

BS 8499:2017



BSI Standards Publication

**Specification for domestic gas meter
boxes and meter bracket**

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2017

Published by BSI Standards Limited 2017

ISBN 978 0 580 51092 2

ICS 91.140.40

The following BSI references relate to the work on this document:

Committee reference GSE/25

Draft for comment 17/30365142 DC

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

Contents

	Page
Foreword	iii
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	3
4 Dimensions and features	5
<i>Figure 1 — Typical meter box adaptor with ECV and cap</i>	7
<i>Figure 2 — Built-in box dimensions and features</i>	8
<i>Figure 3 — Surface mounted box dimensions and features</i>	10
<i>Figure 4 — Recommended dimensions and features for new semi-concealed box designs</i>	12
<i>Figure 5 — Universal box dimensions and features</i>	14
5 Meter bracket (supplied separately)	15
6 Spigot	15
<i>Figure 6 — Spigot dimensions</i>	15
7 Materials	15
8 Finish	16
9 Marking	16
10 Notices and labels	17
<i>Figure 7 — Typical emergency notice</i>	18
<i>Figure 8 — Typical combined emergency notice</i>	19
<i>Figure 9 — Spigot knockout warning label (built-in boxes)</i>	19
<i>Figure 10 — Medium pressure service warning label</i>	20
<i>Figure 11 — Typical manufacturer's label</i>	21
11 Type testing and performance requirements	22
<i>Table 1 — Flexural properties of box samples</i>	22
<i>Table 2 — Charpy impact strength of box samples</i>	22
<i>Table 3 — Hinge strength</i>	22
Annex A (normative) Meter box key	24
<i>Figure A.1 — Meter box key</i>	24
Annex B (normative) Meter bracket	25
<i>Figure B.1 — Meter bracket dimensions</i>	27
<i>Figure B.2 — Meter bracket shear bolt dimensions</i>	29
<i>Figure B.3 — Meter bracket security washer dimensions</i>	30
<i>Figure B.4 — Location points for measurement of thickness of zinc coatings on meter brackets</i>	31
Annex C (normative) Polyester moulding compound production testing	32
<i>Table C.1 — Flexural properties of test plaques</i>	32
<i>Table C.2 — Charpy impact strength of test plaques</i>	33
Annex D (normative) Selection of meter box samples and test plaques for testing	33
<i>Figure D.1 — Basic cutting plan</i>	34
Annex E (informative) General instructions labels	35
<i>Figure E.1 — Built-in box general instructions (typical)</i>	36
<i>Figure E.2 — Surface mounted box general instructions (typical)</i>	37
<i>Figure E.3 — Semi-concealed box general instructions (typical)</i>	38
<i>Figure E.4 — Universal box general instructions (typical)</i>	39
Annex F (normative) Methods of test for hinge strength	40
<i>Figure F.1 — Built-in and surface mounted hinge strength test</i>	40

	<i>Figure F.2 — Typical apparatus for semi-concealed and universal box hinge strength test</i>	41
Annex G	(normative) Method of test for door flatness (built-in and surface mounted boxes)	42
Annex H	(normative) Cutting plans for meter box test samples	42
	<i>Figure H.1 — Locations of built-in box body cutting plan</i>	43
	<i>Figure H.2 — Location of built-in box door cutting plan</i>	46
	<i>Figure H.3 — Location of surface mounted box cover cutting plan</i>	47
	<i>Figure H.4 — Location of surface mounted box back panel cutting plan</i>	48
	<i>Figure H.5 — Location of surface mounted box door cutting plan</i>	49
	<i>Figure H.6 — Location of semi-concealed box body cutting plan</i>	50
	<i>Figure H.7 — Location of semi-concealed box lid cutting plan</i>	51
	<i>Figure H.8 — Location of semi-concealed box extension cutting plan</i>	52
	Bibliography	53

Summary of pages

This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 53, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 December 2017. It was prepared by Technical Committee GSE/25, *Gas meters*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 8499:2017 supersedes BS 8499:2009, which is withdrawn.

Information about this document

This new edition of BS 8499 incorporates technical changes to Clause 6 and Figure 6 only. It does not represent a full review or revision of the standard, which will be undertaken in due course.

Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular, attention is drawn to the Gas Safety (Installation and Use) Regulations 1998 [1].

Introduction

As competition in the gas industry has increased, the introduction of new products has led to changes to certain designs of meter box for housing gas meters. Consequently, for some types of meter installations the market now comprises several distinct box designs.

The number of different designs is causing difficulties for gas installers, meter asset managers and other parties involved in meter installation.

This Standard aims to address some of the disparities in existing box designs to facilitate the installation of meters across the UK. However, it is recognized that some designs, particularly those for the semi-concealed box, will need to be modified over time to obtain a solution that meets the aspiration of this Standard.

Attention is drawn to the fact that the type and construction of a meter box is subject to approval by the Gas Transporter, and, without this approval, the Gas Transporter may refuse to connect or, in some cases, may disconnect the gas supply to the consumer's premises.

1 Scope

This British Standard specifies requirements for gas meter boxes for use with single gas meter installations conforming to BS 6400, which:

- a) are supplied with gases of the 2nd and 3rd family, with a maximum capacity of 6 m³/h and a maximum operating pressure not exceeding 2 bar; and
- b) incorporate any of the following meters: diaphragm, ultrasonic, credit or prepayment.

It does not apply to multiple meter installations which are installed in the same housing.

NOTE 1 The composition of fuel gases of the 2nd and 3rd family is specified in BS EN 437.

NOTE 2 All pressures quoted in this standard are gauge pressures.

It covers the following designs of meter box, including any associated box extensions:

- 1) built-in;
- 2) surface mounted;
- 3) semi-concealed;
- 4) universal.

It does not cover security shrouds intended to provide additional protection to meter installations.

This British Standard also specifies requirements for the design of the standard meter bracket.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 476-7, *Fire tests on building materials and structures — Part 7: Method of test to determine the classification of the surface spread of flame of products*

BS 746, *Specification for gas meter unions and adaptors*