contents:**

- 1 remote termination panel (1757-FIMRTP) screws, washers and standoffs pre-assembled
- 2 DIN rail mounting brackets
- installation instructions
- instruction sheet

## Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of these products must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards. In no event will Allen-Bradley be responsible or liable for indirect or consequential damage resulting from the use or application of these products.

Any illustrations, charts, sample programs, and layout examples shown in this publication are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Allen-Bradley does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this publication, notes may be used to make you aware of safety considerations. The following annotations and their accompanying statements help you to identify a potential hazard, avoid a potential hazard, and recognize the consequences of a potential hazard:

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### WARNING



Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

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### ATTENTION



Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss.

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### IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

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**ATTENTION****Environment and Enclosure**

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 meters without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR Publication 11. Without appropriate precautions, there may be potential difficulties ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is supplied as "open type" equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure. Also, see the appropriate sections in this publication, as well as the Allen-Bradley publication 1770-4.1 ("Industrial Automation Wiring and Grounding Guidelines"), for additional installation requirements pertaining to this equipment.

**Rockwell Automation Technical Support**

If you need any assistance with the information found in this document, first call your local Rockwell Automation representative, then:

- Phone Support: (440) 646-5800
- Web Support: <http://www.ab.com>, under Support, click Product Support

**Your Questions or Comments about this Manual**

If you find a problem with this manual, please use the How are We Doing? form located in the Documentation section of Knowledge Builder to notify us.

## **Installing the 1757-FIMRTP**

### **Mount the RTP onto a DIN Rail**

Use the enclosed instruction sheet to attach the brackets and mount the RTP onto a DIN rail.

### **Mount the RTP with Optional Enclosure onto a DIN Rail**

Follow these steps to attach the brackets and enclosure, then mount the RTP onto a DIN rail:

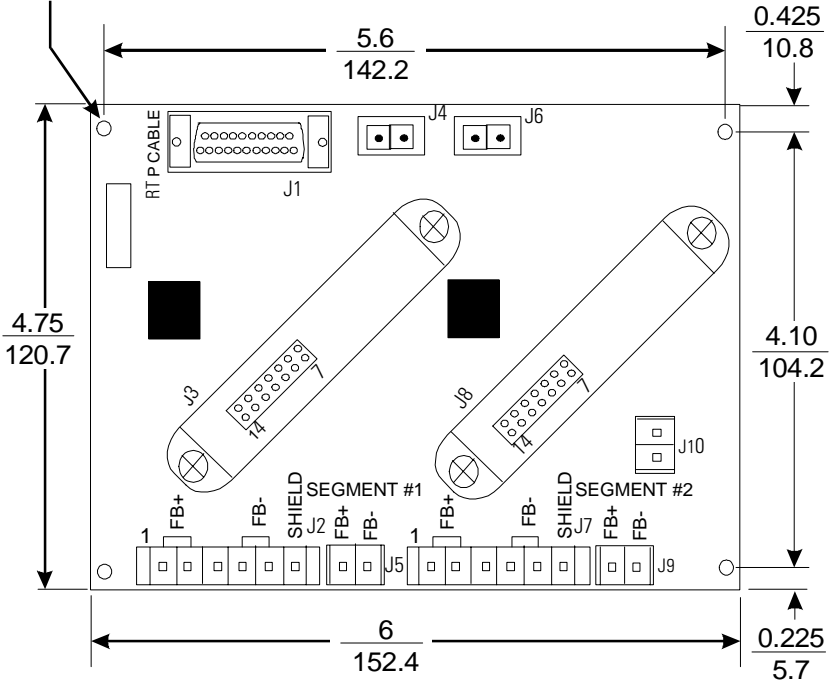
1. Replace the screws on the RTP with the longer screws shipped with the enclosure.
2. Seat the RTP into the enclosure by placing the screws through the pre-drilled holes in each corner of the enclosure.
3. Use the instruction sheet to attach the brackets and mount the RTP and enclosure onto the DIN rail.

## Mounting Dimensions

Reference:  $\frac{\text{Inches}}{\text{Millimeters}}$

Hole Size:

$\frac{0.156}{3.96}$



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## Wiring the RTP

### WARNING



When you connect or disconnect the RTP with field side power applied, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

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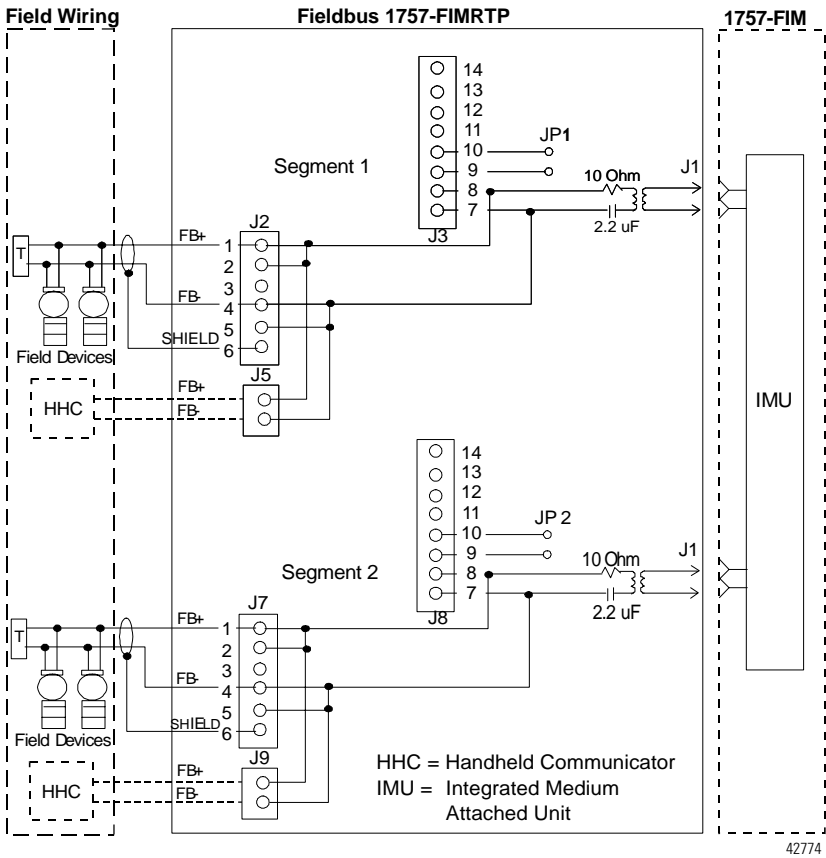
Use the following procedure and the wiring diagram, on page 7, to make wiring connections to the RTP:

1. Verify that the enclosure is connected to a protective earth ground using #8 AWG solid copper wire.

There should be metal to metal contact between the grounding bus bar and the enclosure as well as the DIN rails.

2. Observing polarity, connect the positive (+) lead for the fieldbus H1 link 1 cable to terminal J2-1 or J2-2 FB+ and the negative (-) lead to J2-4 or J2-5 FB-. Connect the cable shield to terminal J2-6 SHIELD or to the bus bar in the enclosure.
3. Observing polarity, connect the positive (+) lead for the fieldbus H1 link 2 cable to terminal J7-1 or J7-2 FB+ and the negative (-) lead to J7-4 or J7-5 FB-. Connect the cable shield to terminal J7-6 SHIELD or to the bus bar in the enclosure.
4. Connect the plug on the RTP cable from the FIM to the RTP Cable connector J1 on the RTP.

# Wiring Diagram for the RTP



## Connecting the RTP to the FIM

This procedure assumes that the 1757-FIM is installed. Use the following procedure to connect the RTP cable to the FIM:

1. Turn off the power supply in the chassis.

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**WARNING**

When you connect or disconnect any wiring to the FIM with power applied, an electrical arc can occur. This could cause an explosion in hazardous location installations.



Be sure that power is removed or the area is nonhazardous before proceeding.

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2. Plug one end of the RTP cable into the connector on the RTP (labeled J1 on page 5).
3. Plug the other end of the cable into the connector on the FIM, through the cutout in the door.
4. Turn on the power supply.



## Hazardous Locations

<p><b>The following information applies when operating this equipment in hazardous locations:</b></p>	<p><b>Informations sur l'utilisation de cet équipement en environnements dangereux:</b></p>
<p>Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.</p>	<p>Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.</p>
<p><b>WARNING</b></p>  <p><b>EXPLOSION HAZARD</b></p> <ul style="list-style-type: none"> <li>Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.</li> <li>Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.</li> <li>Substitution of components may impair suitability for Class I, Division 2.</li> <li>If this product contains batteries, they must only be changed in an area known to be nonhazardous.</li> </ul>	<p><b>AVERTISSEMENT</b></p>  <p><b>RISQUE D'EXPLOSION</b></p> <ul style="list-style-type: none"> <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 externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.</li> <li>La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.</li> <li>S'assurer que l'environnement est classé non dangereux avant de changer les piles.</li> </ul>

## Specifications

<b>1757-FIMRTP Specifications</b>											
RTP Maximum Power Requirements	None										
Fieldbus Current Available per Link	Limited by user-supplied power										
Terminators per Link	None										
H1 Terminal Connection Type	Compression										
RTP Dimensions	4.9" W x 6.1" L										
H1 Distance to Field Devices	Per Clause 22 of IEC 1158-22 specification Intrinsically safe distance limited by cable impedance (refer to MTL Application Brief AB003 for more details)										
Operating Temperature	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): 0 to 60°C (32 to 140°F)										
Storage Temperature	IEC 60068-2-1 (Test Ab, Un-packaged Non-operating Cold), IEC 60068-2-2 (Test Bb, Un-packaged Non-operating Dry Heat), IEC 60068-2-14 (Test Na, Un-packaged Non-operating Thermal Shock): -40 to 85°C (-40 to 185°F)										
Relative Humidity	IEC 60068-2-30 (Test Db, Un-packaged Non-operating Damp Heat): 5 to 95% non-condensing										
Vibration	IEC60068-2-6 (Test Fc, Operating): 0.5g @ 10-500Hz										
Shock	IEC60068-2-27: Test Ea (Unpackaged shock, ES#002) Operating 5g Non-operating 20g										
Enclosure Type Rating	None (open-style)										
Barometric Pressure Altitude	-300 to +3000 m										
Certifications: (when product is marked)	<table border="0"> <tr> <td>UL</td> <td>UL Listed Industrial Control Equipment</td> </tr> <tr> <td>CSA</td> <td>CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations</td> </tr> <tr> <td>FM</td> <td>FM Approved Equipment for use in Class I Division 2 Group A,B,C,D Hazardous Locations</td> </tr> <tr> <td>CE <sup>1</sup></td> <td>European Union 89/336/EEC EMC Directive, compliant with: EN 50081-2; Industrial Emissions EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity</td> </tr> <tr> <td>C-Tick <sup>1</sup></td> <td>Australian Radiocommunications Act, compliant with: AS/NZS 2064; Industrial Emissions</td> </tr> </table>	UL	UL Listed Industrial Control Equipment	CSA	CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations	FM	FM Approved Equipment for use in Class I Division 2 Group A,B,C,D Hazardous Locations	CE <sup>1</sup>	European Union 89/336/EEC EMC Directive, compliant with: EN 50081-2; Industrial Emissions EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity	C-Tick <sup>1</sup>	Australian Radiocommunications Act, compliant with: AS/NZS 2064; Industrial Emissions
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C-Tick <sup>1</sup>	Australian Radiocommunications Act, compliant with: AS/NZS 2064; Industrial Emissions										

<sup>1</sup> See the Product Certification link at [www.ab.com](http://www.ab.com) for Declarations of Conformity, Certificates, and other certification details.

**Notes:**

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