

AIN ALPHA[®] Meter

Installation Instructions

General

This leaflet contains general installation instructions for 3 wire delta and 4 wire wye applications of AIN ALPHA polyphase watt-hour meters. All meters are calibrated and tested before shipment. For proper installation, accuracy, and maximum life of the meters, use the following installation procedures.

||| ▲ DANGER |||

Dangerous voltages are present

Use authorized utility procedures to install and service metering equipment. Dangerous voltages are present. Equipment damage, personal injury, or death can result if safety precautions are not followed.

Use circuit closing devices on any current transformer secondaries. Equipment damage, personal injury, or death can result if circuit closing devices are not used.

Installation

- 1 Determine the meter installation location. Make sure maximum current and service connections are compatible before installing meter.
- 2 Mount the bottom connected meter. The housing and fixing holes (except top) conform to the DIN 43859 standard. The top hanger of the meter can be positioned above the housing, and thereby be visible and more easily installed, or it can be hidden under the housing. You can easily change the position of the hanger by squeezing it and then moving it to the desired position. (See Figure 9 for mounting dimensions.)

||| ▲ DANGER |||

Dangerous voltages are present

Use authorized utility procedures to install and service metering equipment. Dangerous voltages are present. Equipment damage, personal injury, or death can result from wiring an ungrounded meter.

- 3 Wire meter with 5.0 mm (maximum) diameter wire. The voltage and current connections are equipped with combi-screws enabling both "slot" and Philips screwdrivers to be used. If wire diameter is larger than 5.0 mm, approved adapters must be used. (See Figure 1 through Figure 7 for installation wiring.)
- 4 With the meter installed, verify that the red LED is blinking if any load is applied. If voltage is applied with no load, the P=0 annunciator should be illuminated on the LCD.
- 5 The pulse output can be connected as a relay, that is, the polarity does not matter. (See Figure 8 for relay location.) Note that the maximum ratings for this pulse output relay are limited to 120 VAC_{RMS} or 200 VDC and 100mA.

Battery Installation/Replacement

Multi-tariff meters are typically shipped with battery installed and connected. If the battery was requested to be shipped disconnected, separately, or as a replacement, see *AIN ALPHA Meter Technical Manual* (TM42-2380) for procedures.

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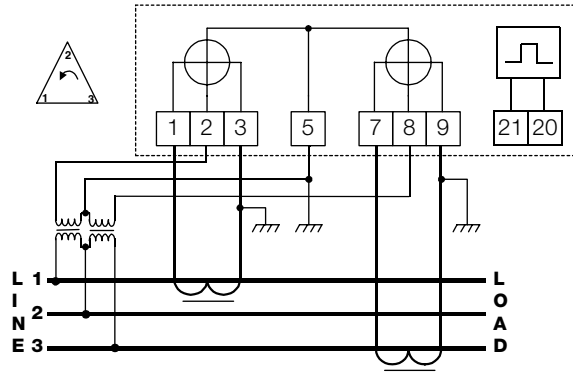


Figure 1. Wiring for 3 phase, 3 wire, 2 element with instrument transformers, sequential

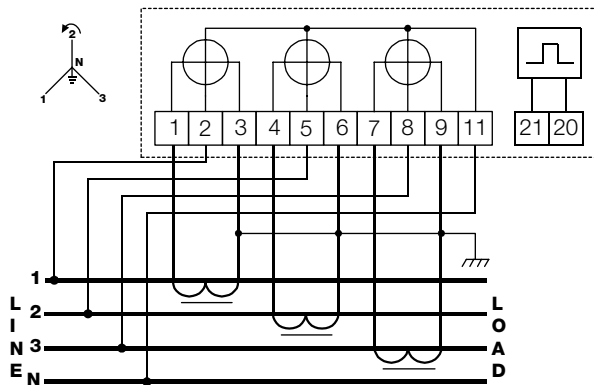


Figure 2. Wiring for 3 phase, 4 wire, 3 element with current transformers, sequential

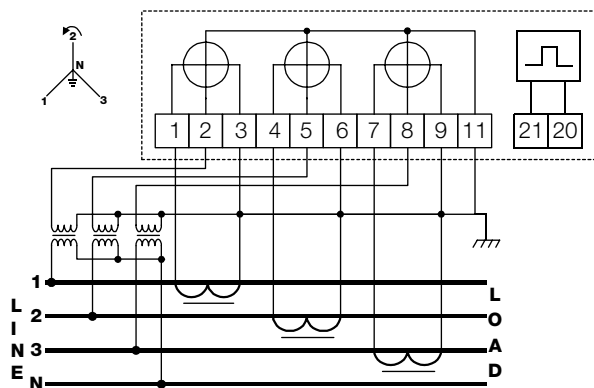


Figure 3. Wiring for 3 phase, 4 wire, 3 element with instrument transformers, sequential

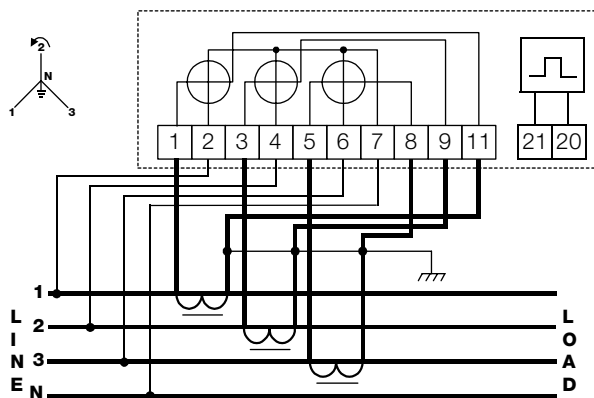


Figure 4. Wiring for 3 phase, 4 wire, 3 element with current transformers, symmetrical

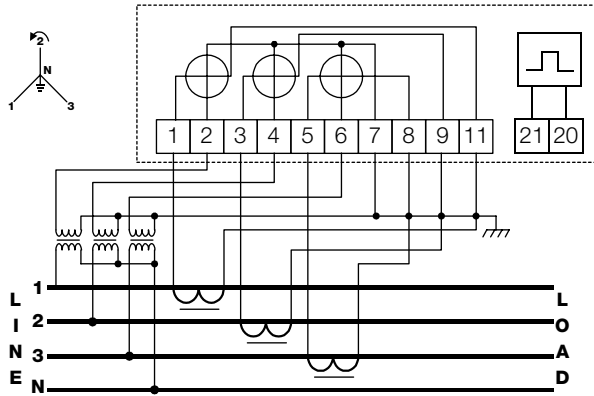


Figure 5. Wiring for 3 phase, 4 wire, 3 element with instrument transformers, symmetrical

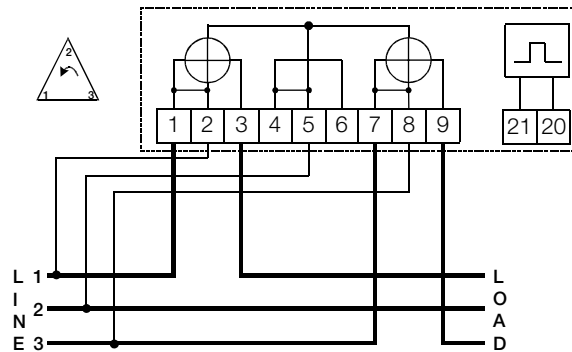


Figure 6. Wiring for 3 phase, 3 wire, 2 element, direct connect sequential

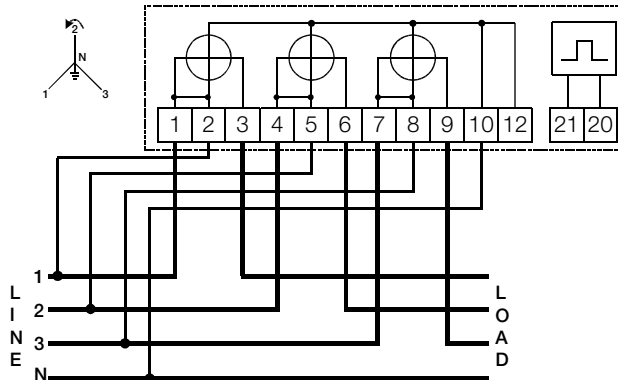


Figure 7. Wiring for 3 phase, 4 wire, 3 element, direct connect sequential

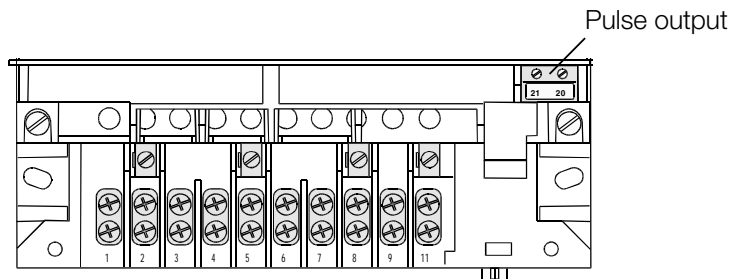


Figure 8. Pulse output relay location

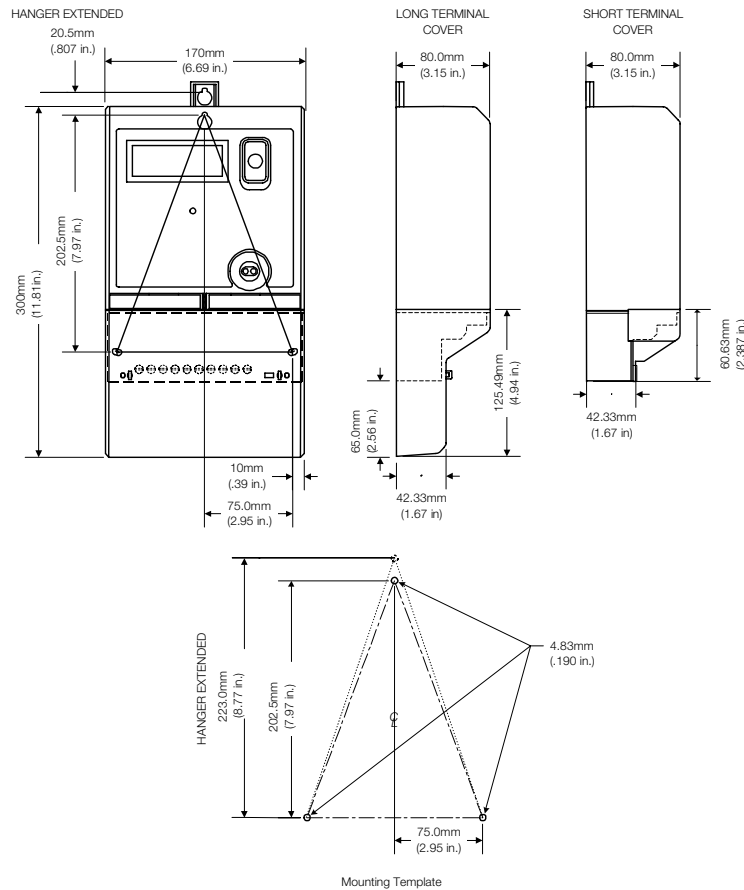


Figure 9. Mounting Dimensions
 Dimensions provided for reference only

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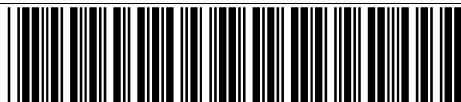
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