

ControlNet Coax Taps

Catalog Numbers 1786-TPR, 1786-TPS, 1786-TPYR, 1786-TPYS

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About This Publication

This publication contains procedures and specifications for the installation of ControlNet coaxial taps.

Important User Information

Solid-state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (Publication [SGI-1.1](#) available from your local Rockwell Automation sales office or online at <http://www.rockwellautomation.com/literature/>) describes some important differences between solid-state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid-state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

	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.
	ATTENTION: Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.
	SHOCK HAZARD: Labels may be on or inside the equipment, for example, drive or motor, to alert people that dangerous voltage may be present.
	BURN HAZARD: Labels may be on or inside the equipment, for example, drive or motor, to alert people that surfaces may reach dangerous temperatures.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.

Environment and Enclosure



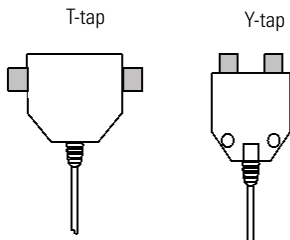
ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 m (1.24 mi) without derating.

Besides this publication, see:

- Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation publication [1770-4.1](#).
 - NEMA Standard 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosures.
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About T-taps and Y-taps

The ControlNet taps are available in two body types to accommodate the connections that you need to make for your installation.











For examples of how these two tap bodies can be connected, refer to [Connect the Taps](#) on [page 12](#).

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Parts (included)

Before you discard the packaging of the tap kit, verify that you have all of the parts.

Item	Description
	Tap, cat. no. 1786-TPR, 1786-TPS, 1786-TPYR, or 1786-TPYS
	Channel A and channel B cable labels
	Threaded screws
	Self-tapping screws
	BNC connector kits
	Universal mounting bracket
	Transition plate
	Dust cap

If you are missing any part, contact your Rockwell Automation Sales Representative.

Additional Parts (not included)

Depending on the type of tap mount and installation you choose, you may require additional parts not included with this tap kit. This list describes additional parts that may be required for your tap installation.

- DIN rail, 35 x 7.5 mm (1.38 x .30 in.), EN 50022-35 x 7.5
- DIN rail, 35 x 15 mm (1.38 x .59 in.), EN 50022-35 x 15

IMPORTANT

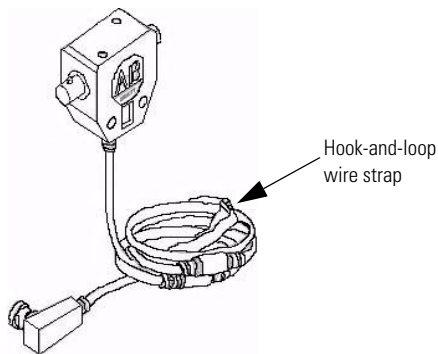
The ControlNet taps do not require the use of DIN rails made of specific materials. However, many of other products available from Rockwell Automation do require the use of a zinc-plated yellow-chromate steel DIN rail to assure proper grounding. The use of other DIN rail materials (such as aluminum or plastic) that can corrode, oxidize, or are poor conductors, can result in improper or intermittent grounding.

For compatibility with other Rockwell Automation products, we recommend that you use the zinc-plated yellow-chromate steel DIN rail.

- Screws of various lengths
- Tie wrap (for mounting the tap)
- 12.7 mm (0.50 in.) diameter max hook-and-loop wire strap for securing coax cable (including tap cable)



IMPORTANT For securing coax cables (including the tap cable), use hook-and-loop wire straps (not included; local purchase). We do not recommend wire ties because excessively tightened ties may degrade cable transmission quality.



Required Tools

You will need a #1 Phillips-head screwdriver for most types of installation.

Install the Coax Tap

Because the coax taps are designed to be versatile, several types of installation are available. Choose to install the coax tap by using one of these mounting methods:

- [Mount to DIN Rail](#), see [page 7](#)
- [Mount to Surface or Fixture](#), see [page 10](#)
- [Mount Through Holes in Tap](#), see [page 11](#)

Mount to DIN Rail

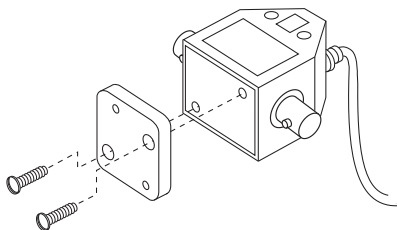
Use the following procedure to mount a T-tap or Y-tap to a DIN rail.

1. Determine if your installation requires the use of the transition plate.

The transition plate should be used only when a T-tap is being installed and the T-tap needs to be mounted horizontally.

If you are **not** using the transition plate, skip to [step 4](#).

2. Begin attaching the transition plate by aligning the holes of the transition plate and tap body.

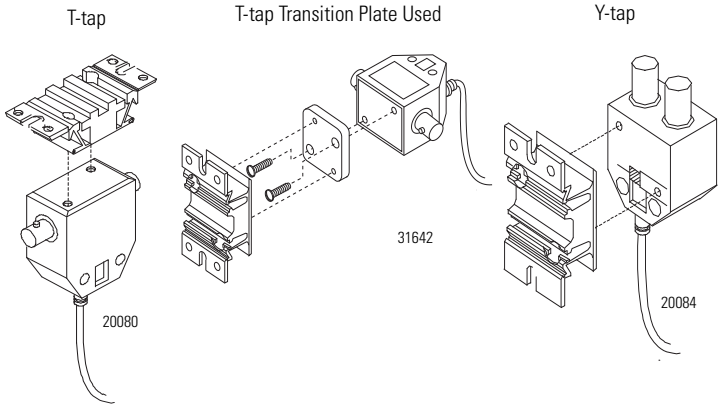


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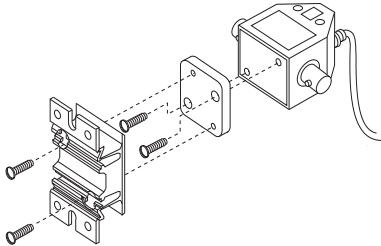
3. Insert the threaded screws into holes of the transition plate and tighten.

IMPORTANT Do not over-tighten screws as tap body damage may result. Applied screw torque should not exceed 0.2...0.4 N•m (0.14...0.29 lb•ft).

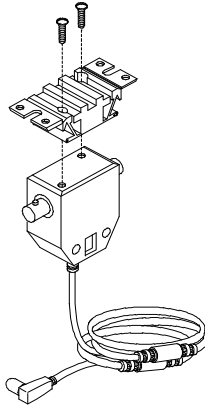
4. Position the universal mounting bracket against the back of the tap or the transition plate so the screw holes are aligned.



5. If you mount the tap by using the transition plate, insert the self-taping screws into the holes of the universal mounting bracket and tighten.

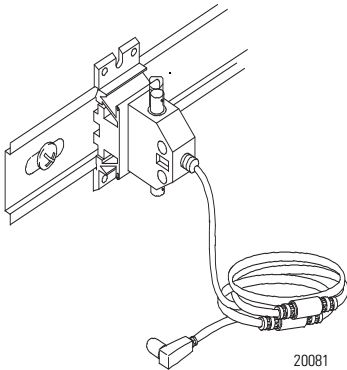


6. If you mount the tap without using the transition plate, insert the threaded screws into the holes of the universal mounting bracket and tighten.

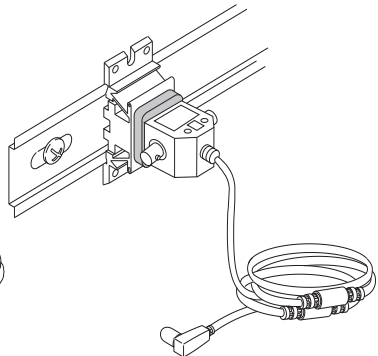


7. Attach the tap to the DIN rail by snapping the universal mounting bracket onto the DIN rail.

Without Transition Plate



With Transition Plate



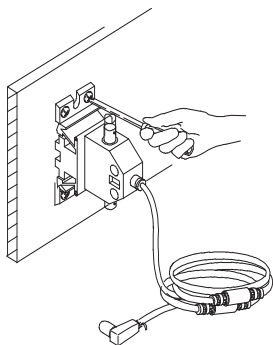
Mount to Surface or Fixture

To mount the tap to a surface or fixture, complete steps [1...5](#) described in the section [Mount to DIN Rail](#) (on [page 7](#)), and then complete these steps.

1. If needed, pre-drill holes into the surface that align with holes in the outer corners of the universal mounting bracket.

The holes of the universal mounting bracket have a diameter of 4.3 mm (0.17 in.).

2. Place the universal mounting bracket against the surface and insert four screws (not included) into the holes of the universal mounting bracket.



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