Thank you for purchasing the PR300. This manual describes the installation and wiring procedures of the PR300. The electronic manual is also provided in this manual. Read along with this manual. To ensure correct use, be sure to read the PR300 Power and Energy Meter User’s Manual (IM 77C01E1-01E) thoroughly before beginning operation.

Printed manuals
Model PR300 Power and Energy Meter Startup Manual <Installation> : IM 77C01E1-02E (This manual)
Model PR300 Power and Energy Meter Startup Manual <Initial Setup Operations> : IM 77C01E1-03E

Electronic manuals (PDF files)
Model PR300 Power and Energy Meter User’s Manual : IM 77C01E1-01E
Model PR300 Power and Energy Meter Communication Interface User’s Manual : IM 77C01E1-10E

You can download the latest manuals from the following website.
https://www.yokogawa.com/mi/pr300ml/

Please keep this manual for future reference.

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1. Installation

1.1 Installation with the ANSI 4-inch Round Form

The PR300 can be installed so that it handles ANSI 4-inch round form or JIS 110-square instrument panels cutouts by attaching the “JIS/ANSI-mouting kit” accessory.

1.1.1 External Dimensions

1.1.2 Panel Cutout Dimensions

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<th>ANSI</th>
<th>42.9-0.4</th>
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<td>50.8</td>
<td>101.5</td>
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<td>63.5</td>
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Applicable wire size
The PR300 can be used with wires of nominal cross-sectional area of 0.5 mm² or thicker and power supply; cables with a nominal cross-sectional area of 1.25 mm² or thicker are recommended for voltage/current input, and terminal cover for preventing electric shock (refer to Chapter 3, “Attaching the Dust Cover and Terminal Cover”).

NOTE
When attaching the terminal cover
- Since the terminal cover of the PR300 has the structure of preventing electric shock, the terminal cover cannot be attached after completing all wiring. Refer to Chapter 3, “Attaching the Dust Cover and Terminal Cover” before wiring.

Carry out the wiring referring to the diagrams in Sections 2.1 to 2.6. The wiring for voltage input, current input, and power supply is M4 screw terminal connection. For other wiring it is M3 screw terminal connection. The connector for connecting to the Ethernet is RJ45. Use stranded wires for the wiring. Wiring cables with a nominal cross-sectional area of 1.25 mm² or thicker are recommended for voltage/current input and power supply; cables with a nominal cross-sectional area of 0.5 mm² or thicker are recommended for other signals. Suitable good-contact ring type crimping terminals are recommended to use.

NOTE
Do not install the PR300 in the following types of environments, as they may cause the PR300 to malfunction or fail.
- Avoid sites exposed to significant shock or vibration; where corrosive gases are present; where large amounts of dust are present; exposed to water; exposed to direct sunlight; outside; at altitudes above 2000 m
- The PR300 mounting position is for vertical panels only.

WARNING
- Install the PR300 in the secondary side of the existing breaker.
- When installing the PR300, provide spacing of 50 mm or more between each face of the PR300 body and the instrument next to the PR300 or between each face and the wall surface.

Safety Precautions
1.2.1 External Dimensions

1.1.3 Mounting Method

1. Set the direction of the panel-mounting bracket.

2. Insert two panel-mounting bolts into the front of the PR300 as shown in the diagram.

3. Fix the panel-mounting bracket securely to the back of the PR300 with two panel-mounting bolts (standard accessory: 2 brackets)

4. Attach the bezel from the front of the PR300. Bracket-fixing screws as shown in the diagram.

2. Wiring

2.1 Single-phase two-wire system

1. Insert the PR300 from its rear through the mounting cutout in the panel as shown in the diagram.

2. Affix the mounting brackets to the left and right sides of the PR300. Secure the brackets to the PR300 by tightening the screws in the end of the mounting brackets with a screwdriver as shown in the diagram.

2.2 Single-phase three-wire system

1. Refer to the diagram below.

2. Refer to the diagram below.

2.3 Three-phase three-wire system

3. Attaching the Dust Cover and Terminal Cover

NOTE
As there is a danger of electric shock, do not attach the dust cover and terminal cover while the wires are live.

3.1 Attaching the Dust Cover

1. Insert the two protruding portions on the underside of the dust cover into the grooves on the upper side of the PR300 and secure it as shown in the diagram below.

2. Secure the dust cover with the screws provided as shown in the diagram below.

3.2 Attaching the Terminal Cover

1. Complete the wiring to the terminals 2, 4, 6, 8, 23, 24, and 25, then secure the terminal cover in the open state shown in the diagram below with the two screws provided.

2. Complete the wiring to other terminals with the terminal cover open shown in the diagram below.

3. Close the terminal cover and secure it with the screws provided as shown in the diagram below.