For over 100 years, since the launch of the first Briton door closer in 1907 our brands have been synonymous with the very best in door controls and exit hardware. It is a well-earned reputation based on a tradition of producing high quality, highly engineered products, designed to stand the test of time and to endure the rigours of life in buildings throughout the world. In recent years this hallmark of quality has been applied to a much wider range of products including locks, cylinders, door furniture and accessories. This broad range of products has been brought together to form inspec, an integrated and comprehensive package of specification product solutions and services to suit today’s construction industry.

All our specification products are developed to exceed the latest European standards and where applicable are CE marked and Certifire approved. In most cases products are tested to achieve the highest grades recognised within each standard and are covered by a 10 year mechanical guarantee. It’s what makes Briton, CISA, LCN and Von Duprin names to trust.

Furthermore, because we know that the real world is not like a test lab and that most of the problems associated with disfunctioning hardware are as a result of poor installation, we have strived to ensure that our products are easy to install accurately every time. Our Accufit installation system for example has been proven to significantly reduce these issues.

As the manufacturer of building products it puts our specification team in a unique position to provide the most detailed and expert advice to architects, contractors and other specifiers.

Our trained specification writers and experts not only help our customers adhere to codes and standards – we help advocate for and raise those security standards in the first place, in markets around the world. Because we believe in the quality and craftsmanship of our products, we want to ensure that they meet their full potential. All of our specification consultants provide you with unmatched service and expertise in the hardware purchasing process. From determining the unique needs of your building to being well-versed in various building codes—including local and national building regulations—meeting with an Allegion consultant will leave your architectural vision intact and secure.

During our assessment of your needs, we’ll communicate any areas of concern to you so that we can identify aesthetically and functionally appropriate customisable solutions. What’s more, we offer products that exceed the highest security standards and can communicate seamlessly with other systems and features within a building for the ultimate in safety and security.

Expertise in the design and manufacture of complete door solutions for commercial applications has led to us supplying solutions for many prestigious projects. At the core of our $2 billion business is the knowledge and experience of the 8000 dedicated employees behind our brands. We help our customers navigate their toughest security challenges, and we help builders and property owners differentiate themselves by providing innovative and secure solutions. Operational excellence is a key part of what we do for our customers, and is a focus for our employees.

We are both a RIBA manufacturers’ network member and accredited RIBA core curriculum provider. Our products can also be found in RIBA’s NBS plus specification solution and we are working to make our hardware available within the RIBA BIM Library as part of our dedication to providing a holistic, best practice approach to meet the demands of modern construction.
Case study: Dubai International Airport

Providing life safety solutions for passengers, workers and visitors at this world class entry point for the Middle East.

Currently the 10th busiest airport in the world with over 60 million passengers annually, Dubai International Airport has 72 passport control gates, 30 baggage claim belts and 60 aerobridges for passenger loading and unloading.

The Brief
The challenge for Allegion was in providing security and life safety products for a working facility that addressed all the requirements of passengers, workers and visitors.

The solution
Creating a world class entry point for the Middle East called for a solution which encompassed the design of the terminal’s escape routes to the passenger flow from curb to gate.

Allegion’s solution highlighted on three main aspects of security, reliability and life safety.

Dubai management was concerned about key duplication. A patented proprietary keyway was provided by Schlage for their mechanical access control.

The efficiency of the security is compromised if doors do not close properly, every time. The architects were therefore guided to the specification of the LCN 4000 series of cast iron closers. These heavy duty closers offer the versatility the maintenance personnel required while also offering the durability of 10 million cycles. Such high performance results in low maintenance costs and less replacements with material going to landfill, thus better protecting the environment.

In such a complex environment, life safety is a critical element. The architects selected Von Duprin panic and emergency exit hardware solutions with delayed egress features which guard against unauthorised entry to the tarmac. Von Duprin offers the most durable devices available, being cycle tested to over 1 million cycles.

Case study: Suffolk New College

Ironmongery and complete steel doorsets for the new £44 million replacement building in Central Ipswich.

This new 22,100m² college facility includes engineering and construction workshops, IT suites, creative arts and media areas, general teaching and training rooms, a performance area, hair and beauty studio, including a spa, and a food court. The new development replaces the College’s original buildings, some of which dated back to the 1960s.

Allegion was selected to fulfil the precise ironmongery specification. As a result a large quantity of ironmongery from the Briton and CISA product ranges was supplied in association with a steel doorset manufacturer to achieve the high performance standards and aesthetic requirements set out in the specification.

Everything from door controls, lockcases, exit hardware and cylinder locks through to door furniture and pull handles were installed throughout the building to provide a sense of uniformity and continuity throughout the scheme.

Over 550 Briton 1100 Series overhead door closers were supplied as they offer a concise, cost effective door closing solution together with a wide variety of features and options.

Installation of Briton panic exit hardware, together with stainless steel pull handles means that the door furniture provides a feeling of continuity and conformity across the whole scheme.

Briton 7500 Series cylinders together with Briton 5500 Series lockcases added to the co-ordinated design for the project. The 7500 Series is especially designed for this type of medium security application. It features a patented system which makes unauthorised copying of keys virtually impossible. The combination of key control and additional functions makes the 7500 Series ideally suited for school and college applications.
Exceeding the highest industry standards

Products which are generically referred to as ‘architectural ironmongery’ are heavily regulated by European standards requiring mechanical, durability and corrosion testing, and by fire testing requirements. It provides the construction industry with fire safety and security products which have proven and reliable performance, with consistent manufacturing quality. Allegion products are designed and manufactured to meet, or in many cases, exceed these stringent requirements. Wherever applicable our products are CE marked, guaranteeing their performance and ensuring they are fit for purpose.

Many architectural ironmongery products are required to be CE marked in accordance with the Construction Products Directive, including panic and emergency exit hardware and door controls. From July 2013 the introduction of mandatory CE marking under the Construction Products Regulation came into force. For any building product which is covered by a harmonised standard, it will be a legal requirement for that product to be CE marked. A number of EN standards covering exterior and interior doorsets are at various stages of development. Consequently the mandatory CE marking of doorsets came into force from July 2013 (initially on exterior doors only). The only way to meet this requirement is for all parts of a doorset; the door, frame, any seals, glazing and all the associated ironmongery items required for the doorset to perform it designated function, to be supplied from the same source and be CE marked as a doorset. This applies even if the individual components are themselves CE marked. At Allegion we are accustomed to working with all major timber and steel door manufacturers to ensure our products can be integrated into fully compliant and CE marked doorset packages wherever applicable. All our CE marked products are available with a Declaration of Performance document which can be downloaded from the Allegion website.

Currently the only completed standard is that for external doors with no fire or smoke resistance. The standards for internal doors will follow. A final date for completion is yet to be announced by the European Commission but is expected to occur no earlier than 2015.

All Allegion products are designed to satisfy a comprehensive array of performance requirements including fire testing on timber and steel door applications and durability testing, in some cases beyond 2 million test cycles.

Accessibility Issues

The concept of universal access is not new but it still provides a challenge for the construction industry. To meet obligations under the Equalities Act, Approved Document M of The Building Regulations and BS 8300 continue to be the yardsticks by which conformity is measured. Allegion is able to offer guidance and product solutions to cover the following areas:

- Low energy door controls
- Electromagnetic door controls
- High efficiency mechanical door controls to meet the conflicting requirements of BS 8300 and fire safety requirements of EN 1154
- Colour contrast in ironmongery for visual impairment
- Comprehensive fittings programme for washrooms, showers and WCs
- Ironmongery which conforms to the recommendations of BS 8300
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Briton door hardware is ideally suited to commercial applications which benefit from complete integration of design and high quality finish across the hardware requirement of the building combined with very high levels of performance.
Briton 4700 Series specification door hardware

Quality starts with performance and durability

The first point of contact for anyone entering and moving around a building is the door hardware, whether that is a pull handle or a lever handle. In addition to having the right look, the hardware you select must have the right feel and finish and be backed up by a level of performance which will ensure the hardware is suited to the application and the amount of use it will have to endure.

The Briton Specification Series of door hardware is a high quality, high specification range of lever and pull handle door furniture in satin stainless steel. The range encompasses the complete hardware requirement of the large majority of doorsets. Lever furniture features a unique fixing method which provides a firm, positive and highly durable installation. When combined with designs which meet the requirements of BS 8300, successful fire testing to 90 minutes on timber doors and 4 hours on steel doors and our 10 year warranty, Briton Specification Series hardware is ideally suited to new build or refurb installations which require a classical contemporary appeal.

To support the performance characteristics, Briton Specification hardware has the following features:
- Back to back fixing bolts and threaded bushes on lever furniture provide a strong through fixing.
- Spindle is fixed to the inside and the outside lever handle by "break thru" grub screws providing greater security and durability.
- All lever handles achieve EN 1906 Grade 4 1, the highest grade of use within the standard 2.
- Grub screw fixings on levers concealed from view on the underside.
- Slimline roses only 4mm thick.
- Precision engineered levers are prefixed to the rose or plate inner by hi-tensile circlip.
- Unique ‘ClickFit’ system provides a positive snap fit for pressed rose and escutcheon covers.
- Torx head fixings supplied with all leversets and plate mounted levers provide a high quality look and minimise tampering.
- Comprehensive tested to EN 1634 for use in timber fire doors up to 90 minutes and steel doors up to 4 hours (see fire test certificate for further details).
- All stainless steel construction Grade 304 with Grade 3 corrosion resistance to EN 1670.

1 Subject to successful testing commencing January 2015
2 Grade 4 category of use is defined as suitable for high frequency use on doors which are subject to frequent violent use, e.g. football stadiums, oil rigs, barracks, public toilets.

Ref: 4701.20.140
Type: Return to door, round bar lever
Mounted on 52mm dia. concealed fix roses with bolt through fixings

Dimensions: Ø20 x 140mm
Certification:
- EN 1906 Grade 4
- EN 1670 Grade 3
- EN 1634 Up to 90 minutes (timber)
- EN 1634 Up to 4 hour (steel)

Other: Approved for use with escape locks to EN 179 for emergency exit applications. Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)
Briton 4700 Series specification door hardware - Lever furniture

Briton

Classically contemporary style

Ref: 4701.20.175
Type: Extended return to door, round bar lever
Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions: Ø20 x 175mm
Certification:
- EN 1906 Grade 4
- EN 1670 Grade 3
- EN 1634 Up to 90 minutes (timber)
- EN 1634 Up to 4 hr (steel)
Other:
- Approved for use with escape locks to EN179 for emergency exit applications
- Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

Ref: 4701.22.140
Type: Return to door, round bar lever
Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions: Ø22 x 140mm
Certification:
- EN 1906 Grade 4
- EN 1670 Grade 3
- EN 1634 Up to 90 minutes (timber)
- EN 1634 Up to 4 hr (steel)
Other:
- Approved for use with escape locks to EN179 for emergency exit applications
- Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

Ref: 4703.20.140
Type: Straight, round bar lever
Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions: Ø20 x 140mm
Certification:
- EN 1906 Grade 4
- EN 1670 Grade 3
- EN 1634 Up to 90 minutes (timber)
- EN 1634 Up to 4 hr (steel)
Other:
- Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)
Briton 4700 Series specification door hardware - Lever furniture

**Ref:** 4704
**Type:** Straight mitred round bar lever
**Mounted on 52mm dia. concealed fix roses with bolt through fixings**
**Dimensions:** Ø20 x 140mm
**Certification:** EN 1906 Grade 4
EN 1670 Grade 3
EN 1634 Up to 90 minutes (timber)
EN 1634 Up to 4 hr (steel)
**Other:** Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

---

**Ref:** 4705.20.140
**Type:** Curved mitred round bar lever
**Mounted on 52mm dia. concealed fix roses with bolt through fixings**
**Dimensions:** Ø20 x 135mm
**Certification:** EN 1906 Grade 4
EN 1670 Grade 3
EN 1634 Up to 90 minutes (timber)
EN 1634 Up to 4 hr (steel)
**Other:** Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

---

**Ref:** 4706
**Type:** Wing design formed lever
**Mounted on 52mm dia. concealed fix roses with bolt through fixings**
**Dimensions:** 63 x 130mm
**Certification:** EN 1906 Grade 4
EN 1670 Grade 3
EN 1634 Up to 90 minutes (timber)
EN 1634 Up to 4 hr (steel)
**Other:** Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

---

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)
Briton 4700 Series specification door hardware - Lever furniture

**Briton**

**Ref:** 4707
**Type:** Hollow cut away flat lever
**Mounted on 52mm dia. concealed fix roses with bolt through fixings**
**Dimensions:** 56 x 135 mm
**Certification:** EN 1906 Grade 4
EN 670 Grade 3
EN 634 Up to 90 minutes (timber)
EN 634 Up to 4 hr (steel)
**Other:** Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors

---

**Ref:** 4708
**Type:** Hollow curve form lever
**Mounted on 50mm dia. concealed fix roses with bolt through fixings**
**Dimensions:** 60 x 122 mm
**Certification:** EN 1906 Grade 4
EN 670 Grade 3
EN 634 Up to 90 minutes (timber)
EN 634 Up to 4 hr (steel)
**Other:** Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors

---

**Ref:** 4710
**Type:** Bathroom turn & indicator
**Bolt through fixings supplied as standard suitable for doors 44mm-54mm**

**Ref:** 4711
**Type:** Bathroom extended turn & indicator

---

**Ref:** 4713.4 4714.4 4715.4
**Description:** Euro profile cylinder escutcheon Lever key escutcheon Blank escutcheon
**Dimensions:** Ø52 x 4 mm Ø52 x 4 mm Ø52 x 4 mm
**Other:** Concealed fixings with snap on cover. Supplied as pairs as standard. Bolt through fixings supplied as standard suitable for doors 44mm-54mm

---

*Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)*

*Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)*
Briton 4700 Series specification door hardware - Lever furniture

**Briton**

Ref: 4702BP.B.22.140 4702BP.WC.22.140

**Description:** Plate mounted lever handle Ø22
- Blank plate for use with latches
- Plate mounted lever handle Ø22
- Backplate with cutout for euro profile cylinders for use with sashlocks

**Dimensions:** 170 x 170 x 2mm

**Certification:**
- EN 1906 Grade 4 & EN 1670 Grade 3.
- Included in fire tests to EN 1634 (see fire test reports for further information)

**Other:** Supplied as a pair with bolt through fixings and 8mm spindle suitable for doors 44 - 54mm *

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

---

Ref: 4702BP.WC

**Description:** Plate mounted lever handle Ø22
- Backplate with bathroom function turn and indicator

**Dimensions:** 170 x 170 x 2mm

**Certification:**
- EN 1906 Grade 4 & EN 1670 Grade 3.
- Included in fire tests to EN 1634 (see fire test reports for further information)

**Other:** Supplied as a pair with bolt through fixings and 8mm spindle suitable for doors 44 - 54mm*
- Plate assemblies are handed - see below

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

---

**Backplate handing**

**Left hand**
4702BP.WC.22.140.SS.L

**Right hand**
4702BP.WC.22.140.SS.R

---

Briton 4700 Series specification door hardware - Pull handles

**Please note:**
Fixing packs for all pull handles must be ordered separately (see page 27)

**Description:** G pull handle - Round bar section

Ref:
- 4721.20.200
- 4721.22.200
- 4721.20.300
- 4721.22.300
- 4721.20.400
- 4721.22.400
- 4721.20.600
- 4721.22.600

**Diameter:** mm 20 22 20 22 20 22 20 22

**Centres:** 200 300 400 600

---

**Description:** Mitred handle - Round bar section

Ref:
- 4722.20.200
- 4722.22.200
- 4722.20.300
- 4722.22.300
- 4722.20.400
- 4722.22.400
- 4722.20.600
- 4722.22.600

**Diameter:** mm 20 22 20 22 20 22 20 22

**Centres:** 200 300 400 600

---

**Dimensions:**
- 170 x 170 x 2mm

**Certification:**
- EN 1906 Grade 4 & EN 1670 Grade 3.
- Included in fire tests to EN 1634 (see fire test reports for further information)

**Other:** Supplied as a pair with bolt through fixings and 8mm spindle suitable for doors 44 - 54mm *

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

---

Please note:
Fixing packs for all pull handles must be ordered separately (see page 27)
Briton 4700 Series specification door hardware - Pull handles

Please note:
Fixing packs for all pull handles must be ordered separately (see page 27)

### Cranked pull handle - Round bar section
- **Ref:** 4723.32.400 4723.32.600
- **Diameter:** mm 32 32
- **Centres:** 400 600

### Pillar pull handle - Round bar section
- **Ref:** 4724.32.400 4724.32.600
- **Diameter:** mm 32 32
- **Centres:** 200 400

### Pull handle fixings
All Briton 4700 Series pull handles can be ordered individually and must be ordered together with a standard fixing pack which contains all the components required to mount the pull handle in any of the 4 applications shown below.

For back to back assembly simply order 2 individual pull handles plus the standard fixing pack.

### Bolt through - single pull handle

### Secret fix - single pull handle

### Back to back pair on timber door

### Back to back pair on glass door

### Rose mount fixings
Briton 4721 and 4722 pull handles can be ordered with an optional face fixed rose. One fixing pack is required for each pull handle and they must be ordered according to the pull handle diameter (20 or 22mm).

Roses are supplied with stainless steel face fixing screws. Snap fit push on covers conceal all fixings.

### Standard fixing pack for timber, metal or glass doors
- **Ref:** 4726
- **Description:** Standard fixing pack for timber, metal or glass doors

### Face fixed rose mounting kit for 20mm diameter pull handles
- **Ref:** 4725.20
- **Description:** Face fixed rose mounting kit for 20mm diameter pull handles.

### Face fixed rose mounting kit for 22mm diameter pull handles
- **Ref:** 4725.22
- **Description:** Face fixed rose mounting kit for 22mm diameter pull handles.
A range of accessories completes the integrated door hardware package

Accessories
The Briton Specification Series includes a selection of additional components required to complete a doorset specification. All accessory components are manufactured in satin stainless steel to match the principal items.
For lock cases and cylinders please refer to page 81.
For surface mounted or concealed door controls please refer to page 35.
Symbols & signage
A range of 76mm dia. face fixed stainless steel signs and symbols are available.

- 4750.01 Unisex symbol
- 4750.02 Male symbol
- 4750.03 Female symbol
- 4750.04 Disabled symbol
- 4750.05 WC sign
- 4750.06 Shower symbol
- 4750.07 Baby Change symbol
- 4750.08 Push
- 4750.09 Pull
- 4750.10 Fire door keep shut
- 4750.11 Fire door keep locked
- 4750.12 Automatic fire door keep clear

Flush bolts
Used to secure the inactive leaf of an equal or unequal pair of doors. The Briton Specification series includes a range of stainless steel lever action flush bolts. Available square or radius ended and in various lengths to suit door height.

Tested to EN 12051:1999 and Graded 43 - 0131

- Ref: Description
- 4735.R.20.202 202mm x 20mm Radiused
- 4735.R.20.300 300mm x 20mm Radiused
- 4735.R.20.450 450mm x 20mm Radiused
- 4735.R.20.600 600mm x 20mm Radiused
- 4735.R.20.914 914mm x 20mm Radiused
- 4735.S.20.202 202mm x 20mm Square
- 4735.S.20.300 300mm x 20mm Square
- 4735.S.20.450 450mm x 20mm Square
- 4735.S.20.600 600mm x 20mm Square
- 4735.S.20.914 914mm x 20mm Square

Flush bolts - Fully enclosed
Options: With square or radius ended. Supplied singly.

- Ref: Size End Type
- 4739.R.18.225 225mm x 18mm Radiused
- 4739.S.18.225 225mm x 18mm Square

Plunger type dust excluding floor socket for use with flush bolts - concealed fixing

- Ref: Description
- 4736 Plunger type dust excluding floor socket for use with flush bolts - concealed fixing
- 4737 Easy clean floor socket for use with flush bolts - face fixing.

Automatic flush bolt - Bolt is actuated by the closing action of the door. Meets ANSI A156.3 Type 25. Supplied as a pair. Fully automatic - inactive door is latched, bolts are extended when active door closes. Bolts retract when active door is opened. Low activation forces - top bolt has no spring tension.
Briton 4700 Series specification door hardware - Completing the package

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Dimensions</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>U696</td>
<td>Door viewer - small</td>
<td>Ø45 x 24mm</td>
<td>Supplied with stainless steel fixings</td>
</tr>
<tr>
<td>U698</td>
<td>Door viewer - large</td>
<td>Ø46 x 26mm</td>
<td></td>
</tr>
<tr>
<td>U697</td>
<td>Floor mounted door stop</td>
<td>Ø40 x 38mm</td>
<td></td>
</tr>
<tr>
<td>4744</td>
<td>Single hook - small, face fixed</td>
<td>Ø46 x 26mm</td>
<td></td>
</tr>
<tr>
<td>4745.1</td>
<td>Single hook - large, face fixed</td>
<td>Ø50 x 90mm</td>
<td></td>
</tr>
<tr>
<td>4745.2</td>
<td>Double hook - large, face fixed</td>
<td>Ø48 x 100mm</td>
<td></td>
</tr>
</tbody>
</table>

All hooks supplied with stainless steel face fixings
Door co-ordinator
The use of a co-ordinator is required for double doors where one leaf must close first, for example rebated double doors fitted with door closing devices. The co-ordinating unit is mounted on the underside of the transom. The trigger arrangement of the co-ordinator ensures the active leaf is held open until the inactive leaf closes and triggers the release of the active leaf.

The Briton door co-ordinator has the following features:
- CE marked and certified to EN 1158
- Aluminium section 41 x 16mm
- Anodised aluminium finish
- Fire tested to EN 1634 for 2 hour rating on timber and mineral composite, 4 hour on steel doors.

Calculating the correct size
The unit is designed to suit equal or unequal pairs according to the minimum door opening widths. The co-ordinator is available in different lengths to suit different door configurations and sizes. The co-ordinator must be at least 150mm longer than the active leaf and less than the overall door opening width measured between frame stops.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COR32</td>
<td>Channel length 813mm</td>
</tr>
<tr>
<td>COR42</td>
<td>Channel length 1067mm</td>
</tr>
<tr>
<td>COR52</td>
<td>Channel length 1320mm</td>
</tr>
</tbody>
</table>

The need to satisfy a variety of performance requirements including fire safety, convenience, privacy, disabled access, reliability and the ability to cope with very high traffic requires a robust and comprehensive range of solutions.

The Briton and LCN ranges of door controls are capable of all that and more, whether the application is a busy hospital, school or university or the heavy duty requirements of transport applications.
An essential element in safeguarding lives and property

EN 1154 – A harmonised standard designed for life safety

The principal objective of a door closer is to close a door and in the case of unlatched fire doors in a corridor, to keep the doors closed in the event of a fire. Most applications where the specification of a door closing device is mandatory, must use a product which conforms to the requirements of European Standard EN 1154 (or EN 1155 for electrically controlled units) and be CE marked accordingly.

Closers which are controlled by an electromagnetic function must comply with the additional requirements of EN 1155.

Beware: Some door closers are designed for life safety – only grade 1 is identified. The closing force required to fulfill the life-saving fire safety function demanded by EN 1154 can, for some elderly or disabled people, be difficult to overcome and the door can become a barrier to safe and easy access for them.

Within EN 1154 seven closer power ratings are identified. These are theoretical figures and the final closing power of any door closing device will be subject to any number of variables such as:

- Accuracy of closer installation
- Accuracy of door installation
- Erosion in hinges
- Negative or positive air pressure

Because of such variables, the specification of an adjustable door closer is recommended to allow for site variables.

All forms of “Controlled Door Closing Devices” are covered by a harmonised European Standard EN 1154. It provides details on product types and classifies products by use, test cycles, door mass, corrosion resistance and product performance requirements using a six digit classification code.

The closing force required to fulfill the life-saving fire-safety function demanded by EN 1154 can, for some elderly or disabled people, be difficult to overcome and the door can become a barrier to safe and easy access for them. As a consequence there is a conflict between the required closing force for fire safety and the desirable opening resistance which requires special consideration in the specification process. We strongly recommend you discuss such applications with an Allegion Specification Consultant who can advise on the most appropriate solution.

The closing force required to fulfill the life-saving fire-safety function demanded by EN 1154 can, for some elderly or disabled people, be difficult to overcome and the door can become a barrier to safe and easy access for them. As a consequence there is a conflict between the required closing force for fire safety and the desirable opening resistance which requires special consideration in the specification process. We strongly recommend you discuss such applications with an Allegion Specification Consultant who can advise on the most appropriate solution.

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Where closer power is stated it will usually apply to a closer fitted either in Regular fixing applications (in the case of projecting arm closers) or in Door mounted push side applications (for slider arm closers).

The closer power may vary for other mounting applications and consequently we recommend you check with your Allegion Specification Consultant or technical team.

Mounting positions and closer power

<table>
<thead>
<tr>
<th>EN Size</th>
<th>Max. door weight (kg)</th>
<th>Max. door width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>160</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>180</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
<td>200</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>240</td>
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<tr>
<td>6</td>
<td>120</td>
<td>280</td>
</tr>
<tr>
<td>7</td>
<td>160</td>
<td>320</td>
</tr>
<tr>
<td>8</td>
<td>200</td>
<td>360</td>
</tr>
</tbody>
</table>

EN Closer power settings

Within EN 1154 seven closer power ratings are identified according to the maximum door leaf weight and width. These are theoretical figures and the final closing power of any door closing device will be subject to any number of variables such as:

- Accuracy of closer installation
- Accuracy of door installation
- Erosion in hinges
- Negative or positive air pressure

Because of such variables, the specification of an adjustable door closer is recommended to allow for site variables.

The closing force required to fulfill the life-saving fire-safety function demanded by EN 1154 can, for some elderly or disabled people, be difficult to overcome and the door can become a barrier to safe and easy access for them. As a consequence there is a conflict between the required closing force for fire safety and the desirable opening resistance which requires special consideration in the specification process. We strongly recommend you discuss such applications with an Allegion Specification Consultant who can advise on the most appropriate solution.

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A guide to specifying door closers

**Easy opening, reliable closing**

In contrast to a conventional rack and pinion door closer in a slide channel application, the linear cam action principle of the Briton Cam Action Series of closer is extremely efficient. The initial opening action principle of the Briton Cam Action Series of closer in a slide channel application, the linear cam action overhead door closer provides guidance in establishing recommended maximum opening forces for door control to assist less able users. High efficiency Briton closers which can be used to meet the required levels of opening and closing forces are marked with the "Wheelchairs Symbol" to indicate installation, hinge friction, door seals and variable air pressure can all have a bearing on the opening resistance of the final doorset.

For some applications; schools, colleges and leisure centres, it may be more appropriate to use electromagnetic hold open or swing free closers or a powered opening solution. These must be CE marked in accordance with the requirements of EN 150. All these options are available within the Allegion product portfolio.

For additional guidance in the selection process please contact Allegion on 01922 707400.

Selecting the right closer

In most cases selecting the most appropriate door control will be dependent on a number of factors and the priority of each. These will include:

- Frequency of use
- Type of application (e.g. schools, library, factory)
- User profile - The Equality Act consideration
- Door situation/size/weight/force
- Budget
- Aesthetics

**The importance of accessibility**

The Equalities Act - disability legislation

Legislation aimed at providing universal accessibility of buildings requires service providers to make "reasonable adjustments to the physical features of their premises to overcome barriers to access." Approved Doc M of the Building Regulations and BS 8300 both provide guidance in establishing recommended maximum opening forces for door control to assist less able users. High efficiency Briton closers which can be used to meet the required levels of opening and closing forces are marked with the "Wheelchairs Symbol" to indicate installation, hinge friction, door seals and variable air pressure can all have a bearing on the opening resistance of the final doorset.

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Use and abuse

For some applications; schools, colleges and leisure centres, it may be more appropriate to use electromagnetic hold open or swing free closers or a powered opening solution. These must be CE marked in accordance with the requirements of EN 150. All these options are available within the Allegion product portfolio.

For additional guidance in the selection process please contact Allegion on 01922 707400.
Briton 2700 Series - Cam action

Briton 2700 Series - offering the benefits of easy opening and reliable closing

The Briton 2700 Series is a precision manufactured cam-action, slide channel door closer, in a compact, overhead, surface fixed unit. Providing exceptional ease of use by reducing the resistance encountered when opening the door, the Briton 2700 Series bridges the gap between the requirements for fire and smoke control and ease of operation required for accessibility.

Features & Benefits

- Cast iron body with a naturally high graphite content is self lubricating, providing high levels of durability and long life performance.
- High performance cam action technology allows reliable closer power setting for fire door applications yet still be easy to open.
- Full complement bearings provide increased bearing load for efficient operation and improved reliability.
- FAST PowerAdjust dial feature allows installers to see the current power setting.
- Silicon chrome alloy steel springs for superior strength and reliability.
- High quality hydraulic fluid with built-in temperature compensation.
- Unique ‘Accufit’ installation template and mounting plate ensures a quick, simple and accurate installation.

The Briton 2700 Series is CE marked to EN1154 (EN1155 for electronic variants) and fire tested to EN1634 on timber doors to achieve a 2 hour fire rating, and 1 hour for metal doors.

See how easy it is to install. Scan the link or go to: http://tinyurl.com/pqc9eb5

Briton 2700 with standard A-Line cover with matching silver arm and track

Briton 2700 with Softline cover in satin stainless steel with matching arm and slide track

Standard closers with without mechanical hold open (door mounted - pull side shown).

<table>
<thead>
<tr>
<th>Product features</th>
<th>Product references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull side door / Push side transom mounting</td>
<td>2720BD.T 2721BD.T 2720BD.TE 2721BD.TE</td>
</tr>
<tr>
<td>Push side door / Push side transom mounting</td>
<td>2-5° 2-5° 3-5° 3-5°</td>
</tr>
<tr>
<td>Variable closing power EN size</td>
<td>2-5° 2-5° 3-5° 3-5°</td>
</tr>
<tr>
<td>FAST power adjust dial</td>
<td></td>
</tr>
<tr>
<td>Accufit template &amp; Accufit mounting plate</td>
<td></td>
</tr>
<tr>
<td>Maximum angle of opening (pull side)</td>
<td>180° 180° 120° 120°</td>
</tr>
<tr>
<td>Separate closing speed &amp; latch action adjustment</td>
<td></td>
</tr>
<tr>
<td>Adjustable backcheck</td>
<td></td>
</tr>
<tr>
<td>Adjustable delayed action</td>
<td></td>
</tr>
<tr>
<td>In-built temperature compensation</td>
<td></td>
</tr>
<tr>
<td>Mechanical hold-open facility</td>
<td></td>
</tr>
<tr>
<td>Electromagnetic hold-open facility</td>
<td></td>
</tr>
<tr>
<td>Matching slide channel, arm &amp; cover finish</td>
<td></td>
</tr>
<tr>
<td>Dimensions (body L x D x H mm)</td>
<td>289 x 57 x 70 289 x 57 x 70 289 x 57 x 70 289 x 57 x 70</td>
</tr>
<tr>
<td>Channel/slide arm</td>
<td>443 x 20 443 x 20 575 x 26 575 x 26</td>
</tr>
<tr>
<td>Finishes available</td>
<td>SS; SS; PBS; SES (for both cover options and matching track)</td>
</tr>
<tr>
<td>Warranty period</td>
<td>10yrs 10yrs 10yrs mechanical / 2yrs electrical</td>
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<tr>
<td>CE Classification</td>
<td>4B2-5113 3B3-5113</td>
</tr>
</tbody>
</table>

* Standard □ Available as an option/variant

* EN 2 - 4 when push-side transom mounted
**Briton 2300 Series - Easy opening cam action technology in a simple, slimline package**

The Briton 2300 Series incorporates the same high efficiency cam action as the Briton 2700 Series, providing the same exceptional ease of use by reducing the resistance encountered when initialising the opening of the door.

The Briton 2300 Series is offered as a simplified version of the Briton 2700 and is available with either a slide in trimplate or with a curved ‘Softline’ all-over cover which will suit with other Briton overhead door controls.

**Features & Benefits**
- Extruded aluminium body.
- High performance cam action technology allows reliable closer power setting for fire door applications yet remains easy to open.
- Full complement bearings provide increased bearing load for efficient operation and improved reliability.
- Adjustable power, EN 2-4.
- Silicon chrome alloy steel springs for superior strength and reliability.
- Full complement bearings provide increased bearing load for efficient operation and improved reliability.
- Adjustable power, EN 2-4.
- High quality hydraulic fluid with built-in temperature compensation.
- Radiused slide in cover and spindle cap conceals the main door closer fixings and adjustment screws.
- Alternative ‘Softline’ cover, secured by simple unobtrusive spring clips.
- Co-ordinated track design with concealed fixings.
- Accufit template provides quick and easy installation.
- Dimmable backcheck.
- Adjustable delayed action.
- In-built temperature compensation.
- Available as an option.
- When door mounted, transom mounted closers are restricted to 120° opening.

The Briton 2300 Series is CE marked to EN1154 and fire tested to EN1634 on timber doors to achieve a 2 hour fire rating. Certifire approval pending.

**Product features**

<table>
<thead>
<tr>
<th>Product features</th>
<th>Product references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull side door / Push side transom mounting</td>
<td>2320B.T 2321B.T</td>
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<tr>
<td>Push side door / Pull side transom mounting</td>
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</tr>
<tr>
<td>Variable closing power EN size</td>
<td>2 - 4 2 - 4</td>
</tr>
<tr>
<td>Accufit template</td>
<td></td>
</tr>
<tr>
<td>Maximum angle of opening*</td>
<td>180° 180°</td>
</tr>
<tr>
<td>Separate closing speed &amp; latch action adjustment</td>
<td></td>
</tr>
<tr>
<td>Adjustable backcheck</td>
<td></td>
</tr>
<tr>
<td>Adjustable delayed action</td>
<td></td>
</tr>
<tr>
<td>In-built temperature compensation</td>
<td></td>
</tr>
<tr>
<td>Mechanical hold-open</td>
<td></td>
</tr>
<tr>
<td>Matching slide channel, arm &amp; cover finish</td>
<td></td>
</tr>
<tr>
<td>All over metal cover</td>
<td></td>
</tr>
<tr>
<td>Dimensions (with trimplate L x D x H mm)</td>
<td>240 x 56 x 49 240 x 56 x 49</td>
</tr>
<tr>
<td>Dimensions (with cover L x D x H mm)</td>
<td>270 x 68 x 63 270 x 68 x 63</td>
</tr>
<tr>
<td>Channel/slide arm</td>
<td>444 x 20 444 x 20</td>
</tr>
<tr>
<td>Warranty period</td>
<td>10yrs 10yrs</td>
</tr>
<tr>
<td>CE Classification</td>
<td>4 B 2-11 13</td>
</tr>
</tbody>
</table>

See how easy it is to install. Scan the link or go to: [http://tinyurl.com/2nra5f](http://tinyurl.com/2nra5f)
Briton 2400 Series - Cam action

Briton 2400 Series - Cam action in a compact concealed overhead closer

Versatile and elegant

The Briton 2400 Series is a precision manufactured cam-action, slide channel door closer, in a compact concealed unit. With the closer body mounted within the top of the door and the slide track within the head frame, the Briton 2400 Series offers high resistance to abuse and when being fully concealed when the door is closed, offers a highly aesthetic solution.

Providing exceptional ease of use by reducing the resistance encountered when opening the door, the Briton 2400 Series bridges the gap between the requirements for fire and smoke control and ease of operation required for accessibility.

Due to the door and frame preparation required, the Briton 2400 is ideally suited to factory door preparation.

The Briton 2400 Series is CE marked to EN1154 and fire tested to EN1634-1 on 54mm timber doors to achieve a 90 minute fire rating when installed with the approved intumescent gasket set (Briton 2420.IP). Certifire approval pending.

Features & Benefits

- Compact, extruded aluminium body and slide track requiring minimal removal of material from the door and frame.
- High performance cam action technology allows reliable closer power setting for fire door applications yet still be easy to open.
- Suitable for non-fire doors 44mm thick and fire doors 54mm thick.
- Needle roller bearings provide increased bearing load for efficient operation and improved reliability.
- Adjustable power, EN 2-4.
- Silicon chrome alloy steel springs for superior strength and reliability.
- High quality hydraulic fluid with built-in temperature compensation.
- Powder coated or plated steel track arm with nylon runner.
- Non handed design is suitable for all applications and has a maximum opening angle of 120°.
- Optional cushion stop (ref: 2420.CS) helps prevent doors coming into contact with adjacent walls (note: this is not a backcheck function).
- Optional mechanical hold-open unit can be retrofitted into the slide track (Not to be used on fire door applications).

Product features

- CE marked and EN 1154 compliant
- Variable closing power EN size 2 - 4
- Min. door thickness:
  - FD60 - timber doors: 54mm
  - FD90 - composite doors: 60mm
- Maximum angle of opening: 120°
- Separate closing speed & latch action adjustment
- Cushion stop
- Hold open facility
- Arm & track finish: 5kvar, SS or PS
- Dimensions (L x D x H mm): 242 x 42 x 32
- Channel/slide arm: 440 x 17
- Warranty period: 10yrs
- CE Classification: 3 B 2-4 1 1 3

Specification Tip

Intumescent gasket set (2420.IP)

A significant amount of fire resisting doreset material is removed when concealed closers are mortised into the door leaf. The intumescent gasket set will provide the additional performance that is required to protect the door from integrity failure during fire conditions.

It is particularly important with these closers to check that the details of the fire test certification are relevant to your intended door application.

- Standard
- Available as an option/variant
The LCN 4040 Series is LCN’s most durable and flexible heavy duty closer, fully certified to both EN 1154 and to ANSI A156.4. With over 10 million test cycles undertaken, the LCN4040 will cope with even the most gruelling applications and has earned an unrivalled reputation for extreme durability and reliability in use.

Available for regular, transom and parallel mounting applications plus versions with track arm and electromagnetic hold-open.

The LCN 4040SE slide arm closer with electromagnetic hold-open facility within the track.

Features & Benefits
- Cast iron body and forged steel armset.
- Double heat treated steel pinion for exceptional resistance to wear and tear.
- Silicon chrome alloy steel springs for superior strength and reliability.
- Full compliment low friction bearing.
- LCN Green Dial spring force indicator to provide visual identification of the closer power setting.
- Self adhesive installation template reduces installation time and dramatically improves accuracy of fitting.
- ‘All-over’ metal cover in a range of architectural finishes with matching arms (or track).
- Electromagnetic hold-open version (4040 SE (hold-open between 90˚ to 120˚)).

The LCN 4040 Series is tested and certified under ANSI Standard A156.4 and UL listed for use on timber doors to achieve a 2 hour fire rating and 1 hour for steel doors.
Briton 2130 Series - Rack & pinion closers

Briton 2130 Series - offering the highest quality of performance and design choice

The Briton 2130 Series of door controls has been created to offer a comprehensive package of solutions to suit any door closing application. Developed in conjunction with installers, the 2130 Series builds on the engineering excellence of previous Briton door controls by incorporating one of the simplest, quickest and most accurate installation systems available. This combination of engineering quality and good looks - with three body cover options and over 15 finishes - creates a truly versatile architectural solution for any 'Extra Heavy Duty' application.

The highly versatile 2130 Series was designed to combat the practical and economic concerns with conventional door closer installation. As a result it can demonstrate an average 30 - 35% labour saving on installation. But the benefits are much deeper than this. The increased degree of accuracy achieved when installing a Briton 2130 Series closer dramatically improves its efficiency and longevity.

The Briton 2130 Series is CE marked to EN1154 (EN1155 for electronic variants), fire tested to EN1634 and Certifire Approved for use on timber doors up to a 2 hour fire rating, and 4 hour for steel doors depending on the choice of cover (see fire certification for full details).

Features & Benefits
- Cast iron body provides rugged durability.
- Hardened steel rack and pinion mechanism with needle roller bearings for exceptionally smooth and efficient operation and high levels of durability.
- Silicon chrome alloy steel springs for superior strength and reliability.
- High quality hydraulic fluid with built-in temperature compensation.
- Quick release arm assembly allows the closer to be disconnected and reconnected quickly without the need to alter the arm arrangement. This speeds up the installation process and enables the closer body and bracket to be fixed independently allowing for much greater accuracy.
- Unique Accufit backplate system reduces installation time and dramatically improves accuracy of fitting.
- Choice of ‘all-over’ cover options in a range of architectural finishes with matching arms.
- Fixed or power adjustable depending on model from EN 2 - 6 (refer to specification table).
- Also available as a slide track closer.
- Multiple adjustable functions depending on model (refer to specification table).
- Optional hold open armset is adjustable from 80˚ to 180˚ opening angle. (Not to be used on fire door applications).

Electromagnetic hold open option, Briton 2130B. TE with L cover in satin stainless steel finish. Also available with Classic square cover.

Briton 2130B.T with ‘L’ cover in satin stainless steel.

Briton 2130B.T with ‘C’ cover in satin stainless steel.
Combining high performance with a variety of design options to suit all applications

Within the Briton 2130 Series there are a number of options to choose from to suit your application. These include:

- Projecting arm or slide track options which provide a neat architectural look and reduce the chances of misuse.
- Three cover options, offering the Classic Briton closer cover which will suit with other Briton ranges, the rounded L cover and the gently curved S cover.
- Metallic covers are available in 5 finishes with matching arms and bracket or track.
- Electromagnetic slide track hold-open option.

### Product features

<table>
<thead>
<tr>
<th>Feature</th>
<th>2130B</th>
<th>2130B.T</th>
<th>2130B.TE</th>
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<tbody>
<tr>
<td>CE marked</td>
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<td>✔</td>
<td>✔</td>
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<tr>
<td>Variable closing power EN size</td>
<td>2 - 6</td>
<td>2 - 4</td>
<td>3 - 4</td>
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<tr>
<td>Power adjustment by spring or template</td>
<td>spring</td>
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<td>spring</td>
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<td>Accufit template &amp; Accufit mounting plate</td>
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<td>✔</td>
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<tr>
<td>Maximum angle of opening</td>
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<td>110°</td>
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<td>Adjustable closing speed &amp; latch action</td>
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<tr>
<td>Adjustable backcheck</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Adjustable delayed action</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>Mechanical hold open facility (non fire doors)</td>
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<tr>
<td>Electromagnetic hold open facility</td>
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<td>✔</td>
<td></td>
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<tr>
<td>Projecting arm closer</td>
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<tr>
<td>Slide channel and arm</td>
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<td>✔</td>
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<tr>
<td>Cover variants available (C, L, S)</td>
<td>C/L/S</td>
<td>C/L/S</td>
<td>C/L/S</td>
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<td>Warranty period</td>
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<td>10yrs</td>
<td>10yrs/2yrs</td>
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<td>CE Classification</td>
<td>4 B 2-6 113</td>
<td>4 B 2-4 113</td>
<td>3 B 3-4 113</td>
</tr>
</tbody>
</table>

- Standard
- Available as an option/variant
Briton

Briton 1100 Series - a comprehensive range of medium duty overhead closers

The Briton 1100 Series is designed to provide a mid-range product with a choice of the most popular options, in a concise, cost-effective package. The Briton 1100 Series is a simple system which comprises 3 body sizes, each available as standard with a slide-in trimplate or with optional classic square or softline all-over covers.

The combinations of performance and cover options provides a highly comprehensive series of closers which can be suited across a wide range of functions and applications.

Note: All covered variants have a platform arm as standard. All trimplate variants have screw thread arms as standard.

Features & Benefits

- Cast aluminium body
- Precision needle roller bearings allied with rack and pinion mechanism provides efficient operation and high levels of durability.
- High quality silicon chrome alloy steel used for the coil spring.
- High quality hydraulic fluid with built-in temperature compensation.
- Screw thread armset manufactured from forged steel for additional strength and durability supplied for all trimplate variants (see above).
- Available with snap joint arm for quick and easy installation and future maintenance.
- All-over cover option in classic square or rounded softline variants to conceal all fixings and adjustment screws providing a neat appearance and reducing the risk of vandalism and tampering.
- Trimplate option is a simple and cost effective means of concealing fixing and adjustment screws.
- Adjustable power variants.
- Separate closing speed and latch action adjustment provides total accuracy of adjustment of the full closing cycle.
- Adjustable backcheck (1120B & 1130B) minimises the risk of damage to the door, its hardware and the surrounding structure.
- Optional hold-open armset allows the door to be held in the open position for convenience. (Not to be used on fire door applications).

The Briton 1100 Series is CE marked to EN 1154, fire tested to EN 1634 and Certifire Approved for use on timber doors to achieve a 2 hour fire rating and 4 hours on steel doors.
Briton

With enough performance and design options to suit virtually any application

The Briton 1100 Series provides a wide choice of trimplate, classic or softline cover available in a selection of sprayed and metallic finishes which will satisfy the large majority of applications. Because of the comprehensive nature of the design and performance options, closers can be selected to suit their location in the knowledge that they will remain visually consistent throughout the building.

Briton 1130B.TE Electromagnetic hold-open

An electromagnet in the slide track is designed to hold the door open during normal use and is connected to the building fire alarm system. On sounding the fire alarm, or in the event of power failure, the electromagnet is deactivated and releases the door closer mechanism to close the door in the normal controlled manner.

It is particularly suited for use in areas where a standard door closer could be inconvenient or would impede the flow of people in medium or high traffic applications such as a cinema foyer or hospital corridor. The use of electromagnetic hold-open door controls are recommended in applications which are designed to meet the levels of accessibility called for in Approved Document M Access to and use of Buildings.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.
- Manual override allows the door to be pulled closed at any time.
- On-board test switch simulates fire condition to check operation.
- Fully adjustable hold-open angle from 85° to 110°.
- 24v transformer/rectifier power supply unit available.

Briton 1100 Series - Medium duty

From left to right: Briton 1110.S, Briton 1130B.T.S, Briton 1110.C, Briton 1130B.T.C and below, Briton 1130B.TE & Briton 1130B.TE.S

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

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- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
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- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.

Features of the Briton 1130B.TE closer

- Designed to, and fully compliant with EN 1155.
- Satisfies the requirements of Approved Document M Access to and use of Buildings.
- Fail safe electronics guarantee door release in the event of a fire or power failure.
- Alarm activation
- Track mounted 24V DC solenoid with an effective and reliable holding force.
The Briton 996 Series is a range of closers with an integrated electro-magnetic hold open mechanism. Each unit can be set to either ‘hold-open’ or ‘swing-free’ operation, in either case the spring closing function of the closer can be temporarily disabled to allow free passage. When de-activated via a connection to the building fire alarm or smoke detection system, the electromagnet disengages and the door closer closes the door in the normal manner to maintain fire safety.

Features & Benefits
- Selectable for Hold-open or Swing-free operation
- Pressure die cast aluminium body giving rugged durability.
- Steel rack and pinion mechanism is heat treated for strength and durability.
- Coil springs manufactured in silicon chrome alloy steel for superior strength and reliability.
- Unit is supplied with armset and bracket for regular or transom mounting and is self-handed to reduce the number of stockholding units required. For parallel mounting please specify when ordering.
- Fabricated steel cover available in a range of architectural finishes which suit with the Briton 2000 and 2130 closers with Classic covers to complement a variety of door hardware ranges.
- ‘Catch plate’ can be set to operate in hold-open or swing-free operation during installation to suit individual doorset requirements within a building.
- Electromagnet is controlled by the building fire alarm/detector system and activates the ‘catch plate’ to ensure the door closes automatically in the event of a fire.
- Optional rear cable entry allows units to be installed with concealed cable using a separate concealed door loop to protect the closer against vandalism.
- Supplied with armoured power loop to run power safely from the door frame to the closer unit.
- Adjustable closing speed and latch action provides total control of the full closing cycle.

Typically used on fire rated doors where the hold-open or swing-free feature is required either in high traffic areas for convenience or in situations where it would be difficult to satisfy the maximum opening force requirements of Part M of The Building Regulations.

The Briton 996 Series is CE marked to EN 1154 and EN 1155 for electrically controlled closing devices, fire tested to EN 1634 and Certifire Approved for use on timber doors to achieve a 2 hour fire rating.

<table>
<thead>
<tr>
<th>Product features</th>
<th>Product references</th>
</tr>
</thead>
<tbody>
<tr>
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<td>9963/01 9963/66 9964/01 9964/66 9965/01 9965/66</td>
</tr>
<tr>
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<td>Maximum angle of opening (controlled closing)</td>
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</tr>
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<td>Adjustable closing speed &amp; latch action</td>
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<td>Regular and transom mounting</td>
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<td>Hold-open adjustment</td>
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<td>3 8 3 1 1 3 3 8 4 1 1 3 3 8 4 1 1 3 3 8 5 1 1 3 3 8 5 1 1 3</td>
</tr>
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</table>

Standard Available as an option/variant
Briton 2820 Series - a range of medium duty floor springs for single or double action

Briton 2820 Series - Floor Springs

The Briton 2820 Series floor springs are designed for high traffic single and double action doors. They are ideally suited to:

- Timber, metal and tempered glass doors
- Areas where a discreet, high quality aesthetic is required
- Areas where a surface closer may be subject to abuse
- Applications where floor depth is limited

Performance

Briton 2820 Series floor springs are CE marked to EN 1154 and fire tested to EN 1634 on timber doors to achieve a 1 hour fire rating.

Mounted within a low profile cement box, the Briton 2820 Series floor springs are suitable for single and double action doors with a maximum opening angle of 130° and with optional hold-open facility (for non-fire doors only).

Briton 2820 Series floor springs are fixed power units with adjustable closing speed and adjustable latch action. All units are compatible with a series of single and double action pivots and bottom straps.

Features & Benefits

- High grade cast iron floor spring body.
- Heat treated high alloy steel mechanism with ball bearing race for optimum efficiency.
- Corrosion resistant galvanised steel, zinc coated and powder coated steel cement box.
- Low profile 40mm deep cement box.
- Full adjustment of the mechanism for perfect door alignment.
- Stainless steel cover plate available in satin or polished finish.
- Hardened steel spindle with spindle cover plate.
- Easy access to floor spring adjustments for closing speed and latch action. Adjusters cannot be backed out of the closer body.
- Mechanical hold-open option for non fire doors

Product features

<table>
<thead>
<tr>
<th></th>
<th>2823.SS</th>
<th>2824.SS</th>
<th>2823.SS.HO.90</th>
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</tr>
<tr>
<td>Conforms to EN 1154</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Suitable for single action doors</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Suitable for double action doors</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Maximum angle of opening</td>
<td>130°</td>
<td>130°</td>
<td>130°</td>
<td>130°</td>
</tr>
<tr>
<td>Adjustable closing speed &amp; latch action</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Mechanical hold-open (non fire doors)</td>
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<td>✔</td>
<td>90°</td>
<td>105°</td>
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<td>Dimensions cement box</td>
<td>307 x 108 x 40mm</td>
<td>cover plate 325 x 130mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cover plate in satin stainless steel</td>
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<td>✔</td>
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<td>Cover plate in polished stainless steel</td>
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<td>10 yrs</td>
<td>10 yrs</td>
<td>10 yrs</td>
</tr>
</tbody>
</table>

CE Classification

483113 484113

Standard Available as an option/variant
Briton 2500 Series - Low energy operator

Power assisted opening for convenience or for less able users

The Low Energy swing operator is a surface mounted electromechanical unit which is designed specifically to provide a means of automating new or existing single doors. The flexible microprocessor control allows activation by motion sensors, push button or by manual activation. In manual activation mode, the operator will provide power assisted opening of the door and spring power closing like a conventional door closer.

With an array of built-in safety features, the Low Energy operator is an ideal means of providing easy access for low traffic entrance doors, internal doors and disabled WC facilities.

Low Energy Operator Features and Options

The standard Low Energy operator gives precise door control in all conditions, monitoring the door position and allowing simple adjustment of the door operating parameters such as the opening and closing speeds.

In addition, provision is made for extra controls including:

- Automatic operation mode (selectable option) allows activation by either motion sensor, manual push pad/plate or via an integrated access control device
- Push & Go (selectable option) allows activation by gently pushing or pulling the door
- Manual operation allows the door to be easily operated as a standard manual door whilst still giving smooth action over the door cycle
- Power Boost (selectable option) in the final closing phase ensures the door reaches the fully closed position
- Safety stop halts the door when an object or person is encountered
- Delayed action holding is adjustable 0 - 30 sec.
- Additional safety sensors can be door mounted
- Emergency egress allows manual door opening
- Available in satin anodised aluminium finish and a range of powder coated RAL colours

Please note: Briton 2500 Series operators should only be fitted by a qualified installer or electrical engineer.

Typical applications

The Low Energy operator provides a highly economic solution to the obligation placed on service providers to comply with legislation concerning access for disabled users as recommended in Approved Document M of Building Regulations. This totally self contained unit can be applied to existing hinged or pivoted timber, metal or glazed doors without altering the doors or frames. It may also be combined with electronic access control which will simultaneously unlock and activate the opening of the door.

The addition of other safety features such as the Allegion Fingersafe (2550.FG) and the ability to monitor sensors helps to ensure compliance with EN 16005:2012 at the time of installation.

* Minimum clear opening width (Building Regulations Part M) - 800mm for new constructions; 750mm for existing buildings.
Briton 2500 Series - Low energy operator

Briton

Accessories
A selection of accessories is available for use with the Briton operator including rubber finger protection and activation buttons.
For additional accessories please contact your Allegion Specification Consultant for further information or guidance on the selection of accessories.

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2550.AP</td>
<td>Arm pack push - regular</td>
</tr>
<tr>
<td>2550.T.AP</td>
<td>Arm pack pull - slide channel</td>
</tr>
<tr>
<td>2550.FG</td>
<td>Rubber Finger Safe</td>
</tr>
<tr>
<td>2550.PPL.PTO</td>
<td>Push pad - large with engraving “Push to Open” and surface mounting box</td>
</tr>
<tr>
<td>2550.PPS.PTO</td>
<td>Push pad - narrow with engraving “Push to Open” and surface mounting box</td>
</tr>
</tbody>
</table>

In commercial and public buildings, the safety and security of the people who visit them and work in them are paramount considerations. From their earliest patented designs in the US and UK dating back to the start of the last century, Allegion has been pioneering the development of the most reliable and durable panic exit solutions available anywhere in the world.

Birmingham Central Library - photography by Tony Hisgett
Panic or emergency?

From 1st January 2010 it became mandatory for all exit devices to comply with the latest revisions of EN 1125 or EN 179 and CE marking.

All Briton 560 - 570 and 376 Series exit devices have been tested and certified to prove compliance with the latest standards EN 1125 & EN 179 which govern the application of panic and emergency exit hardware, but which standard applies to which application?

**PANIC APPLICATION - EN 1125:2008**

A 'panic' application is where the exit door is used by members of the public and must provide “safe and effective escape through the doorway with minimum effort and without prior knowledge of operation”.

Typical applications include:
- Shops
- Schools
- Hospitals
- Theatres and Cinemas

According to EN1125 the length of the panic exit device should be as near as possible the effective width of the opening and not less than 60% of the width of the opening.

**Emergency Applications - Conforming to EN 179:2008**

An 'emergency' application is where the exit door is in a low occupancy environment and will only be used by trained personnel, such as in a place of work never accessed by the public or people unfamiliar with the escape drill.

Typical applications include:
- Offices
- Private Flats & Apartments
- Store Rooms & Boiler Rooms

Products used in emergency applications require only a single point of operation e.g. pushpads or levers.

Testing and CE Marking

Rigorous testing is continually being carried out on the Briton range of exit hardware providing peace of mind for specifiers, distributors, installers and users.

**Low operating force**

Repeatedly tested to operate at 50% lower than the standard requirement, ensuring that the door can be operated with minimum force, for example by small children, the elderly and people with special needs.

Two tests are undertaken. The first is to operate the door with a maximum force of 80 Newtons.

The second test simulates a panic situation whereby the door is put under 1000 Newton pressure to simulate a group of people pushing against the door.

The operating force on the device with this weight should not exceed 220 Newtons.

**Abusing the push bar**

The push bar is attacked with a force equivalent to a 16 stone man (1000 Newtons) pulling/pushing it in all directions and standing on it, after which the bar must still operate.

**Cycle testing**

All Briton products exceed the highest EN requirement of 200,000 cycles, ensuring durability for everyday use. Von Duprin panic exit hardware is tested beyond 500,000 cycles.

**The finger trap test**

To reduce the risk of trapping fingers and/or the blocking of the panic device, any gap shall not trap a test rod of 10mm dia. at any position of the bar travel during the operation of the panic device.

**Abusing the bolt**

Testing the bolt strength involves the equivalent of the combined strength of 4 people trying to pull the bolt away from the door.

An attempted break-in is simulated to test the security of the bolt, force is applied to the anti-thrust device as if the bolt were being ‘jemmied’ out of its socket.

**Corrosion resistance**

A test which measures how suitable the exit device is for varying environmental conditions. All Briton 376 Series hardware has been tested to EN 1670 Building Corrosion Requirements and has achieved at least grade 3 (high resistance). This ensures the product will function correctly in wet, polluted and exterior environments. Note, for panic and emergency exit hardware the corrosion resistance grade is based on performance not aesthetic finish.
Independent tested in excess of 5 million cycles

In addition to CE marking for applications in Europe, Von Duprin exit devices are also tested to comply with ANSI standard A156.3 developed and maintained by BHMA in North America.

Testing Criteria
Listed below are only some of the tests and criteria covered in this standard. For simplification, all tests and details of tests are not elaborated on. For exact and complete details of tests, etc. refer to the complete ANSI/BHMA standard.

1. Cycle test
Door shall be opened by pushing on the actuating bar. The door shall then close and latch.
Grade 1: 500,000 cycles
Grade 2: 250,000 cycles
Grade 3: 100,000 cycles

2. Exit test (unloaded door)
With the door closed and latched and with no load on the door which might cause it to open, a horizontal force on the actuating bar, not to exceed 15 pounds (6.8kg) shall release the latching mechanism. (All grades).

3. Exit test (loaded door)
With the door closed and latched, a force of 250 pounds shall be applied in the area of the center case of the exit device in the direction of door opening. Applying a force of not more than 50 pounds (22.7kg) must release the latch bolt allowing the door to open. (All grades).

4. Force to latch door
With the door closer disconnected, a force applied in the area of the center case of not more than 4.5 pounds (2.04kg) shall cause the door to latch.

Salt spray corrosion tests being carried out on Von Duprin exit devices.

A guide to specifying panic and emergency exit hardware

Which system to choose
Having first determined whether the application requires a panic or emergency exit solution there are number of additional considerations which will determine the most appropriate product. These could include:
- Aesthetic considerations - push bar or touch bar
- Designed to satisfy ANSI or EN standards
- Single point or multi-point latching for security
- Frequency of use may require a heavy duty solution
- Additional features such as hold-back or alarm connection
- Access from outside required

Single or multi-point security
Both panic and emergency exit solutions are available as rim devices providing a single central latch point or with latching points at the top and bottom of the door. The modular nature of the Briton 560 - 570 Series allows you to build a solution which is tailored specifically to the needs of your door providing up to 5 latching points on a single door.

<table>
<thead>
<tr>
<th>Series</th>
<th>Von Duprin 98/99 Series</th>
<th>Briton 570 Series</th>
<th>Briton 560 Series</th>
<th>Briton 581 Series</th>
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<tbody>
<tr>
<td>Description</td>
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<td>Modular panic exit hardware system</td>
<td>Modular panic exit hardware system</td>
<td>Modular emergency exit hardware system</td>
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<td>✓</td>
<td>✓</td>
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<td>Push bar operation</td>
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<td>Push pad operation</td>
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<tr>
<td>Rim latch device</td>
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<td>Vertical bolt device</td>
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<td>Electric latch retraction</td>
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<td></td>
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<tr>
<td>No. of latching points</td>
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<td>1 to 5</td>
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<td>2hr timber/2hr steel</td>
<td>2hr timber/2hr steel</td>
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<td>Suitable for single doors</td>
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<td></td>
<td></td>
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<tr>
<td>Suitable for double doors</td>
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<td>Typical applications</td>
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<td>Medium to high end commercial applications</td>
<td>Medium to high end commercial applications</td>
<td>Medium to high end commercial applications</td>
</tr>
</tbody>
</table>

In addition to CE marking for applications in Europe, Von Duprin exit devices are also tested to comply with ANSI standard A156.3 developed and maintained by BHMA in North America.
Briton panic & emergency exit hardware

Modular CE marked exit hardware from single to multi-point locking

Briton 560 and 570 panic exit devices have been designed to offer modular solutions for mid to high end specification, providing a combination of style, safety and optimum security. The basis for each solution is a pushbar or touch bar device which can be used independently to provide single point locking or with additional optional modular locking elements. The use of additional modular locking units and other accessories offers increased flexibility and adaptability to suit individual requirements.

Briton 561 Push Pad
For applications which are not used by members of the public (and therefore classed as emergency exit applications) there is a push pad operator which has the following features:

- Complies with EN 179 suitable for emergency exit applications only.
- Suitable for use on single doors or in combination on double doors.
- Single point latching.
- Suitable for use with additional pullman latch kits.

Briton 560-570 Series - The modular system

Pushbar or touch bar
At the heart of the system is the activation device which is available in a ‘push bar’ design or the lower projection ‘touch bar’. Each device can be used on its own to provide single point latching or with the addition of universal pullman latches for multi-point latching.

Pullman latches
Pullman latches provide a smooth and quiet closing action, ideal for interconnecting doors in highly populated areas. Available as top/bottom or side acting latches where installation of the striker to the floor is not practical.
In all cases the pullman latch is connected to the Pushbar or Touch bar activation device using a unique adjustable stainless steel cable which is fully concealed beneath extruded cover channels.

Additional side pullman latches (right) can be added to the system. These can be used at any position above or below the activation device to produce 4 or even 5 point latching on a single door.

Security
Designed to provide immediate escape at any time these devices also provide a high level of security from intruders from the outside. The anti-thrust device in the latch and pullmans prevents unauthorised retraction of the latches and the modular design allows various levels of multi-point locking.
Briton 560-570 Series - Features and benefits

Briton

Installed in approximately seven minutes, half the time of the previous system.

The Briton 560 and 570 panic exit devices offer:

- Robust construction with improved durability suitable for all heavy traffic applications.
- Technologically advanced design with proven performance and reliability.
- Grip function on 570 touch bar design allows the door to be pulled closed.
- Shaped cross bar end piece to allow easier access to door lock.
- Suitable for doors with a minimum clear opening width down to 500mm. This can be reduced to 350mm where side latches are not required.
- Unique assembly which reduces installation time by as much as 50% (see opposite).
- Touch bar, push bar and shoots can be cut on-site.

Installation benefits

The Briton 500 Series has a number of unique features to make installation much easier and quicker:

- Easy-to-use Accufit templates and backplates for the individual panic devices and the pullman latches
- Patented Fast-Fix cable system replaces the conventional vertical rods to connect the operating unit and the pullman latches
- Fine adjustments of the cable system are possible in-situ for maximum accuracy during installation
- Minimal measuring is required to prepare the units to suit the door height
- Quick and simple snap on covers for the operating mechanisms and pullman latches
- Easy to follow pictorial installation instructions

Briton 561 push bar device in SE finish (silver with black end cases).

Briton 571 touch bar device in SS finish (satin stainless steel with black chassis and end cases).

See for yourself how easy it is to install. Scan the link or go to:
http://tinyurl.com/83yech9
Briton 560-570 Series - Options

Typical applications

* The 571 device is available in 2 lengths (specify 571.1 for 1200mm wide and 571.2 for 840mm wide).

<table>
<thead>
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<th>Device Type</th>
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<td>✔</td>
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</tr>
<tr>
<td>Push bar operator</td>
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<td>✔</td>
<td>✔</td>
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<td>Push pad operator</td>
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<tr>
<td>Touchbar with mortice nightlatch</td>
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<td>✔</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tr>
</tbody>
</table>

Features

- Fast-Fix cable system
- Vertical cable cover cut on-site
- Self handed
- Alarmed
- Dogged hold-open facility
- 5 year guarantee
- Powder coated silver (SE, SES)
- Plated finishes (SS, PS, PB)

Briton 560-570 Series - Dimensions

Key:
L = 1200mm or 840mm
The 98 and 99 Series panic exit hardware designed and manufactured by Von Duprin is a thoroughly comprehensive range of solutions which can be applied to any single or double door requiring immediate escape. The robust construction not only satisfies the requirements of EN 1125 for CE marking but has passed the stringent testing necessary for approval to ANSI A156.3 and UL listing.

The solutions available range from purely mechanical touch bar exit devices to electronic latch retraction for more sophisticated control applications. At the heart of each solution is a touch bar actuating device which is offered as either a rim latch device, with surface mounted vertical bolts or with 3 point locking using pulman latches.

The Von Duprin 98 and 99 Series panic exit hardware has the following features and options:

- CE marked and fully compliant with EN 1125 for use on Panic Exit doors.
- Single, double or three point latching.
- Single point rim latching or with vertical bolts and pullman latches.
- Shoots and touch bar can be cut on-site to suit door widths/heights.
- Adjustable shoots.
- Slimline extruded aluminium vertical rods
- Self handed.
- Options with electric latch retraction which can be interfaced with additional features such as delayed egress and alarm functions.
- Hold-open (dogged) options available.
- Fire tested on timber doors to EN 1634 and suitable for use on fire doors up to 2 hours.
- Tested in conjunction with external trim to provide access from outside.
Von Duprin 98 & 99 Series

VON DUPRIN

Typical applications of single and double door combinations

Single doors offering single, double or triple point latching

Double door combinations for rebated or non-rebated double doors

Certification - ANSI

<table>
<thead>
<tr>
<th>Product references</th>
<th>98 Series - Ribbed casing</th>
<th>99 Series - Smooth casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>98F</td>
<td>EL98</td>
</tr>
<tr>
<td>99</td>
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<tr>
<td>9857</td>
<td>9957F</td>
<td>9957F</td>
</tr>
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</table>

Certification - EN

<table>
<thead>
<tr>
<th>Product references</th>
<th>98 Series - Ribbed casing</th>
<th>99 Series - Smooth casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>98F</td>
<td>EL98</td>
</tr>
<tr>
<td>99</td>
<td>99F</td>
<td>EL99</td>
</tr>
<tr>
<td>9827</td>
<td>9827F</td>
<td>9857</td>
</tr>
<tr>
<td>9927</td>
<td>9927F</td>
<td>9957</td>
</tr>
<tr>
<td>9857</td>
<td>9957F</td>
<td>9957F</td>
</tr>
</tbody>
</table>

CE marked

Conforms to EN 1125

Fire tested to EN 1634-1 for timber fire doors

Fire tested to EN 1634

Guarantee period

<table>
<thead>
<tr>
<th>Guarantee period</th>
<th>3yrs</th>
<th>3yrs</th>
<th>1yr</th>
<th>5yrs</th>
<th>5yrs</th>
<th>5yrs</th>
<th>5yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 Series - Ribbed casing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>99 Series - Smooth casing</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Product features

<table>
<thead>
<tr>
<th>Product references</th>
<th>98 Series - Ribbed casing</th>
<th>99 Series - Smooth casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>98F</td>
<td>EL98</td>
</tr>
<tr>
<td>99</td>
<td>99F</td>
<td>EL99</td>
</tr>
<tr>
<td>9827</td>
<td>9827F</td>
<td>9857</td>
</tr>
<tr>
<td>9927</td>
<td>9927F</td>
<td>9957</td>
</tr>
<tr>
<td>9857</td>
<td>9957F</td>
<td>9957F</td>
</tr>
</tbody>
</table>

Single point rim latch

Vertical bolts

No. of latching points

Adjustable shoots

Electric latch retraction

Dogged hold-open

Fire tested to EN 1634

<table>
<thead>
<tr>
<th>Guarantee period</th>
<th>3yrs</th>
<th>3yrs</th>
<th>1yr</th>
<th>5yrs</th>
<th>5yrs</th>
<th>5yrs</th>
<th>5yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 Series - Ribbed casing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99 Series - Smooth casing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Standard
- Available as an option/variant
Outside trim

The operating characteristics of the Von Duprin 98 and 99 Series panic exit hardware can be adapted to suit individual applications by the use of an outside access device, specifically designed to provide authorised access from outside. These units are tested in association with the panic exit hardware as shown in the table below.

- Tested in conjunction with exit devices to provide access from outside by key.
- A range of knob, lever or dummy trim to be selected according to the access required from outside.
- Suitable for single or double doors.
- Units bolt through from the exit device for a strong and secure assembly.

<table>
<thead>
<tr>
<th>Product features</th>
<th>Product references</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 Series - Ribbed casing</td>
<td>98 98F EL98 9827 9827F 9857 9857F</td>
</tr>
<tr>
<td>99 Series - Smooth casing</td>
<td>99 99F EL99 9927 9927F 9957 9957F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trim option</th>
<th>990DT</th>
<th>990NL</th>
<th>991K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trim option 990DT</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Trim option 990NL</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Trim option 991K</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Mechanical locking remains the most common means of providing flexible and cost-effective security for all types of building from residential applications to offices, factories, schools and colleges. Primarily, they offer a range of security from simple privacy through to high security applications offering sophisticated masterkeyed access control.
Cylinder lockcases - Introduction

Flexibility and simplicity offered by mortice cylinder locks

For most doors, particularly internal doors, a Briton mechanical lock case represents the most effective and direct means of providing privacy and security for commercial applications. Briton lock cases have Grade 3 category of use and can be used on internal and external doors.

- Modular dimensions across a range of functions allows for factory preparation of doors and frames
- Allows simple replacement of the cylinder if keys are lost or stolen to quickly reinstate security
- Cylinders available in various functions to fine tune the operating characteristics of the lock
- Cylinders available allow sophisticated multi-level masterkeying for access control
- Modular dimensions allow for lock interchangeability to upgrade security

Escape functions
Where locks are incorporated in doors which are on an escape route in an office suite for example, lock cases should be certified to EN 179 for emergency exit use. Such locks can be operated by a single action on the lever in the direction of the escape route which will withdraw the latchbolt and the deadbolt simultaneously to give immediate escape.

CE marked to EN 12209

Physical characteristics of type, operation and performance of lock cases is tested/assessed in accordance with EN 12209. This produces an 11 digit classification code which describes its type and grading according to various test criteria. The table below gives an outline of the classification and the performance of a typical example.

<table>
<thead>
<tr>
<th>Digit</th>
<th>Category of use</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Category of use</td>
<td>Grade 3 - High frequency of use by public or others with little incentive to take care and with a high chance of misuse - eg. public doors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Durability</th>
<th>Grade X - 200,000 test cycles with 120N side load on latch bolt</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Door mass and closing force</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Grade X - 200kg door mass, 15N maximum closing force</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Suitability for fire/smoke doors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grade 1 - Suitable for use on fire/smoke resisting assemblies subject to satisfactory fire testing or assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Grade 0 - No safety requirement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Corrosion resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Grade 0 - Very high corrosion resistance 240 hours salt spray at -20°C to +80°C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Security and drill resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Grade 4 - High security and no drill resistance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Field of door application</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Category A - Mortice type with unrestricted application</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Type of key operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Type A - Cylinder lock or latch, manual locking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Type of spindle operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Type 2 - Lock or latch for unsprung lever handle operation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digit</th>
<th>Key identification requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Category 0 - No requirement for key identification</td>
</tr>
</tbody>
</table>
Briton

High performance euro profile lockcase series suitable for all high end specifications

Features & Benefits

- Powder coated steel case has exceptional corrosion resistance.
- Modular design allowing simplified door preparation and lock interchangeability.
- Grade 316 stainless steel single piece forend. Optional square ended forend is also available.
- Quick reversible latch allows quick and trouble free on-site handing without the need to dismantle the lockcase.
- Profiled latch and forend provides very positive location and a smooth, quiet operation.
- Chrome plated steel latch for corrosion resistance.
- Cast follower with phosphor bronze bushes reduces wear of follower during extended use.
- 8mm follower is designed to grip the spindle to eliminate unwanted tolerance between components.
- 30˚ follower action with springing suitable for high frequency applications.
- Positive follower angle (1°) reduces the effect of wear which can lead to lever droop.
- Drill resistant heavy duty hardened deadbolt with 22mm throw on a single turn of the cylinder.
- Chrome plated steel bolt for corrosion resistance.
- Bolt through fixing holes to DIN 18251 making the lock compatible with most European hardware ranges.
- Sleeved fixing holes assist in bolt location, provide added strength to the lockcase and help prevent mechanical failure due to ingress of foreign objects.

Conforms to European Standards EN 12209 and EN 179 and carries the CE mark. Tested to EN 1634.
Briton 5600 - Euro profile cylinder lockcase range

Dimensionally co-ordinated lockcases

Features & Benefits

- Zinc plated steel case has exceptional corrosion resistance.
- Modular design allowing simplified door preparation and lock interchangeability with Briton 5500 Series.
- Grade 304 stainless steel single piece forend available radused or square ended with matching strike.
- Quick reversible latch allows quick and trouble free on-site handing without the need to dismantle the lockcase.
- Profiled latch and forend provides very positive location and a smooth, quiet operation.
- Stainless steel latch for corrosion resistance.
- Sintered steel 8mm follower.
- 30˚ follower action with springing suitable for high frequency applications.
- Positive follower angle (1˚) reduces the effect of wear which can lead to lever droop.
- Stainless steel deadbolt with 20mm throw on a single turn of the cylinder.
- Bolt through fixing holes to DIN 18251 making the lock compatible with most European hardware ranges.
- Nightlatch has anti-thrust latch to prevent forced latch retraction when the door is closed.
- Escape mechanism of 5660 escape sashlock can be easily reversed on site to suit all handing options.

Conforms to European Standards EN 12209 and EN 179 and carries the CE mark.

<table>
<thead>
<tr>
<th>Product ref.</th>
<th>Function/description</th>
<th>Centres</th>
<th>CE Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>5650</td>
<td>Nightlatch function operated by a half set of levers on the inside of the door to retract the latchbolt. Single cylinder on the outside operates the latchbolt with a single key turn. Latchbolt is automatically locked by the anti-thrust latch.</td>
<td>72mm</td>
<td>3X810F38820</td>
</tr>
<tr>
<td>5660</td>
<td>Escape lock with split follower - Latchbolt withdrawn by lever handle from both sides. Split follower function enables both the deadbolt and latchbolt to be withdrawn simultaneously by inside lever handle. Easily reversible escape mechanism.</td>
<td>72mm</td>
<td>3X810F388A20 (EN 12209)</td>
</tr>
</tbody>
</table>

Radiused and square forends are available with matching strikes. Add suffix .R or .S to product code: e.g 5650.R for radiused forend and strike, 5650.S for square forend and strike.

Conforms to European Standards EN 12209 and EN 179 and carries the CE mark.
A guide to selecting the right cylinder in the right place

EN 1303:2005
The performance of cylinders is governed by the European standard EN 1303 which tests and assesses cylinders most importantly on:
• Durability.
• Key Related Security.
• Attack Resistance.
• Fire resistance to EN 1634-1.

Selecting the right cylinder system
In selecting the most appropriate cylinder system for any given application, a few simple factors should be considered:
• The need for physical security from forced entry.
• The balance between the convenience of getting duplicate keys cut and the security of strict key control whereby keys can only be obtained from the manufacturer under a letter of authority.
• The size of the system and the need for complex masterkeying capabilities.

Addressing physical security
An intruder seeking to break open a door will in most cases choose to “attack” the lock cylinder using the tools of the trade: drills, pliers, lock picks and other lock-forcing tools.

1 - Push resistance
A projecting cam on the cylinder can prevent it from being forced out of the lockcase by a hammer blow.

2 - Drill resistance
The incorporation of steel pins within the cylinder are designed to resist or delay attacks from drilling.

3 - Pick resistance
Special pin configurations can resist the manipulation of the pins in an attempt to simulate the key.

4 - Snap resistance
The inclusion of hardened steel laminates within the body of the cylinder can prevent violent twisting and snapping of the cylinder.

5 - Bump resistance
Bumping of cylinders is becoming more of an issue throughout Europe, particularly as there is no sign of forcible entry for homeowners to claim on insurance.

Active ‘intelligent’ security
Who hasn’t ever lost their house keys, or temporarily left them with someone who could have made a copy?
Active security is ‘intelligent’ precisely because it anticipates this type of problem, with solutions that enhance the security of the cylinder and prevent unauthorised duplication of the key.

Patent protection
Since copyright protection on keys was abolished in 1999, it is now possible for anybody to produce and sell most types of keys. The only systems that can truly protect against illegal key blank duplications are patented key systems. Manufacturers are able to take legal action against any authorized third parties who distribute copies of patented keys without permission.

Anti-barricade function
In some circumstances, such as secure institutions, care homes and psychiatric facilities it is desirable to prevent the inside thumbturn being used to forcibly hold the deadbolt in the locked position. A clutch mechanism within the cylinder isolates the thumbturn from the keyway so that in an emergency the key will override the thumbturn if it is being held.

Classroom function
If a teacher needs to leave a room full of pupils for a short while, they can lock the door from the outside to prevent unauthorised personnel from entering whilst being reassured the door can always be opened from the inside, even when locked. The cylinder can never be locked by the thumbturn from the inside.

Construction Keying
During the construction process, keys can easily become lost or stolen which can lead to loss of security. If Construction Keying is specified the building contractor will be issued with specific contractors keys for each of the cylinders. At the point of ‘hand-over’ the building owner/occupier inserts the proper ‘system’ keys into each cylinder and in the process renders the contractors keys inoperative.

Masterkeying
Masterkeying is the organisation of a keyed locking system where a hierarchy of access is produced. As the level of authority rises, so the ability to access cylinders in the system increases until access to all the cylinders in a system is available to a single Grand Masterkey.

Security Card
Offers a high level of service personalisation, giving further protection to the end user. The CISA authorised duplication system is the perfect solution for ensuring that keys can only be duplicated with the owner’s consent on production of the security card.
Briton 75-29 Series with patent protection to 2029

Features and benefits
- Key profile with patented technology which prevents unauthorised key duplication to 2029.
- Key blanks carry a lifetime warranty.
- ‘Through-cut’ technology utilises a unique process to produce the patented undercut design.
- 6 pin tumbler system with additional ‘check pin’ for extra security.
- Raised plug with unique slotted face for improved aesthetics.
- Plug finish matches the cylinder body which is available in satin nickel, polished chrome and polished brass finishes to match most quality hardware ranges.
- Full range of euro profile and oval profile cylinders in symmetrical and offset lengths.
- Thumbturn design provides an easy grip and is compatible with most hardware designs.
- Backwards compatible with Briton 7500 Series.

Patented system
In addition to the 6 conventional cylinder pins, the Briton 75-29 Series incorporates a unique ‘check pin’ with a small hook on its tip. The tip of the pin corresponds to the special undercut on the key profile. Only with the correct key inserted is the ‘check pin’ lifted clear and the cylinder is free to rotate.

CE Classification
Briton 75-29 Series cylinders are fully tested to EN 1303:2005 and have the following classification.

<table>
<thead>
<tr>
<th>EN1303:2005</th>
<th>Category of use</th>
<th>Durability</th>
<th>Door mass</th>
<th>Fire resistance</th>
<th>Safety</th>
<th>Corrosion resistance</th>
<th>Key related security</th>
<th>Attack resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briton 75-29</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>C</td>
<td>S</td>
<td>5</td>
<td>2*</td>
</tr>
</tbody>
</table>

* when used with security escutcheon see page 82.

CISA multi-level solutions integrated into a single system

Features and benefits
- Patented system (Astral Tekno) to 2026.
- Kitemarked TS007 - 1 Star (Astral S).
- 10 pin key bitting system.
- BKP bump resistant device (Astral S / Tekno).
- Snap resistant laminated core (Astral S).
- DIN standard sintered steel cam.
- Multi-function options including classroom and construction keying functions.
- Security code card required for key duplication.
- Full range of euro profile cylinders in symmetrical and offset cylinder lengths.
- Thumbturn design provides an easy grip and is compatible with most hardware designs.

CISA offers a wide range of cylinders from basic security with good masterkeying capability, which are ideal for residential homes and commercial offices through to high security cylinders with a large capacity masterkey system, which are prominent on high profile buildings such as banks, high security laboratories and airports.

The Astral Series comprises 3 individual cylinder ranges which are fully compatible with each other and can be incorporated into the same masterkey system if required.

CE Classification
Briton 75-29 Series cylinders are fully tested to EN 1303:2005 and have the following classification.

<table>
<thead>
<tr>
<th>EN1303:2005</th>
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<th>Safety</th>
<th>Corrosion resistance</th>
<th>Key related security</th>
<th>Attack resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astral Tekno</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>C</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Astral S</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>C</td>
<td>6</td>
<td>2*</td>
</tr>
<tr>
<td>Astral</td>
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<td>6</td>
<td>0</td>
<td>0</td>
<td>C</td>
<td>6</td>
<td>0</td>
<td></td>
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</table>

* drilling and torque resistance
### Features and options

<table>
<thead>
<tr>
<th></th>
<th>Briton 75-29</th>
<th>Astral Tekno</th>
<th>Astral S</th>
<th>Astral</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of pins</td>
<td>6 + check pin</td>
<td>2 row 10 pin</td>
<td>10 pin</td>
<td>10 pin</td>
</tr>
<tr>
<td>Push resistant projecting cam</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Anti-pick pins</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Anti-drill</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Bump resistant</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Snap resistant</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Patent protection</td>
<td>up to 2029</td>
<td>up to 2026</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Protected key duplication</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Code card required for key duplication</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>No. of differs</td>
<td>30,000</td>
<td>1.6 million</td>
<td>1.6 million</td>
<td>1.6 million</td>
</tr>
<tr>
<td>Masterkeying capacity</td>
<td>TBA*</td>
<td>up to 63,000 keys</td>
<td>up to 63,000 keys</td>
<td>up to 63,000 keys</td>
</tr>
<tr>
<td>Kitemarked TS007/2012</td>
<td>16000C52</td>
<td>16010C60</td>
<td>16010C62</td>
<td>16010C60</td>
</tr>
<tr>
<td>Anti-barricade function</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Classroom function</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Construction keying function</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

* Dependant on the complexity of the masterkey system
Briton 4800 Series - Hinges

High performance stainless steel hinges for commercial applications

The first step in specifying hardware for any door is the method of hanging. Unless the door is to be fitted with a floor spring the door will be fitted with hinges, normally with 3 hinges per leaf (or more for larger or heavier doors, fitted in a pattern in accordance with BS EN 1935). The use of high quality hinges which are accurately fitted can have a significant bearing on the operating characteristics of the door which in turn will affect the efficiency of other hardware items, notably door closers and mortice locks.

Features & Benefits

- Five knuckle ball bearing hinges.
- Suitable for timber and metal doors up to 120kgs.
- Template drilled for consistency and accuracy.
- Available in Grade 316 or Grade 304 stainless steel and in satin or polished finish.
- Also available with machine screws for use with metal doorsets.
- Options for security dog bolt.

<table>
<thead>
<tr>
<th>Product ref.</th>
<th>Size</th>
<th>Dog bolt</th>
<th>Material Grade</th>
<th>Finish</th>
<th>CE Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4801</td>
<td>102 x 76 x 3</td>
<td>304</td>
<td>.SS / .PS</td>
<td>476114013</td>
<td></td>
</tr>
<tr>
<td>4802</td>
<td>102 x 89 x 3</td>
<td>304</td>
<td>.SS / .PS</td>
<td>476114013</td>
<td></td>
</tr>
<tr>
<td>4803</td>
<td>102 x 102 x 3</td>
<td>304</td>
<td>.SS / .PS</td>
<td>476114013</td>
<td></td>
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<td>4801.316</td>
<td>102 x 76 x 3</td>
<td>316</td>
<td>.SS / .PS</td>
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</tr>
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<td>4802.316</td>
<td>102 x 89 x 3</td>
<td>316</td>
<td>.SS / .PS</td>
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</tr>
<tr>
<td>4803.316</td>
<td>102 x 102 x 3</td>
<td>316</td>
<td>.SS / .PS</td>
<td>476114013</td>
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4811 dog bolt variant
Qualifying our commitment to achieving the highest levels of performance

**BS EN ISO 9001 Certification**
Allegion operates under an ISO 9001 quality management system which continually monitors and manages quality across all of its operations. As the world’s most widely recognized quality management standard, it outlines ways to achieve, as well as benchmark, consistent performance and service.

**BS EN ISO 18001 Certification**
Allegion is committed to operating and continually improving its health & safety management system so as to comply with the requirements of OHSAS 18001:1999

**BS EN ISO 14001 Certification**
The overall environmental policy of the company is to ensure that we comply with the Allegion Global Environmental, Safety and Health Policy, any environmental regulations applying to our activities, and to continually improve our environmental performance.

**UKAS and ANAB**
Allegion customers can be assured that our ISO 9001, ISO 14001 and ISO 18001 certifications are all assessed to national and international standards, using BSI who are accredited by UKAS and ANAB.

**CE marking**
Allegion is committed to CE marking of products wherever possible. The CE mark shows that Allegion has checked these products meet EU safety, health or environmental requirements and is an indicator of a product’s compliance with EU legislation.

**Certifire approval**
CERTIFIRE is an independent third party certification scheme that assures performance, quality, reliability and traceability of fire protection products. Recognised by regulatory authorities worldwide, it is an internationally respected mark of fire safety and one of the most authoritative in the industry. Many Allegion products have Certifire approval.

**BS 8300**
Wherever appropriate, Allegion provides products and solutions to meet the recommendations of BS 8300 (meeting the needs of disabled people - code of practice) to facilitate access for all users.

**Door & Hardware Federation**
Allegion is member of the DHF which provides valuable information on the latest legislation and technical specifications which are developed in association with BSI.

**Guild of Architectural Ironmongers**
As a full member of the GAI, Allegion is represented on the trade body for architectural ironmongers and manufacturers. It also benefits from the internationally recognised education programme for technical consultants working in the industry.

**RIBA**
Allegion is a provider of CPD programmes on various aspects of architectural ironmongery and door controls.

**NBS Plus**
Allegion is a long term subscriber to NBS Plus and is able to offer the recognised national standard specification system for the UK construction industry.

**Kitemark**
The Kitemark - instantly recognised worldwide as a symbol of trust, integrity and quality is a registered certification mark owned and awarded by BSI. Allegion products which have been awarded the Kitemark are identified with this icon.

**Guarantees**
All Allegion products are provided with extended guarantee periods of up to 10 years.