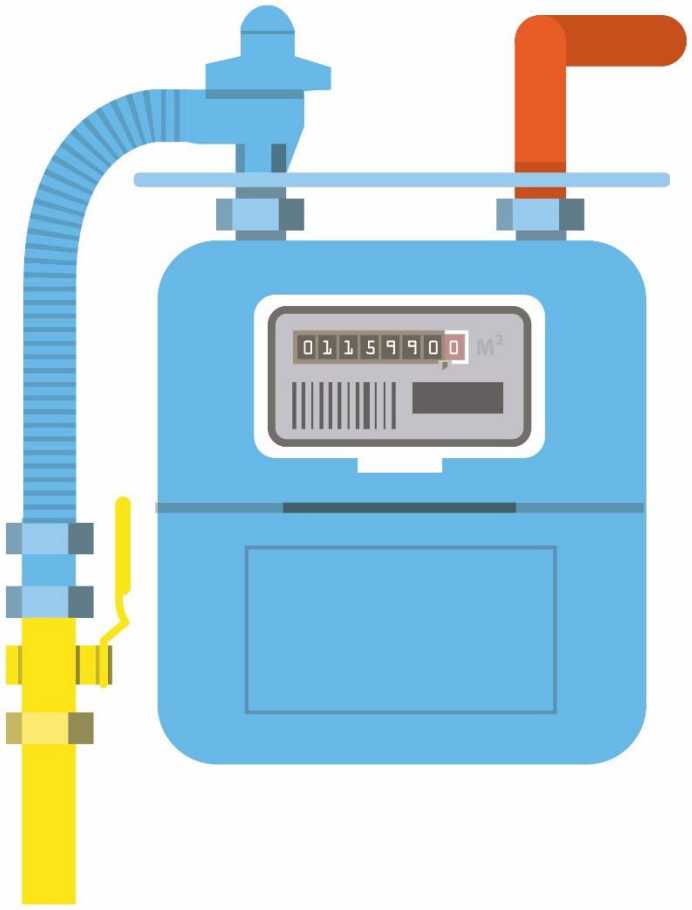
Cadent
Your Gas Network

Low pressure (LP) services and meter boxes

Location guidance



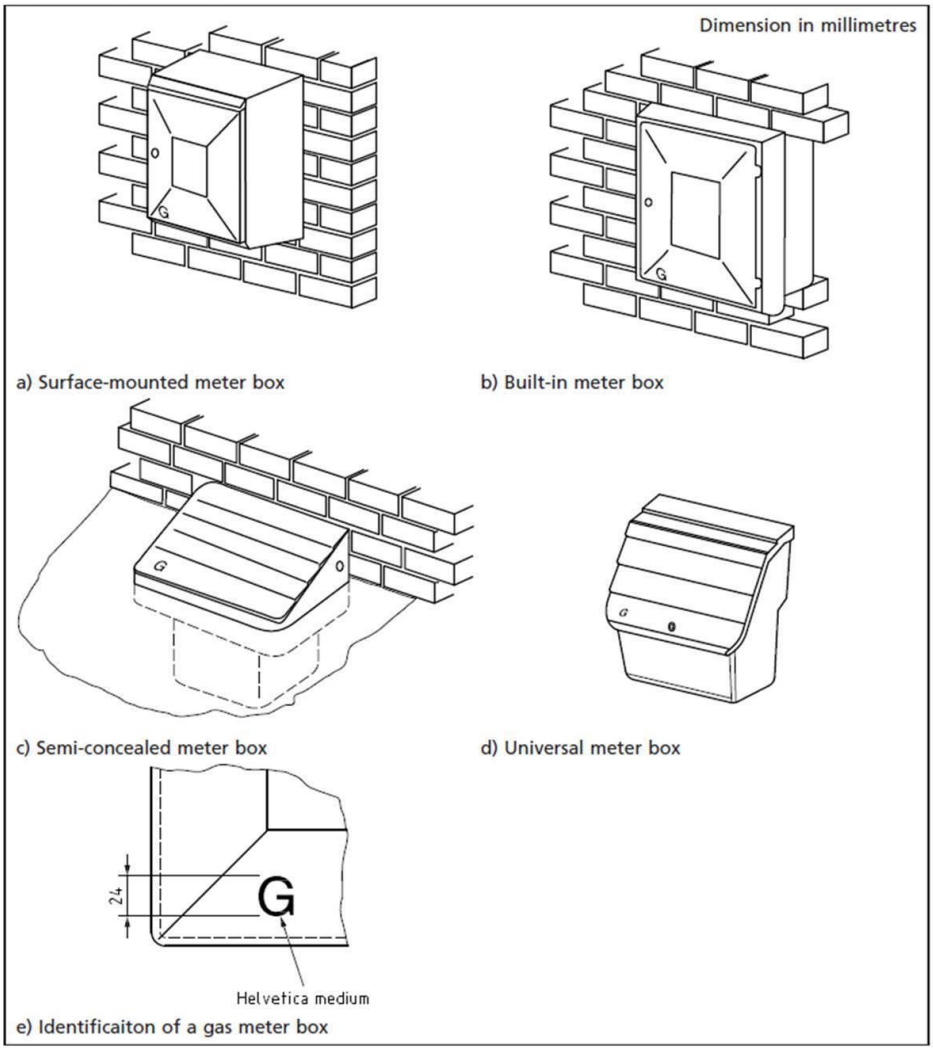
Specification for installation, exchange, relocation, maintenance and removal of gas meters with a maximum capacity not exceeding 6 m3/h: Low pressure (2nd family gases) provides guidance on meter housings/kiosks.

When installing a meter which is to be located outside the building the installation will need to be located in:

- semi-concealed meter boxes;
- surface-mounted meter boxes;
- built-in meter boxes;
- universal meter boxes; or
- purpose-built housings designed for low pressure meter installations.

BS 6400-1:2016 BRITISH STANDARD

Figure 4 Typical examples of meter boxes



Meter boxes illustrated in Figure 4a), Figure 4b) and Figure 4d) are intended to accommodate diaphragm and ultrasonic meter installations with a capacity of 6 m3/h. Semi-concealed meter boxes shown in Figure 4c) are intended to accommodate specifically designed diaphragm and ultrasonic credit meters or smart meters with a capacity of 6 m3/h, and can be adapted to fit a prepayment meter.

New meter boxes shall conform to BS 8499.

Meter box location

In order to comply with the requirements of the Gas Act, the “meter shall be installed as near as practicable to the Gas Transporter’s main”. This means that the service should be laid in a straight line and terminate as close to the main as possible. Consequently, for external meter positions, the meter-box should be located on the front face of the building (taken to be the face of the building nearest the main), or not more than 2m up the gable.

When considering the location of any meter box, the following factors shall be considered:

a. Damaged meter boxes shall not be installed.

b. Meter boxes shall not be installed directly above drains, air bricks, manholes, under appliance flues or where access / egress may be restricted in the event of an emergency e.g. narrow foot walks.

c. Surface mounted or semi concealed meter boxes shall not be installed on public footpaths or highways where damage from pedestrians or vehicles can occur.

d. Where the meter box is to be fitted onto an external wall it shall not bridge the DPC.

e. Where a gas service is to terminate in a surface mounted meter box on a corbelled wall, the base of the box should be located a minimum of 2 courses above the corbelled wall to accommodate the pre-formed fitting.

f. Surface mounted, Built-in, Semi-Concealed and Universal meter boxes shall not be installed in an unventilated or enclosed area, these may include building extensions such as front porches, garages etc.

Purpose-built meter housing

If you have decided to have purpose-built meter housing (which will need to be installed by your builder/developer) the following design criteria shall be met:

- They are impermeable to gas and do not allow escaping gas to enter the wall cavity or property;
- They give protection against the weather and acts of vandalism;
- They are resistant to the surface spread of flame in accordance with BS 476-7:1997, Class 2;
- Consumer access is gained only by a special key;
- The consumer has ready access to the ECV;
- If intended to be installed above ground, they incorporate ventilation that is a minimum of 2% of the plan area (1% at high level and 1% at low level) provided by purpose-designed vents of the non-closable type to achieve at least a Zone 2 hazardous area within the meter housings;
- If intended to be installed partly below ground (e.g. a semi-concealed meter housing), they incorporate non-closable ventilation that is a minimum of 6% of the plan area, evenly distributed at high level to achieve at least a Zone 2 hazardous area within the meter housings.

Important information

The plan area is the area of the largest internal cross section in plan view, e.g. on those semi-concealed meter boxes that have a well in the base. It is not the floor area of the well but the area at the widest point.

Attention is drawn to the Gas Safety (Installation and Use) Regulations [2].

The size of the meter housing shall be determined by the meter to be fitted and by the arrangement of the pipework and associated gas fittings.

A space measuring (550 × 550 × 300) mm can accommodate a typical 6 m3/h meter, but if it is considered necessary to reduce these dimensions then the relevant gas transporter should be consulted, as any reduction might restrict the choice of meter that could be installed.

Only meters that are specified by the manufacturer as suitable for use in semi-concealed meter boxes shall be installed in such boxes.

A meter shall not be installed in a built-in meter box whose main body is damaged as there is a risk that gas could enter the cavity or fabric of the building.

Where the main body of a built-in meter box is damaged and has a small hole [10 mm2, i.e. (3 × 3) mm approximately], the meter should not be installed unless the box is permanently repaired to achieve a gas tight seal, e.g. using glass fibre reinforced plastics (GRP).

Where the protective bonding conductor connection is made inside a built-in meter box, the cable shall leave the box either through a purpose-provided rear entry sleeve (spigot) or via the bottom exit and not by drilling or piercing the box.

The consumer shall be provided with a labelled key for the housing.