

## Flush Mount AIN ALPHA® Meters

### General

This leaflet contains installation instructions for mounting an AIN ALPHA meter in a semi-flush configuration. A mounting kit, style number 1C11497G01, consists of a cover panel and all hardware necessary to semi-flush mount any Elster Electricity supplied AIN ALPHA meter.

**Note.** The meter must have a short terminal cover, as shown in Figure 3 (Elster Electricity style number 3D93427H01).

This leaflet does not discuss the electronic assembly of the AIN ALPHA meter. Please refer to the AIN ALPHA Meter Technical Manual (TM42-2380) for information about the functionality of the meter.

The meter is secured to a panel using a rectangular, metal mounting plate, mounting posts and screws. This mounting arrangement secures the meter to the panel with the back of the meter and the meter terminals behind the panel wall.

Voltage and current inputs are brought to the standard input terminals of the meter. The meter may also be provided with output relays and optional communications interface. These connections are also made using the standard AIN ALPHA terminals, near the bottom of the meter housing.

### Hardware Kit

Verify the correct hardware / panel / etc. Description and quantity per table below:

Description	Quantity	Elster Electricity style number
M6 × 12mm pan head screw	3	70005CC3D7
M6 lockwasher	2	70550AA10R
M6 hex nut	2	70250AC0AQ
40mm long hex spacer	1	3A34493H01
M5 × 12mm pan head screw	1	70005CC3DK
Seal screw	4	3A34342H01
M4 lockwasher	2	70550AA10L
9.5mm long hex nut	2	3A34493H02
Lead wire seal	2	01R0140H01
Mounting plate	1	3D93433H01

#### Elster Electricity, LLC

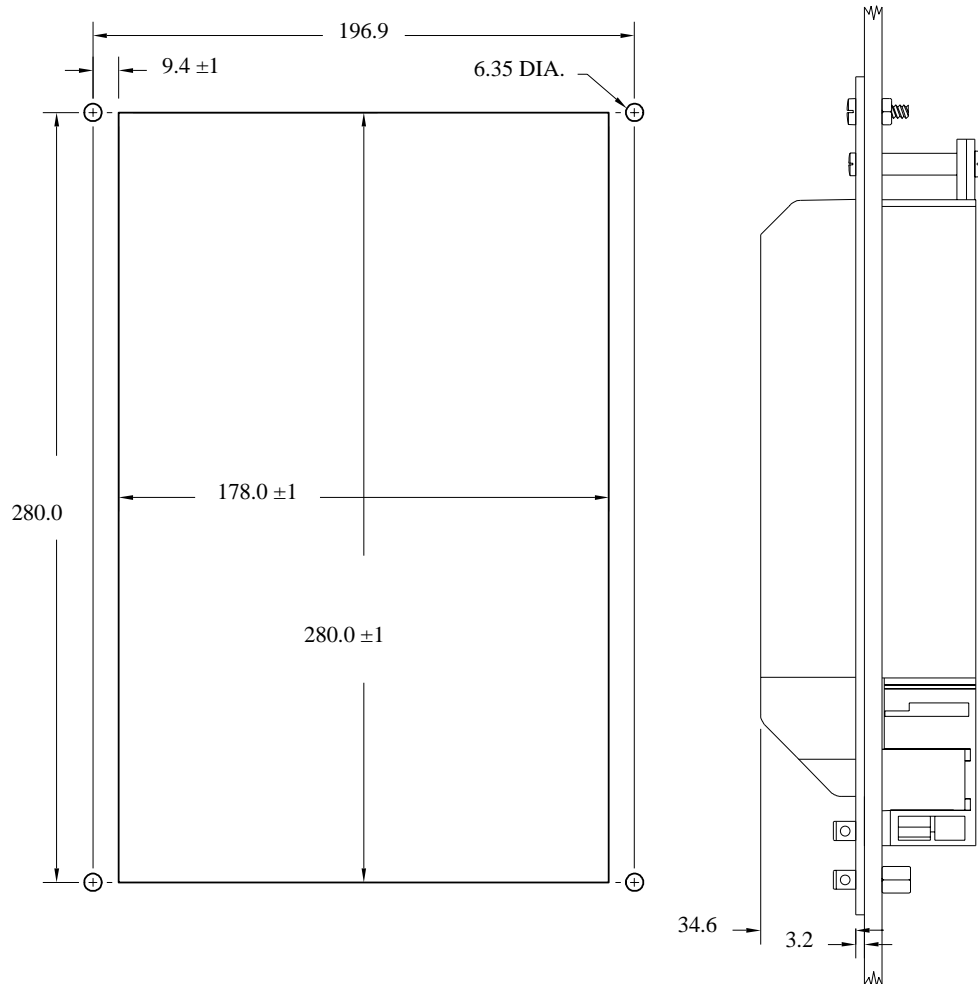
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## Installation

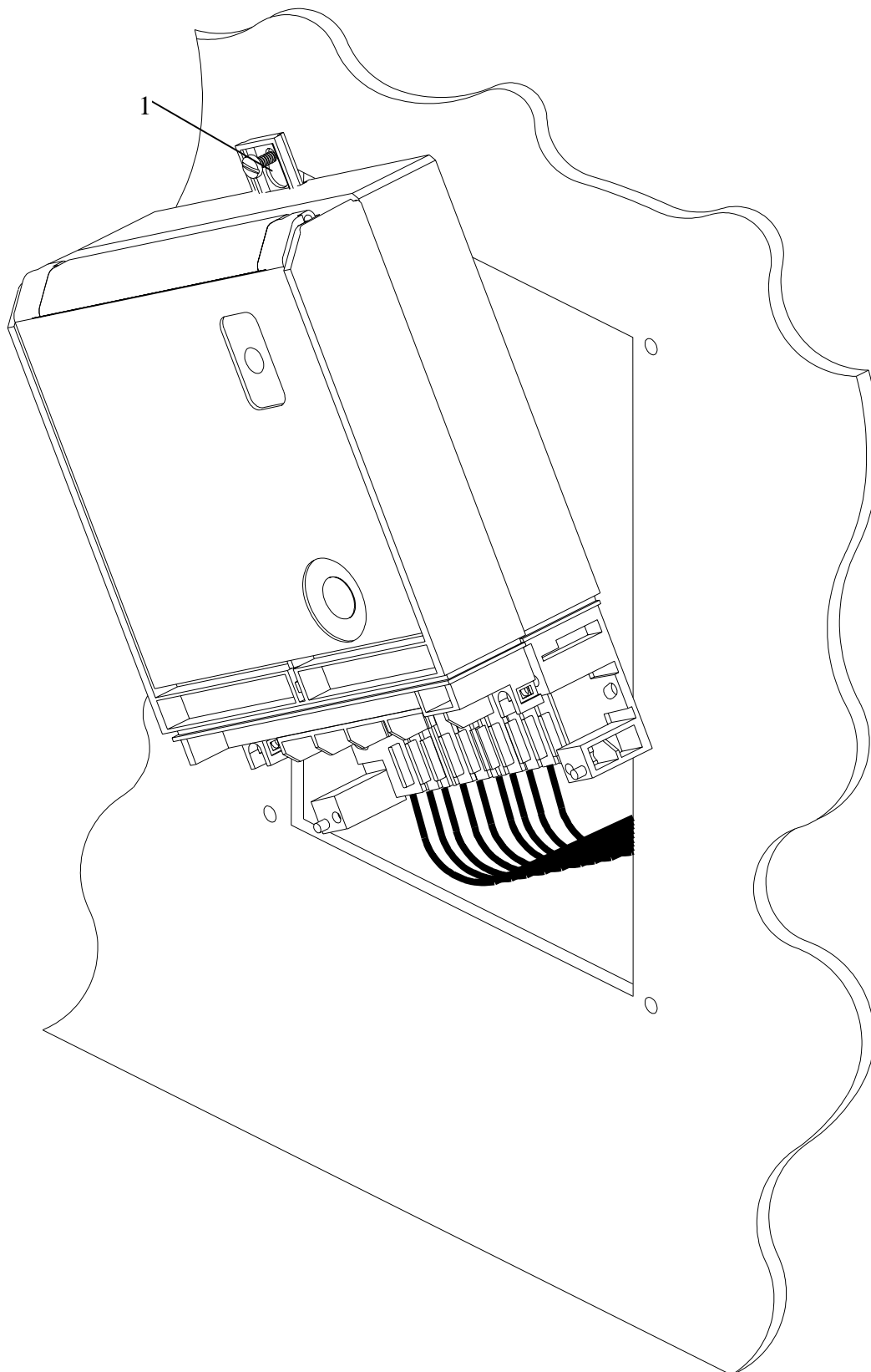
It is the user's responsibility to apply the correct interface connectors, wired properly, to use the communications features supplied.

- 1 Make the panel opening per the dimensions and tolerances shown in Figure 1 (use a template if necessary). The supplied hardware will accommodate panels up to 5mm thick.



**Figure 1. Panel Cutout and Mounting (dimensions in mm)**

- 2 Temporarily secure the AIN ALPHA meter in the panel opening while you complete the wiring. One suggested method for temporary mounting of the AIN ALPHA meter is to use one of the M6 x 12mm screws and matching nut. Place the screw through hole (1) as shown in Figure 2 and secure with the matching nut. Use this screw as a temporary mounting point for the hanger bracket on the AIN ALPHA meter.



**Figure 2. Wiring the AIN ALPHA Meter**

- 3 Remove the terminal cover.

**⚠ WARNING**

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

Use circuit closing devices on current transformer secondaries. Dangerous currents and voltages are present. Equipment damage, personal injury and death can result if circuit closing devices are not used.

**⚠ CAUTION**

The Elster Electricity AIN ALPHA meter does not have any built in circuit closing features. If local codes or particular utility practices call for test switches / circuit closing devices / etc., these should be installed between the service wires and the meter.

- 4 Bring the leads for voltage and current, and the connecting cables for relay and communications options to the meter terminals and secure them using the appropriate connections. Follow the wiring diagrams found on the back of the terminal cover or in the AIN ALPHA Meter Technical Manual (TM42-2380). Replace the terminal cover when wiring is complete, but do not secure the cover with the mounting screws at this time.
- 5 Attach the 40 mm hex spacer post to the panel side of the mounting plate using an M6 screw. Note that the two ends of the hex spacer post are tapped differently.
- 6 Remove the meter from its temporary mounting location and place the meter face through the panel opening. Place the mounting plate around the AIN ALPHA meter and secure it to the meter using the four screws (with seal holes). Two screws will secure the terminal cover to the meter and the other two will secure the mounting plate to the panel. All four screws have sealing holes so that the meter can be secured to the panel and sealed to prevent tampering. The two seal screws that pass through both panels require the long hex nut and lockwasher, as shown in Figure 3. The hanger bracket of the meter should fit to the 40 mm hex spacer post. Complete this connection by securing the M5 screw through the hanger bracket and into the 40 mm hex post.
- 7 Remove the screw used as the temporary mounting support. Complete the attachment of the mounting plate to the panel using the remaining two M6 x 12 mm hex head screws, lockwashers and nuts provided.
- 8 Apply power to the installation and verify proper operation.

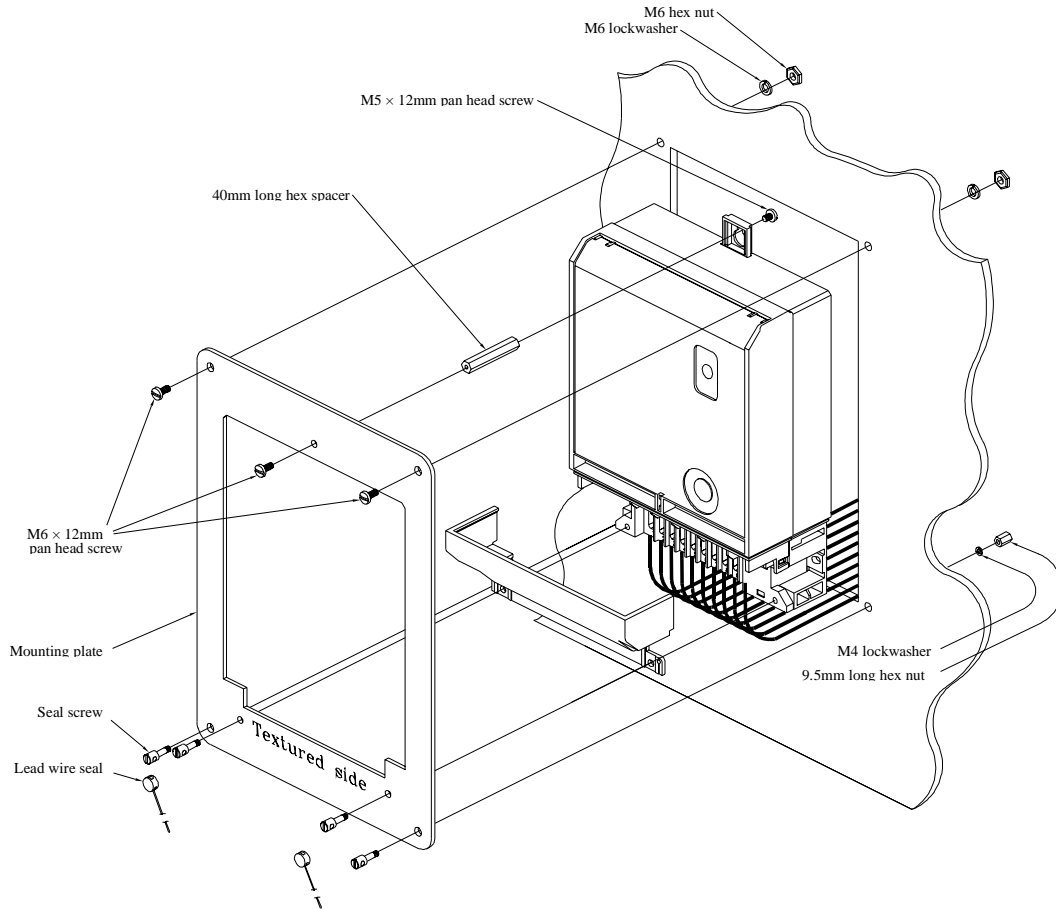


Figure 3. Installation

## Connection, Operation, and Maintenance

For connection wiring diagrams and information about operating and maintaining the AIN ALPHA meter, see the AIN ALPHA Meter Technical Manual (TM42-2380).

## **Notes**

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