Trusted Output Power Distribution Unit

Product Overview

The Trusted® Output Power Distribution Unit is designed to provide 24-120 Vdc for use with Trusted Sourcing Output Modules, e.g. T8451 and T8471, 24 Vdc and 120 Vdc Digital Output Modules respectively. The Unit is designed to be mounted on a DIN rail above the relevant Output Module I/O connectors.

Note: New developments using Trusted Analogue Output Modules, or for Output Modules obtaining their 0 V reference via Trusted Versatile Field Termination Assemblies (VFTAs) should use the Trusted Output Power Distribution Unit (Diode Protected) T8297.

Features:

- Supports up to three Trusted Sourcing Output Modules.
- Dual stud power connection for either single or dual feed.
- 0 V module reference via BLZ 2-part connectors.

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PREFACE

In no event will Rockwell Automation be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment. The examples given in this manual are included solely for illustrative purposes. Because of the many variables and requirements related to any particular installation, Rockwell Automation does not assume responsibility or reliability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, with respect to use of information, circuits, equipment, or software described in this manual.

All trademarks are acknowledged.

DISCLAIMER

It is not intended that the information in this publication covers every possible detail about the construction, operation, or maintenance of a control system installation. You should also refer to your own local (or supplied) system safety manual, installation and operator/maintenance manuals.

REVISION AND UPDATING POLICY

This document is based on information available at the time of its publication. The document contents are subject to change from time to time. The latest versions of the manuals are available at the Rockwell Automation Literature Library under "Product Information" information "Critical Process Control & Safety Systems".

TRUSTED RELEASE

This technical manual applies to **Trusted Release: 3.6.1**.

LATEST PRODUCT INFORMATION

For the latest information about this product review the Product Notifications and Technical Notes issued by technical support. Product Notifications and product support are available at the Rockwell Automation Support Centre at
http://rockwellautomation.custhelp.com

At the Search Knowledgebase tab select the option "By Product" then scroll down and select the Trusted product.

Some of the Answer ID’s in the Knowledge Base require a TechConnect Support Contract. For more information about TechConnect Support Contract Access Level and Features please click on the following link:

https://rockwellautomation.custhelp.com/app/answers/detail/a_id/50871

This will get you to the login page where you must enter your login details.

IMPORTANT A login is required to access the link. If you do not have an account then you can create one using the "Sign Up" link at the top right of the web page.

DOCUMENTATION FEEDBACK

Your comments help us to write better user documentation. If you discover an error, or have a suggestion on how to make this publication better, send your comment to our technical support group at http://rockwellautomation.custhelp.com

SCOPE

This manual specifies the maintenance requirements and describes the procedures to assist troubleshooting and maintenance of a Trusted system.

WHO SHOULD USE THIS MANUAL

This manual is for plant maintenance personnel who are experienced in the operation and maintenance of electronic equipment and are trained to work with safety systems.

SYMBOLS

In this manual we will use these notices to tell you about safety considerations.

	SHOCK HAZARD: Identifies an electrical shock hazard. If a warning label is fitted, it can be on or inside the equipment.
	WARNING: Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which can cause injury or death, property damage or economic loss.
	ATTENTION: Identifies information about practices or circumstances that can cause injury or death.
	CAUTION: Identifies information about practices or circumstances that can cause property damage or economic loss.
	BURN HAZARD: Identifies where a surface can reach dangerous temperatures. If a warning label is fitted, it can be on or inside the equipment.
	This symbol identifies items which must be thought about and put in place when designing and assembling a Trusted controller for use in a Safety Instrumented Function (SIF). It appears extensively in the Trusted Safety Manual.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.
NOTE	Provides key information about the product or service.
TIP	Tips give helpful information about using or setting up the equipment.

WARNINGS AND CAUTIONS

WARNING: EXPLOSION RISK

Do not connect or disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations or equivalent

AVERTISSEMENT - RISQUE D'EXPLOSION

Ne pas connecter ou déconnecter l'équipement alors qu'il est sous tension, sauf si l'environnement est exempt de concentrations inflammables ou équivalente

MAINTENANCE

Maintenance must be carried out only by qualified personnel. Failure to follow these instructions may result in personal injury.

CAUTION: RADIO FREQUENCY INTERFERENCE

Most electronic equipment is influenced by Radio Frequency Interference. Caution should be exercised with regard to the use of portable communications equipment around such equipment. Signs should be posted in the vicinity of the equipment cautioning against the use of portable communications equipment.

CAUTION:

The module PCBs contains static sensitive components. Static handling precautions must be observed. DO NOT touch exposed connector pins or attempt to dismantle a module.

ISSUE RECORD

Issue	Date	Comments
6	Sep 05	Format
7	Sep 15	Rebranded and reformatted
8	Apr 16	Standardisation of Relative Humidity Range and Operating Temperature statements in the Specification Section

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1. Description

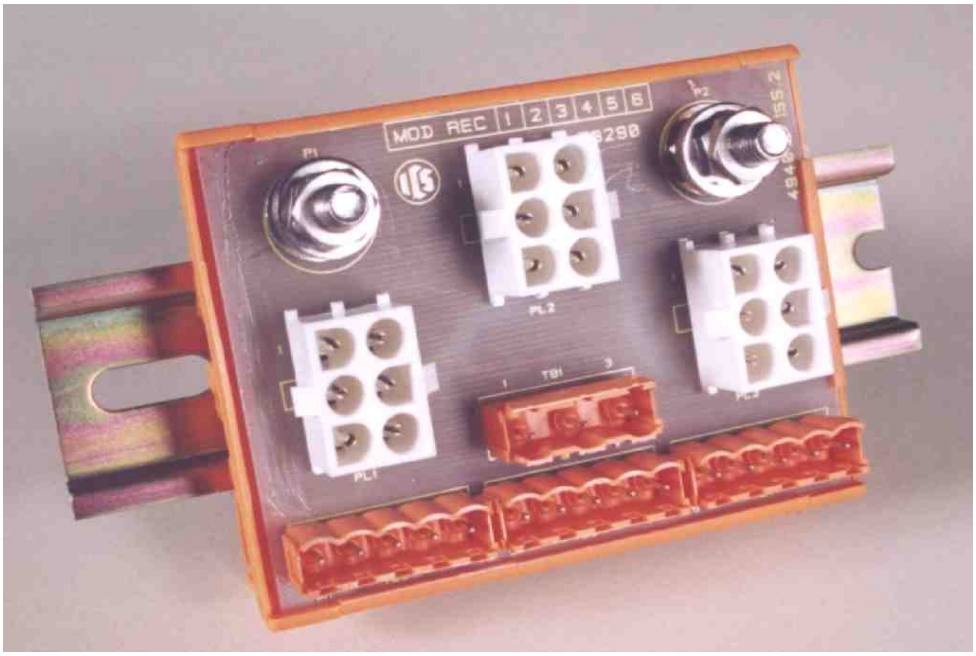

Figure 1 T8290 Photo

The wiring diagram of the Trusted Output Power Distribution Unit is shown in Figure 2.

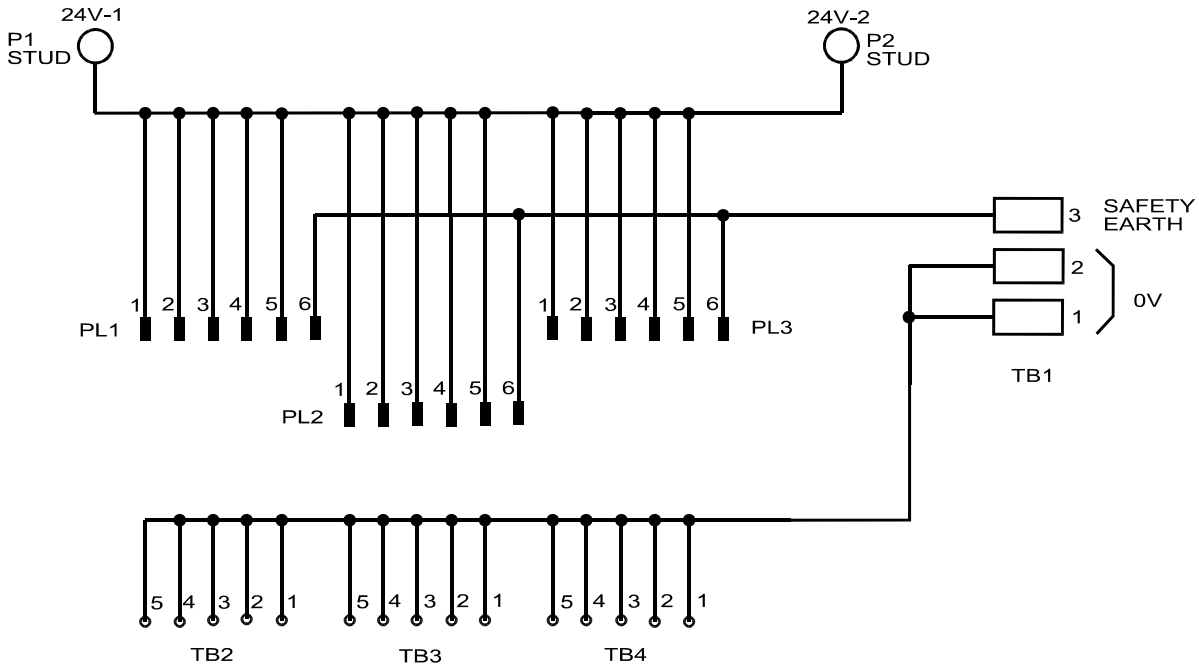

Figure 2 Trusted Output Power Distribution Unit – Wiring Diagram

The Trusted Output Power Distribution Unit is designed to distribute the +ve field loop power and 0 V reference (not 0 V return) for the 24 Vdc - 120 Vdc range of Trusted Sourcing Output Modules. The output 0 V return is via the Trusted Field Termination Assemble (FTA) or field terminal as appropriate.

Up to three Output Modules may be supported providing the total load does not exceed the maximum rated capacity of the Unit.

Each supply stud is capable is of supplying the maximum rated capacity and can be used in single or dual configuration as required. Dual configuration may be used where the supply is fed via blocking diodes.

2. Installation

The Trusted Output Power Distribution Unit may be mounted on TS32 or TS35 DIN rails.

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3. Associated Cable Selection

The output cables detailed in PD-TC100 and PD-TC200 may be used to connect the Unit to the associated Output Modules.

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4. Pin-out Connections

Refer to Figure 2.

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5. Specifications

Voltage Range	22 Vdc - 120 Vdc
Supply Current	60 A max
Supply Connection +ve	2-off M6 x 25 mm studs
0 V Reference Connector (not 0 V return)	BLZ 2-part terminal
Power Output (3-off)	6-way AMP MATE-N-LOK connector
0 V Reference Connector (3-off)	5-way BLZ two-part terminal
Conductor Clamping Range	0.5 mm^2 to 2.5 mm^2
Operating Temperature	0 ˚C to +60 ˚C (+32 ˚F to +140 ˚F)
Non-operating Temperature	-25 ˚C to +70 ˚C (-13 ˚F to +158 ˚F)
Relative Humidity range (operating, storage & transport)	10 % – 95 %, non-condensing
Environmental Specifications	Refer to document 552517
Dimensions	
Height	70 mm (2.75 in)
Width	90 mm (3.54 in)
Depth (including mounting rail)	50 mm (1.97 in)
Weight	106 g (0.23 lb)