

Fittings (Caps and Bases)

The part of the lamp that connects into the light fitting is generally known either as the “cap” or “base”. This provides the electrical contact and also often the physical location of the lamp. A vast variety of caps and bases exist in order to help make sure that only the correct type of lamp is used in any given fitting. This section shows many of the most popular fittings.

Bayonet Cap



With its familiar “push and twist” action, “bayonet cap” (also known as BC or B22d) is used on most regular light bulbs. It is 22mm diameter and with two locating lugs.

The “small bayonet cap” (SBC or B15d) is very similar but only 15mm across.

Although generally used for mains voltage lamps, the SBC fitting can also be found in a very small number of specialist low voltage halogen lamps.

There are also many other “BC” variants including the 3-pin BC, B22d-3 sometimes used on Fireglow lamps but perhaps more commonly on High pressure mercury lamps for industrial applications. The BY22d is used on some low-pressure sodium (SOX) lamps.

Edison Screw Cap



Named after the pioneering inventor Thomas Edison, the Edison Screw or “ES” lamp fitting is used worldwide in a vast range of applications.

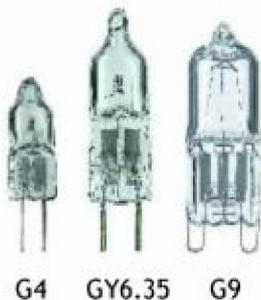
The most popular ES or E27 fitting is 27mm diameter and is widely used in Europe. The USA equivalent is the E26. The SES or E14 is often used for smaller decorative fittings, chandeliers, and appliance bulbs - predominantly in the UK and Europe. CES or E12 is most frequently used in the US and Canada, especially for candle bulbs. The MES fitting is sometimes used in large chandeliers containing perhaps dozens of small lamps.

The GES E40 is rarely used in domestic applications and is typically for lamps over 500W. This must not be confused with the extremely similar US standard 39mm diameter E39 or Mogul Screw fitting

The most commonly used screw fittings are shown in the table below. Other, less frequently used, sizes include E11& E17.

Designation	Diameter	Name	Abbreviation
E5	5mm	Lilliput Edison Screw	LES
E10	10mm	Miniature Edison Screw	MES
E12	12mm	Candelabra Edison Screw	CES (North America)
E14	14mm	Small Edison Screw	SES
E27	27mm	Edison Screw	ES
E40	40mm	Giant Edison Screw	GES

Halogen capsules



Miniature halogen capsule lamps are generally designated by the measure in mm between the pins (for example the G4 has pins 4mm apart).

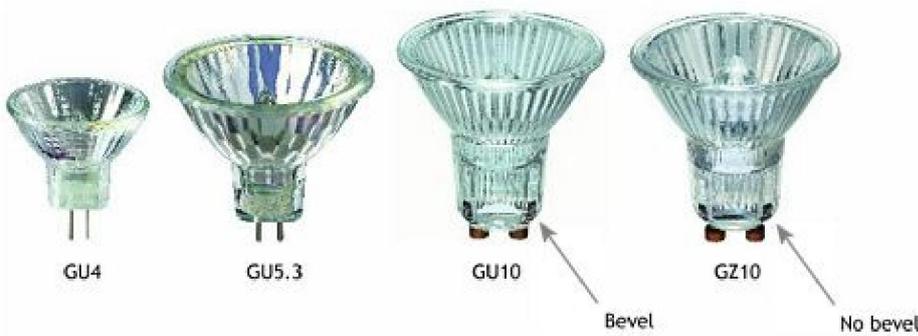
The G4 and GY6.35 are always used in low voltage applications whereas the G9 is for 240v mains use.

Linear Halogen capsules for floodlights and up-lighters have a 7mm R7s cap at each end of a long quartz capsule.



Halogen Spotlights

The most common halogen spots are either push fit (GU4 or GU5.3), low voltage type or twist and lock (GU10 or GZ10) mains versions. PLEASE NOTE the subtle difference between GU10 and GZ10. The GU10 has a bevel around the base but the GZ10 has a square corner. This stops the GZ10 being used in a fitting designed for a GU10 but allows the GU10 to be used in either.



Fluorescent tubes

Fluorescent strips generally have a two-pin fitting at both ends of the tube.

Standard size T8 (25mm) and the larger T12 (38mm) tubes both use the G13 fitting.

The smaller T5 (16mm) tubes use the G5 fitting with 5mm between the two pins.



G5 on 16mm T5 tube

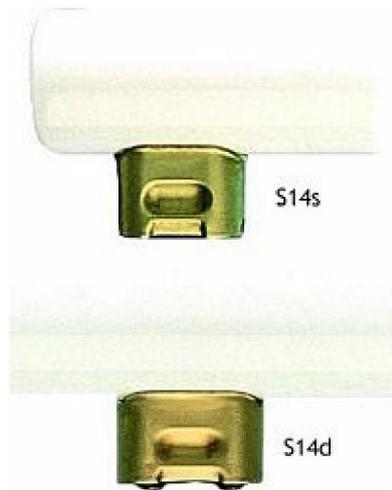


G13 on 25mm T8 tube



G13 on 38mm T12 tube

Incandescent strip lights



Architectural strip lamps are available with two different fittings. One type has two S14s connectors one near either end of the lamp.

The so-called centre-peg version has a single central S14d connector with two contacts.

Conventional strip lights (also known as picture lamps) generally use a 15mm diameter S15s fitting at each end of the lamp.



Compact Fluorescent

Compact fluorescent lamps (CFLs) without integrated control gear generally use push-fit square or rectangular fittings. Those with integral starters use 2-pin fittings those for use with electronic control gear and/or dimmers have 4-pin connectors. Some of the most popular connectors are shown below. Two-pin Triple turn CFLs use the GX24d-1/2/3 fitting (not shown). Four-pin Triple-turn CFLs use the GX24q-1/2/3/4 (not shown). 2D lamps use either the GR8 (2-pin) or GR10q (4-pin) connector.

Single-Turn CFLs



G23 2-pin

2G7 4-pin

2G11 4-pin

Double Turn CFLs



G24d-1 2-pin

G24d-2 2-pin

G24d-3 2-pin

G24q-1 4-pin

G24q-2 4-pin

G24q-3 4-pin