

## 5 Installation Process

For installations that include a gas meter and an IHD the installer should note the following points before installing the devices:

- For installing the gas meter check if the new gas meter fits in to the existing meter space.
- Identify and mark the position for mounting the IHD.

### 5.1 Installing the Liberty 100 Electricity Meter

Before installing the electricity meter the installer should note its overall dimension to make sure it can be fitted in the required position.

#### 5.1.1 Overall Dimension

The outer dimensions of the Liberty 100 are as detailed below. All dimensions are in mm.

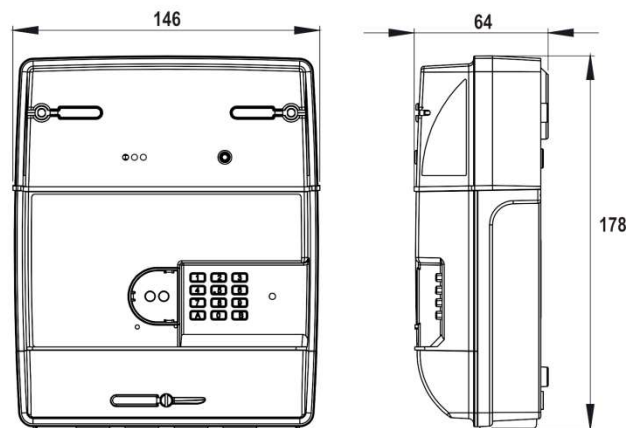


Figure 10: Liberty 100 front and side view dimensions

The terminal bore diameter, the distance between each terminal and the distance between outer terminals are as detailed below.

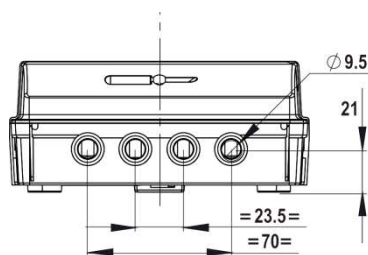


Figure 11: Liberty 100 terminal bores at the bottom

Terminal numbers are engraved from 1 through 4 on the front of the meter base near the terminal block area for convenience during wiring.

### 5.1.2 Mounting Liberty 100 on the wall

Liberty 100 meters are designed for vertical mounting, and can be fitted to meter panels, boards, enclosures or walls. The mounting holes are compliant to BS 7856. Suitable self tapping screws must be used to ensure a good fixture.

The meter uses a three point fixing arrangement. The top screw is located on the meter's centre-line and fits into a 'key-hole' locator on the rear of the meter. This screw supports the meter in position on the surface to which it is to be attached. Two additional screws are fitted through the terminal block of the meter and are used to secure it to the mounting surface.

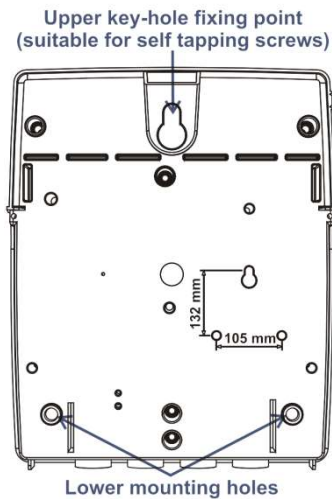


Figure 12: Liberty 100 rear view

1. Hold the meter upright on the wall where it is to be mounted leaving sufficient space on all sides and mark the position on the mounting surface.
2. Drill a hole on the mounting surface and fit the top fixing screw.
3. Fit the meter onto the top fixing screw taking care to align it correctly within the 'key-hole' locator.
4. With the terminal cover removed, mark out the positions of the lower fixing screws.
5. Remove the meter, drill holes for the lower fixing screws.
6. Fit the meter over the top fixing screw again.
7. Fit the lower fixing screws.
8. Ensure that the meter is vertical and firmly fitted to the mounting surface.

### 5.1.3 Connection Diagram

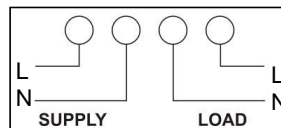


Figure 13: Connection diagram

The connection diagram is marked on the inside of the terminal cover.

### 5.1.4 Fitting Conductors

Local best practice must be observed when selecting conductor size and type.

Liberty 100 can accept cabling up to 35 mm<sup>2</sup> conductor area.

The cables must be cut and trimmed carefully. The insulation must be cut back and removed 'squarely' to ensure that the inner insulation is not exposed on the portion of the cable outside the conductor bore.

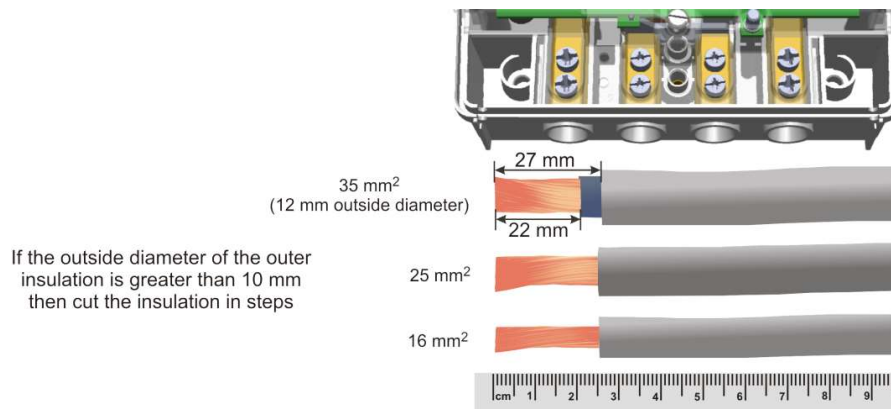


Figure 14: Correct insulation trimming

The procedure for fitting the conductors is as follows:

1. Remove the terminal cover.
2. Cut and trim the cables.
3. Loosen the conductor screws fully.
4. Insert the cables fully into the conductor bores, ensuring that no inner insulation is exposed externally.
5. Tighten the conductor screws.

**Note: The maximum permissible torque setting for the screws is 3.5 Nm.**

6. Fit the terminal cover.
7. Seal the terminal cover in accordance with local practice.

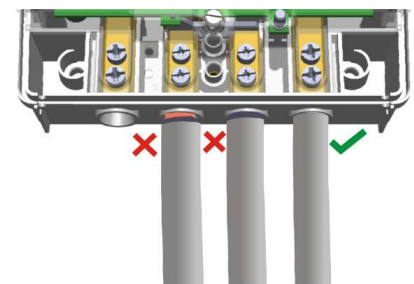


Figure 15: Correct way for inserting conductor cables