

Briton ■  CISA ■ LCN ■ VON DUPRIN

inspec

REDEFINING DOOR HARDWARE SPECIFICATION

inspec solutions, providing safe and efficient environments

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 everytime. Our Accufit installation system for example has been proven to significantly reduce these issues.

Type of building	Expected frequency	
High frequency	Daily	Yearly
Large dept.store entrance	5,000	1,825,000
Large office building entrance	4,000	1,460,000
Hospital corridor & surgical doors	3,000	1,095,000
School entrance	1,250	456,000
Office stairwell	500	182,000
Medium frequency		
Hospital consulting rooms	100	36,500
School corridors	100	36,500
Office building corridors	80	29,200
Storage room	50	18,250
Low frequency		
Residential entrance	30	10,950
Residential interior	20	7,300



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.

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.

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.



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 its 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





Photography by Craig Auckland

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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

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.

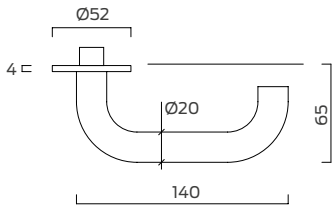


- To support the performance characteristics, Briton Specification hardware has the following features:
- Back to back fixing bolts and threaded bushes on lever furniture provide a strong through fixing.
 - Spindle is fixed to the inside and the outside lever handle by "break thru" grub screws providing 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.
 - Comrehensively 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*



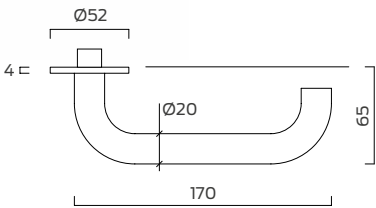
* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

Briton

Classically contemporary style



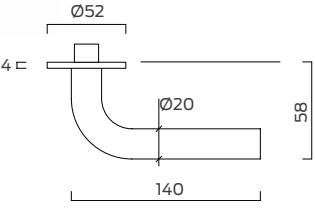
Ref:	4701.20.175
Type:	Extended return to door, round bar lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	Ø20 x 175mm
Certification:	EN 1906 Grade 4 EN 1670 Grade 3 EN 1634 Up to 90 minutes (timber) EN 1634 Up to 4 hr (steel)
Other:	Approved for use with escape locks to 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)



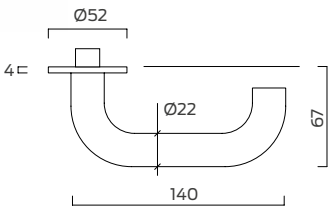
Ref:	4703.20.140
Type:	Straight, round bar lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	Ø20 x 140mm
Certification:	EN 1906 Grade 4 EN 1670 Grade 3 EN 1634 Up to 90 minutes (timber) EN 1634 Up to 4 hr (steel)
Other:	Supplied as a pair with 8mm spindle and bolt through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



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



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 EN 179 for emergency exit applications Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*



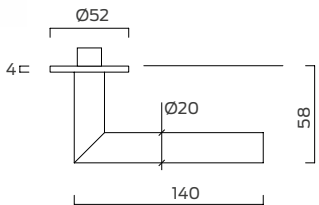
* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)



Briton



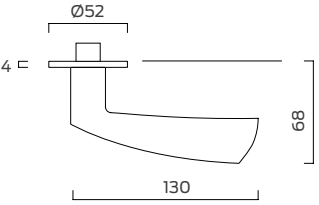
Ref:	4704
Type:	Straight mitred round bar lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	Ø20 x 140mm
Certification:	EN 1906 Grade 4 EN 1670 Grade 3 EN 1634 Up to 90 minutes (timber) EN 1634 Up to 4 hr (steel)
Other:	Supplied as a pair with 8mm spindle and bolt through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



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



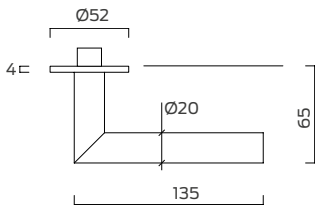
Ref:	4706
Type:	Wing design formed lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	63 x 130mm
Certification:	EN 1906 Grade 4 EN 1670 Grade 3 EN 1634 Up to 90 minutes (timber) EN 1634 Up to 4 hr (steel)
Other:	Supplied as a pair with 8mm spindle and bolt through fixings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



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



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*



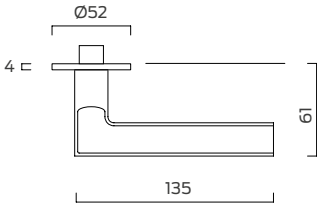
* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)



Briton



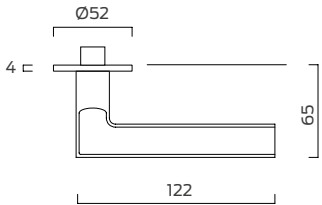
Ref:	4707
Type:	Hollow cut away flat lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	56.5 x 135
Certification:	EN 1906 Grade 4 EN 1670 Grade 3 EN 1634 Up to 90 minutes (timber) EN 1634 Up to 4 hr (steel)
Other:	Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*



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



Ref:	4708
Type:	Hollow curve form lever Mounted on 50mm dia. concealed fix roses with bolt through fixings
Dimensions:	60 x 122
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)



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



Ref:	4710	4711
Description:	Bathroom turn & indicator	Bathroom extended turn & incicator
Dimensions:	Ø52 x 4mm	Ø52 x 4mm
Other:	Supplied with 8mm spindle. Bolt through fixings supplied as standard suitable for doors 44mm-54mm	



Briton



Ref:	4702BP.B.22.140	4702BP.EC.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	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

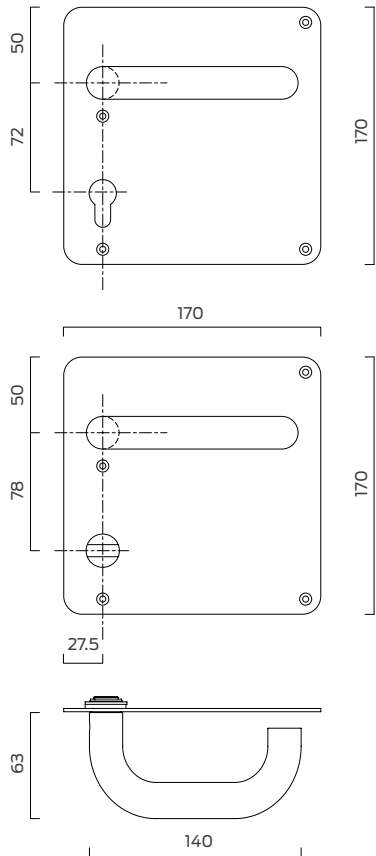
* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)

Backplate handing



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

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



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

Description:	D 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				



Briton



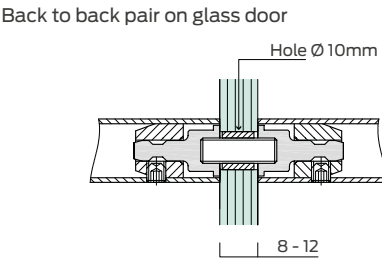
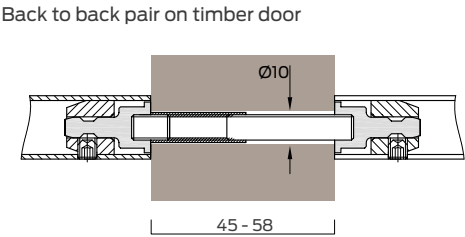
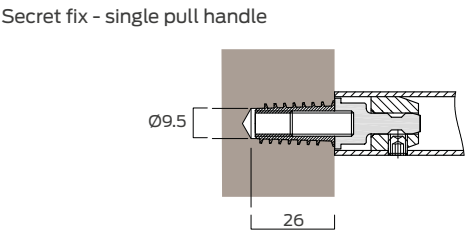
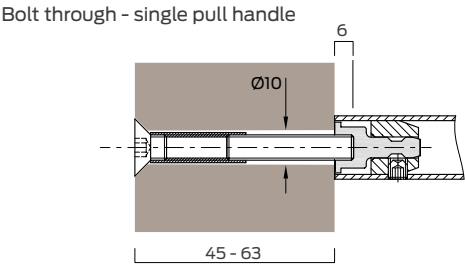
Please note:
Fixing packs for all pull handles must be ordered separately (see page 27)

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

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



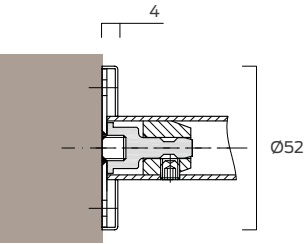
Pull handle fixings
All Briton 4700 Series pull handles can be ordered individually and must be ordered together with a standard fixing pack which contains all the components required to mount the pull handle in any of the 4 applications shown below.
For back to back assembly simply order 2 individual pull handles plus the standard fixing pack.



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



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.



Ref:	Description
4725.20	Face fixed rose mounting kit for 20mm diameter pull handles.
4725.22	Face fixed rose mounting kit for 22mm diameter pull handles.

Briton

A range of accessories completes the integrated door hardware package

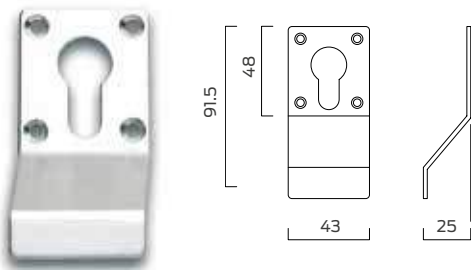


Accessories

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.



Description:	Push and Pull plates for use with bolt through pull handles	
Options:	Plain or engraved. Radiused corners with face fixing screws. Supplied singly.	
4730.75.375	75mm x 375mm	Plain
4730.75.475	75mm x 475mm	Plain
4730.75.675	75mm x 675mm	Plain
4731.75.375	75mm x 375mm	Engraved 'PUSH'
4731.75.475	75mm x 475mm	Engraved 'PUSH'
4731.75.675	75mm x 675mm	Engraved 'PUSH'
4732.75.375	75mm x 375mm	Engraved 'PULL'
4732.75.475	75mm x 475mm	Engraved 'PULL'
4732.75.675	75mm x 675mm	Engraved 'PULL'

Ref:	Description
4733	Cylinder pull with aperture for euro profile cylinder. Supplied with stainless steel face fixings.

Briton

Symbols & signage

A range of 76mm dia. face fixed stainless steel signs and symbols are available.



Description:	Signs & symbols
Options:	A range of face fixed signs and symbols. All 76mm Ø x 1.5mm stainless steel. Supplied singly complete with wood screw fixings.
Ref:	Description
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 **4 3 - 0 1 3 1**



Description:	Flush bolts	
Options:	In a range of lengths and with square or radiused ends. Supplied singly with stainless steel fixings.	
Ref:	Size	End Type
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



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.



Description:	Flush bolts - Fully enclosed	
Options:	With square or radiused ends. Supplied singly.	
Ref:	Size	End Type
4739.R.18.225	225mm x 18mm	Radiused
4739.S.18.225	225mm x 18mm	Square

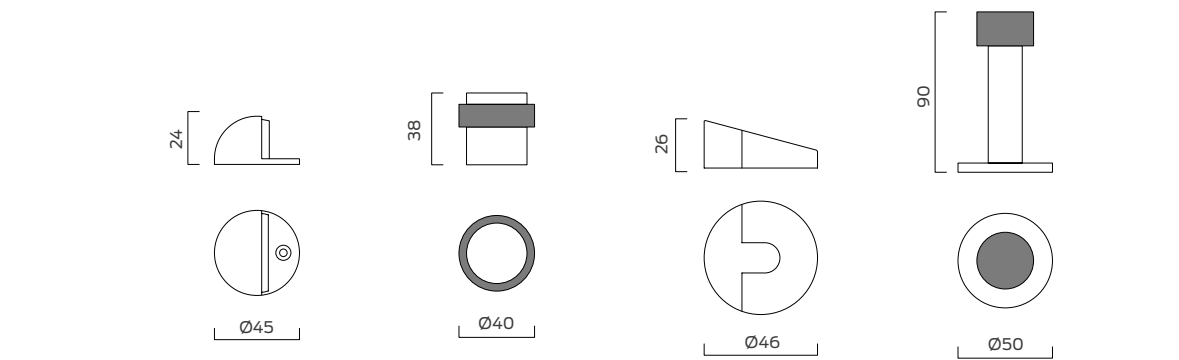


Ref:	Description
FB41P	Automatic flush bolt - Bolt is actuated by the closing action of the door. Meets ANSI A156.3 Type 25. Supplied as a pair. Fully automatic - inactive door is latched, bolts are extended when active door closes. Bolts retract when active door is opened. Low activation forces - top bolt has no spring tension.

Briton




Ref:	4740	4741	4742	4743
Description:	Domed floor mounted door stop	Floor mounted door stop	Wedge shaped floor mounted door stop	Wall or skirting mounted door stop
Dimensions:	Ø45 x 24mm	Ø40 x 38mm	Ø46 x 26mm	Ø50 x 90mm
Other:	Supplied with stainless steel fixings			

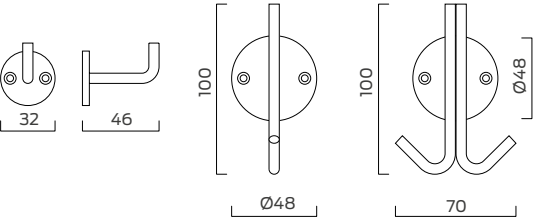


Ref:	Description
482	Security door guard in cast steel



Ref:	Description
U696	Door viewer - small For door thicknesses 35 - 52mm Maximum viewing angle 150°
U698	Door viewer - large For door thicknesses 35 - 54mm Maximum viewing angle 180°





Ref:	Description
4744	Single hook - small, face fixed
4745.1	Single hook - large, face fixed
4745.2	Double hook - large, face fixed
All hooks supplied with stainless steel face fixings	



Briton



Door co-ordinator

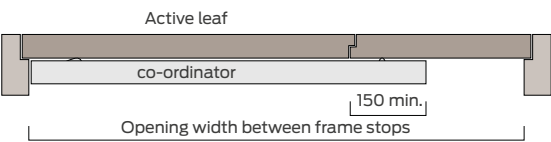
The use of a co-ordinator is required for double doors where one leaf must close first, for example rebated double doors fitted with door closing devices. The co-ordinating unit is mounted on the underside of the transom. The trigger arrangement of the co-ordinator ensures the active leaf is held open 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.



Ref:	Description	For door opening widths
	Door co-ordinator for use with rebated double doors to regulate the closing sequence.	
COR32	Channel length 813mm	864 - 1320mm
COR42	Channel length 1067mm	1320 - 1828mm
COR52	Channel length 1320mm	1575 - 2337mm



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



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.

The standard applies to all surface mounted or concealed overhead door closers, transom mounted closers and floor springs.

EN 1154 – A harmonised standard designed for life safety



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.

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

Fire doors

- Within EN 1154, certain recommendations are made for closing devices used on fire door assemblies. These include:
- Closers size 1 and 2 are not considered suitable for use on fire doors.
 - Door closers shall not include a hold-open device unless it is an electrically powered device connected to the building fire alarm system.
 - Control regulators shall be either concealed or operable only by means of a tool.

- 4

3-4
- Digit 1 - Category of use**
For all internal and external doors for use by the public
- grade 3: For closing doors from at least 105° open
- grade 4: For closing doors from 180° open
- 8

8
- Digit 2 - Number of test cycles**
- grade 8: 500,000 test cycles
- 4

1-7
- Digit 3 - Test door mass/size**
Seven grades are identified - see table opposite on page 25
- 1

0/1
- Digit 4 - Fire behaviour**
- grade 0: Not suitable for use on fire/smoke door assemblies
- grade 1: Suitable for use on fire/smoke door assemblies
- 1

1
- Digit 5 - Safety**
All door closers are required to satisfy the essential requirement of safety in use - only grade 1 is identified.
- 3

0-4
- Digit 6 - Corrosion resistance**
Five grades of resistance are identified to EN 1670
- grade 0: No defined corrosion resistance
- grade 1: Mild resistance (24 hours)
- grade 2: Moderate resistance (48 hours)
- grade 3: High resistance (96 hours)
- grade 4: Very high resistance (240 hours)

Closing force v Opening force

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 the detail of BS 8300 and Approved Document M of Building Regulations, there is a requirement to achieve low opening forces to satisfy the need for easy and universal accessibility. 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.

Mounting positions and closer power



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 pull side applications (for slide 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.

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
- Friction 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.

EN Size	Max. door weight (kg)	Max. door width (mm)
1	20	750
2	40	850
3	60	950
4	80	1100
5	100	1250
6	120	1400
7	160	1600

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 door closers is extremely efficient. The initial opening force decreases very rapidly as the door opens allowing children and the elderly to overcome the closing power without any problem.

During testing, the Briton cam action closers produced opening forces well within the requirements of Approved Doc M and BS 8300.

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 school, library, factory)
- User profile - The Equality Act consideration
- Door situation/size/weight/fire resistance
- Budget
- Aesthetics
- Operating characteristics and other features

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 controls to assist less able users.

High efficiency Briton closers which are capable of meeting the required levels of opening and closing forces are marked with the “Wheelchair Symbol” but accurate installation, hinge friction, door seals and

variable air pressure can all have a bearing on the opening resistance of the final doorset.

For doors which must also meet the stringent closing force requirements of EN 1154 for fire door applications, 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 1155. All these options are available within the Allegion product portfolio.

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

Durability and heavy use

Use and abuse

For some applications; schools, colleges and leisure facilities for example, the opportunity for and likelihood of abusive use of the door is relatively high in comparison with an office suite. In reality, any application where there is little incentive to exercise care is prone to the door closer being subjected to some extreme behaviour. In these cases we would recommend the following features:









Concealed closers - When the door is closed a concealed closer has no projecting arms and the closer body cannot be accessed from either side of the door. This makes it particularly resistant to vandalism and tampering.

Slide arm - Unlike a projecting arm closer, the slide arm and track reduces the possibility of damage.

Backcheck facility - The action of throwing a door open violently can damage the closer, the door and the surrounding frame and walls. The backcheck facility provides a hydraulic dampening to avoid such damage. This is not intended to replace a door stop.

Hold open - For doors which are subjected to high frequency or constant use, the option to keep the door in the open position is both convenient and prevents excessive wear. This feature is not permitted on fire doors.

For fire door applications, the hold-open (or swing-free) feature may be achieved through use of an electromagnetic hold-open or swing-free function which is linked to the building fire alarm or detection system. This option is available on several Briton and LCN series door closers.

										
Series	Briton 2700	Briton 2300		Briton 2400	LCN 4040XP	Briton 2130	Briton 1100		Briton 996	Briton 2820
Description	High performance easy opening cam action overhead door closer	Commercial easy opening cam action overhead door closer		Concealed easy opening cam action overhead door closer	Heavy duty, rack and pinion overhead door closer	High performance, rack and pinion overhead door closer	Medium duty rack and pinion overhead door closer		Dedicated electromagnetic hold-open or swing-free closers	Medium duty floor spring
Accessibility										
Easy opening cam action	■	■		■						
Slide arm for slimline appearance and to minimise abuse	■	■		■	□	□	□			
Concealed closer for optimum aesthetics and abuse resistance				■						
Suitable for fire doors to EN 1634	2hr timber/1hr steel	2hr timber		1hr timber/90mins composite	2hr timber	2hr timber/4hr steel*	2hr timber/4hr steel		2hr timber	1hr timber
Frequency of use	High	Medium		Medium	Very high	Very high	Medium		Medium	High
Electromagnetic hold-open	□				□	□	□		■	
Cover options	A-line/Softline	Trimplate/Softline		n/a	Rounded Cover (metal)	Square (classic)/Luxury/Curved	Square (classic)/Softline		Square (classic)	n/a
Finish options	SES/SSS/PSS/PBS	SES/SSS/PSS		SE/SS/PS (arm only)	13 painted or plated finishes (7 finishes certified to EN 1634)	SES/GES/SSS/PSS	SES/GES/SSS/PSS/PBS		SE/GE/PB	SS/PS
Budget comparison	££££	£££		£££	££££	££££	££		££££	££
Typical applications	High end commercial specifications, leisure centres, care homes, hospitals, schools, nurseries	Internal doors in primary schools, nurseries, care homes, hotels, commercial offices		Internal doors in primary schools, nurseries, care homes, hotels, commercial offices	High end commercial specifications, leisure centres	High end commercial specifications, leisure centres	Warehouses, industrial units, internal office/school doors, back of house doors		High traffic doors, corridors, schools, hospitals	High traffic doors, corridors and double action doors, shopping centres & retail units

■ Standard □ Available as an option/variant

* dependant on cover option

Briton

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



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.
- All-over ‘A-line’ metal cover in a smooth, contemporary design; secured by simple, unobtrusive spring-clips to conceal the main door closer fixings (A-line cover only).
- Optional ‘Softline’ cover design to suite with most other Briton closers.
- Co-ordinated track design with concealed fixings.
- A wide range of adjustable functions for easy adaptation to specific door applications - see specification table.
- Optional mechanical hold-open facility (**Not to be used on fire door applications**) or electromagnetic hold-open option available.

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.



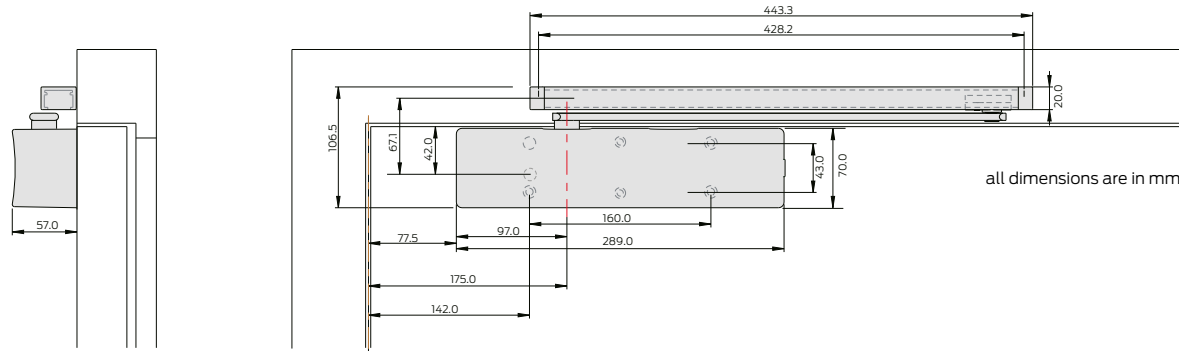
See how easy it is to install. Scan the link or go to: <http://tinyurl.com/pqc9eb5>



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).

Product features	Product references			
	2720BD.T	2721BD.T	2720BD.TE	2721BD.TE
Pull side door / Push side transom mounting	■		door mount only	
Push side door / Pull side transom mounting		■	door mount only	
Variable closing power EN size	2 - 5*	2 - 5	3 - 5	3 - 5
FAST power adjust dial	■	■	■	■
Accufit template & Accufit mounting plate	■	■	■	■
Maximum angle of opening (pull side)	180°	180°	120°	120°
Separate closing speed & latch action adjustment	■	■	■	■
Adjustable backcheck	■	■	■	■
Adjustable delayed action	■	■	■	■
In-built temperature compensation	■	■	■	■
Mechanical hold-open facility	□	□		
Electromagnetic hold-open facility			■	■
Matching slide channel, arm & cover finish	■	■	■	■
Dimensions (body L x D x H mm)	289 x 57 x 70	289 x 57 x 70	289 x 57 x 70	289 x 57 x 70
Channel/slide arm	443 x 20	443 x 20	575 x 26	575 x 26
Finishes available	SSS; PSS; PBS; SES (for both cover options and matching track)			
Warranty period	10yrs	10yrs	10yrs mechanical / 2yrs electrical	
CE Classification	4 8 2-5 1 1 3		3 8 3-5 1 1 3	

■ Standard □ Available as an option/variant

* EN 2 - 4 when push-side transom mounted

Briton

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 suite with other Briton overhead door controls.

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 2300 Series is extremely efficient. The initial opening force decreases very rapidly as the door opens allowing, in particular, children and the elderly to overcome the closing power without any problem.

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.**

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.
- 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.
- Optional mechanical hold-open facility (**Not to be used on fire door applications**).

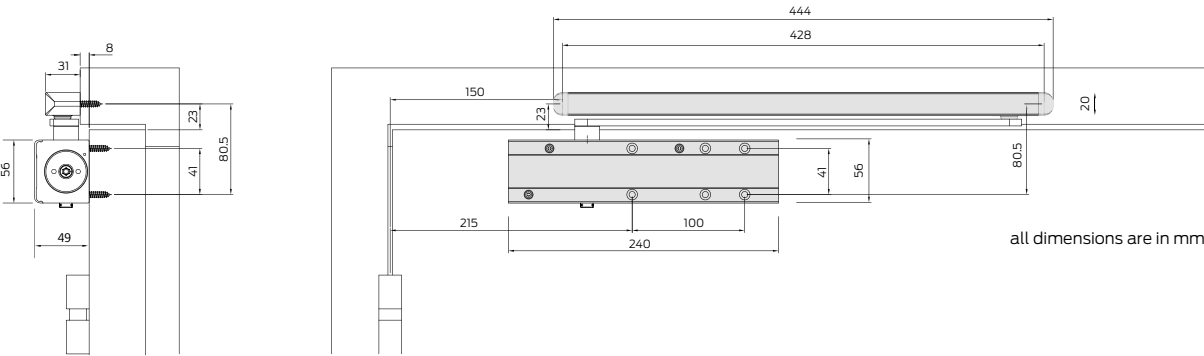


See how easy it is to install. Scan the link or go to: <http://tinyurl.com/l2mra5f>



Briton 2300 closer options showing the radiused slide in trimplate which covers all the fixings and adjustment screws or the optional all-over ‘Softline’ cover which is available in a range of finishes.

This option provides an opportunity to suite the Briton 2300 closer with other Briton closers.



Closers with slide in trimplate

Product features	Product references	
	2320B.T	2321B.T
Pull side door / Push side transom mounting	■	
Push side door / Pull side transom mounting		■
Variable closing power EN size	2 - 4	2 - 4
Accufit template	■	■
Maximum angle of opening*	180°	180°
Separate closing speed & latch action adjustment	■	■
Adjustable backcheck	■	■
Adjustable delayed action		
In-built temperature compensation	■	■
Mechanical hold-open	□	□
Matching slide channel, arm & cover finish	■	■
All over metal cover	□	□
Dimensions (with trimplate L x D x H mm)	240 x 56 x 49	240 x 56 x 49
Dimensions (with cover L x D x H mm)	270 x 68 x 63	270 x 68 x 63
Channel/slide arm	444 x 20	444 x 20
Warranty period	10yrs	10yrs
CE Classification	4 8 2-4 1 1 3	

- Standard
- Available as an option
- * When door mounted. Transom mounted closers are restricted to 120° opening.

Briton

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 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.

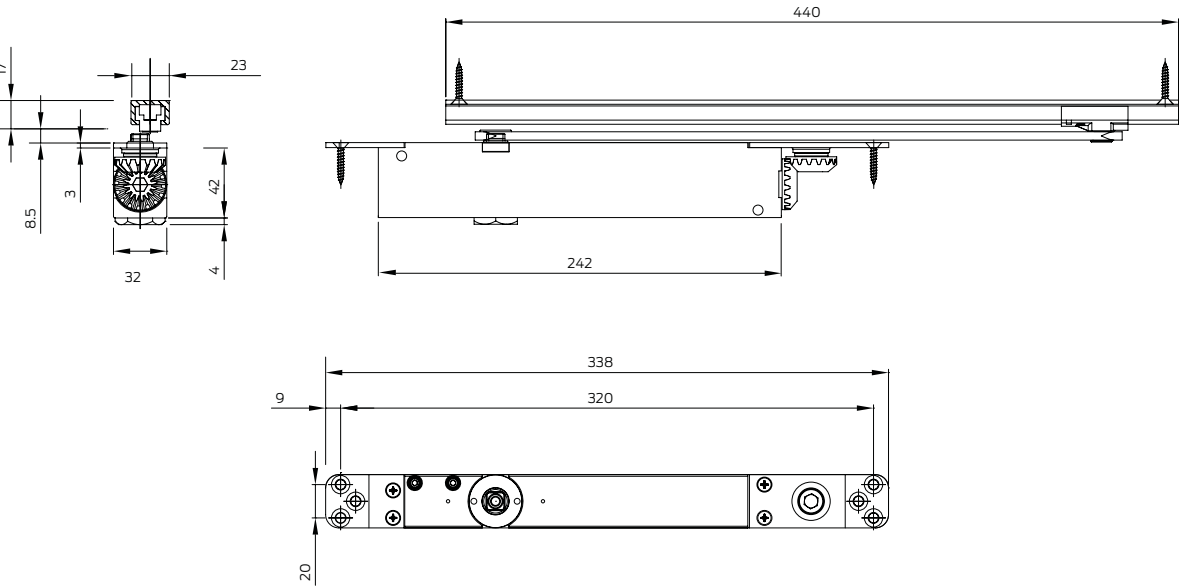
Due to the door and frame preparation required, the Briton 2400 is ideally suited to factory door preparation.

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	Product ref.
	2420T
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	Silver, 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 8 2-4 1 1 3

Specification Tip

Intumescent gasket set (2420.IP)

A significant amount of fire resisting doorset 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

Designed for institutional and other demanding high traffic applications



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

The 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.

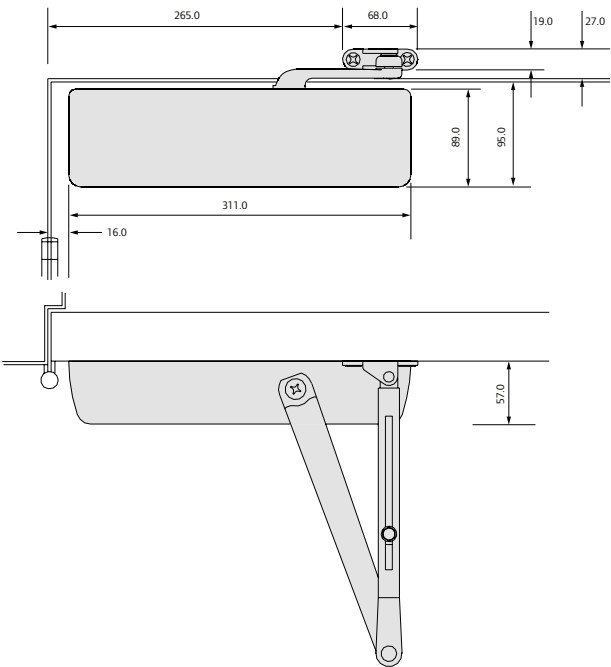


The LCN 4040 Series is tested and certified under ANSI Standard A156.4 and UL listed for use on timber doors to achieve a 2 hour fire rating and 1 hour for steel doors.



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 °).



Product features -ANSI	Product references		
	4040XP	4040XPT	4040SE
ANSI Standard 156.4 Grade 1	■	■	
ANSI Standard 156.15 & NFPA 101			■
ANSI Maximum door width (interior/exterior) mm	1524/1219	1219/-	1219/-
Product features - CE	Product references		
	4040XP	4040XPT	4040SE
CE marked and EN 1154 compliant	■	■	
CE marked and EN 1155 compliant			■
EN power size (Regular fixing - door mount pull side)	1 - 5	2 - 4	3 - 4
EN power size (Parallel fixing - door mount push side)	1 - 5		
EN power size (Transom fixing - pull side)		1 - 3	
CE Classification	3 8 1-5 1 1 3	4 8 2-4 1 1 3	3 8 3-4 1 1 3

Product features	Product references		
	4040XP	4040XPT	4040SE
Adjustable closing power with Green Dial indicator	■	■	■
Installation template	■	■	■
Maximum angle of opening (controlled closing)	180 °	120 °	110 °
Adjustable closing speed & latch action	■	■	■
Adjustable backcheck	■		■
Delayed action	□		
Tri-pack armset for door or transom mounting	■		■
Mechanical hold open facility (non fire doors)	□	□	
Electromagnetic hold-open facility			■
Projecting arm closer	■		■
Slide channel and arm		■	■
Finishes available	7 no. painted finishes available		
Warranty period	10yrs	10yrs	10yrs

■ Standard □ Available as an option/variant

Briton

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).



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

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).**



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



Briton 2130B.T with 'C' cover in satin stainless steel.

Briton

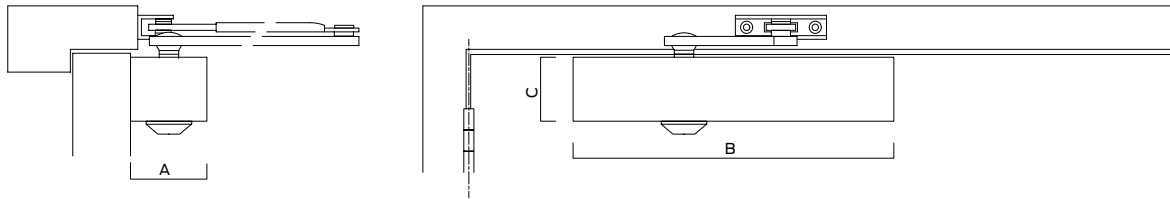
Combining high performance with a variety of design options to suit all applications

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

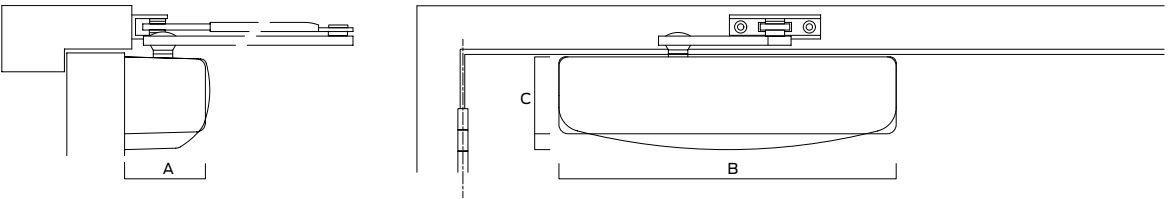
- Projecting arm or slide track options which provide a neat architectural look and reduce the chances of misuse.
- Three cover options, offering the Classic Briton closer cover which will suite with other Briton ranges, the rounded L cover and the gently curved S cover.
- Metallic covers are available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



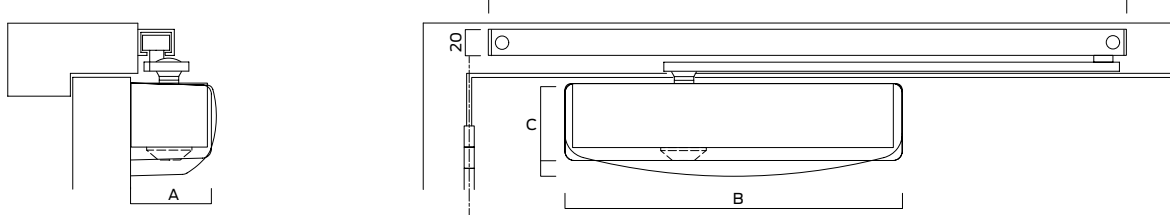
Closers with Classic cover



Closers with L or S cover



2130B.T with Classic (C), L or S cover



closer ref.	body cover	a	b	c
2130B	C	66	310	55
2130B.T	L	62	318	74
2130B.TE	S	71	318	76

Product features			
	2130B	2130B.T	2130B.TE
CE marked	■	■	■
Variable closing power EN size	2 - 6	2 - 4	3 - 4
Power adjustment by spring or template	spring	spring	spring
Accufit template & Accufit mounting plate	■	■	■
Maximum angle of opening	180°	180°	110°
Adjustable closing speed & latch action	■	■	■
Adjustable backcheck	■	■	■
Adjustable delayed action			
Mechanical hold open facility (non fire doors)	□	□	
Electromagnetic hold open facility			■
Projecting arm closer	■		
Slide channel and arm		■	■
Cover variants available (C; L; S)	C/L/S	C/L/S	C/L/S
Warranty period	10yrs	10yrs	10yrs/2yrs
CE Classification	4 8 2-6 113	4 8 2-4 113	3 8 3-4 113

■ 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 flatform arm as standard. All trimplate variants have screw thread arms as standard.



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.



1120/1130 only



Briton 1130B.T with Softline cover in satin stainless steel finish.

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**).

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.

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



Briton 1130B.TE Electromagnetic hold-open

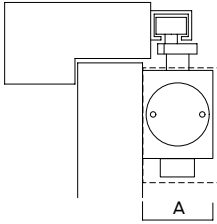
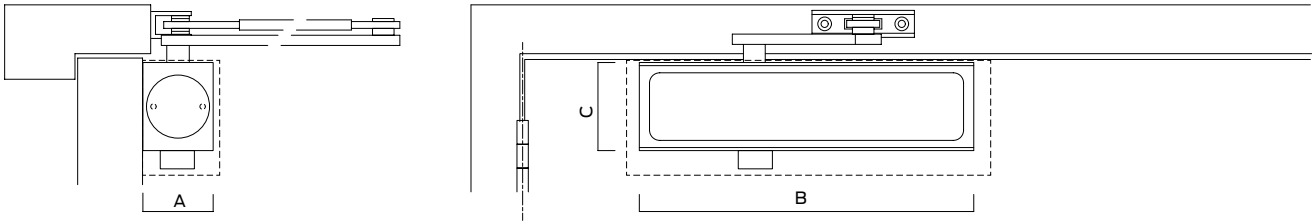
An electromagnet in the slide track is designed to hold the door open during normal use and is connected to the building fire alarm system. On sounding the fire alarm, or in the event of power failure, the electromagnet is deactivated and releases the door closer mechanism to close the door in the normal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

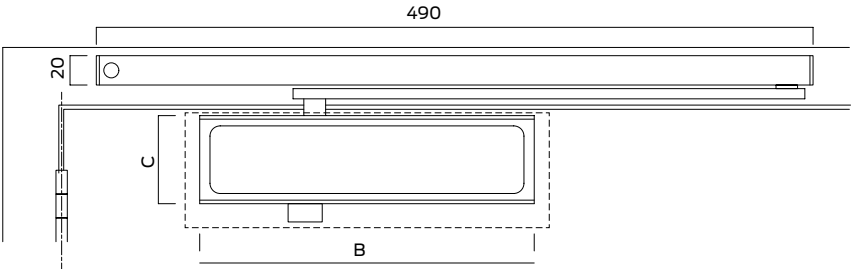


Features of the Briton 1130B.TE closer

- 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.



Closers with trimplate



closer ref.	1110	1120B	1130B	1110.T	1130B.T
A	38.5	38.5	48	38.5	48
B	207	236	297	207	297
C	60	60	60	60	60

Product features	Product references				
	1110	1120B	1130B	1110.T	1130B.T
CE marked	■	■	■	■	■
Fixed closing power EN size	3				
Adjustable closing power EN size	2 - 4	2 - 4	2 - 6*		2 - 4
Power adjustment by spring or template	spring	spring	spring	n/a	spring
Maximum angle of opening	180°	180°	180°	180°	180°
Adjustable closing speed & latch action	■	■	■	■	■
Adjustable backcheck		■	■		■
Tri-pack armset for regular, transom and parallel mounting options	■	■	■		
Mechanical hold-open facility (non fire doors)					
Projecting arm closer	■	■	■		
Slide channel and arm				■	■
Trimplate cover option	■	■	■	■	■
All over cover variants available	C (classic)/ S(softline) - all variants				
Guarantee period	10yrs	10yrs	10yrs	10yrs	10yrs
CE Classification	3 8 2-4 1 1 3	4 8 2-4 1 1 3	4 8 2-6 1 1 3	4 8 3 1 1 3	4 8 2-4 1 1 3

* Note: In parallel mounting position, power size is EN 2 - 5 ■ Standard □ Available as an option/variant

Briton

Briton 996 Series – a dedicated electro-magnetic hold-open or swing-free closer



Parallel mounted version illustrated

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 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.

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.

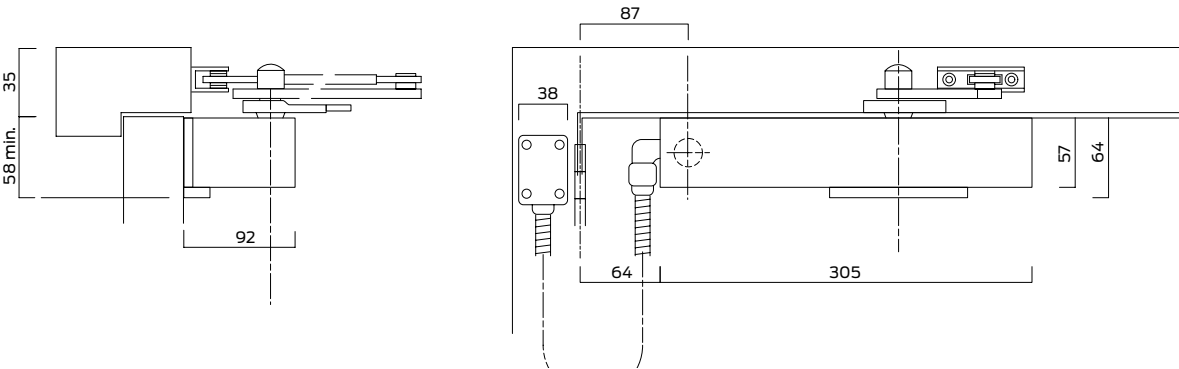


Features & Benefits

- 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 suite 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.

Specification Tip

We recommend the specification of a higher power closer than the door size denotes as the spring function will not be active until the actuation of the fire alarm. This will assist in overcoming positive or negative air pressure.



Product features	Product references					
	9963/01	9963/66	9964/01	9964/66	9965/01	9965/66
CE marked (EN 1155)	■	■	■	■	■	■
Fixed closing power EN size	3	3	4	4	5	5
Maximum angle of opening (controlled closing)	110 °	110 °	110 °	110 °	110 °	110 °
Adjustable closing speed & latch action	■	■	■	■	■	■
Regular and transom mounting	■		■		■	
Parallel mounting		■		■		■
Hold-open adjustment	■	■	■	■	■	■
Free-swing operation	■	■	■	■	■	■
Cover variants available	Classic	Classic	Classic	Classic	Classic	Classic
Guarantee period	All variants - 10yrs mechanical / 2 years electrical					
CE Classification	3 8 3 1 1 3	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

■ Standard □ Available as an option/variant

Briton

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.

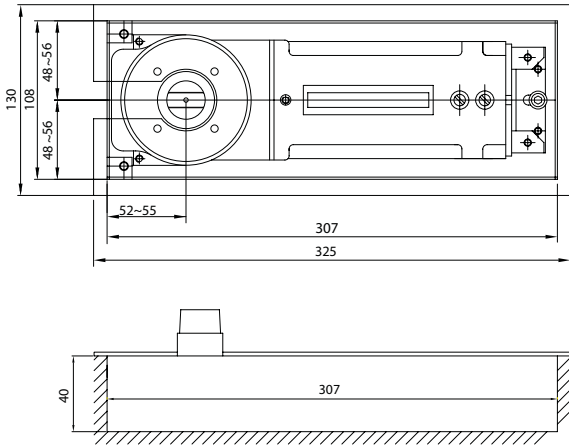
Mounted within a low profile cement box, the Briton 2820 Series floor springs are suitable for single and double action doors with a maximum opening angle of 130° and with optional hold-open facility (for non-fire doors only).

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	2823.SS	2824.SS	2823.SS.HO.90	2823.SS.HO.105
CE marked	■	■		
Fixed closing power EN size	3	4	3	3
Conforms to EN 1154	■	■	■	■
Suitable for single action doors	■	■	■	■
Suitable for double action doors	■	■	■	■
Maximum angle of opening	130°	130°	130°	130°
Adjustable closing speed & latch action	■	■	■	■
Mechanical hold-open (non fire doors)			■ 90°	■ 105°
Dimensions	cement box 307 x 108 x 40mm; cover plate 325 x 130mm			
Cover plate in satin stainless steel	■	■	■	■
Cover plate in polished stainless steel	□	□	□	□
Guarantee period	10yrs	10yrs	10yrs	10 yrs
CE Classification	4 8 3 1 1 3	4 8 4 1 1 3		

■ Standard □ Available as an option/variant



Briton

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.



Unit with slide track arm for fitting to the pull side of the door.

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.

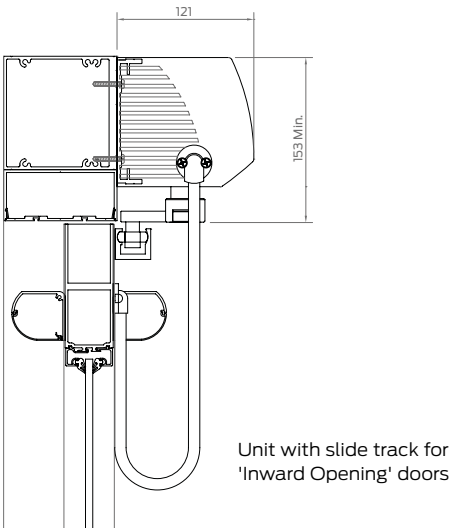
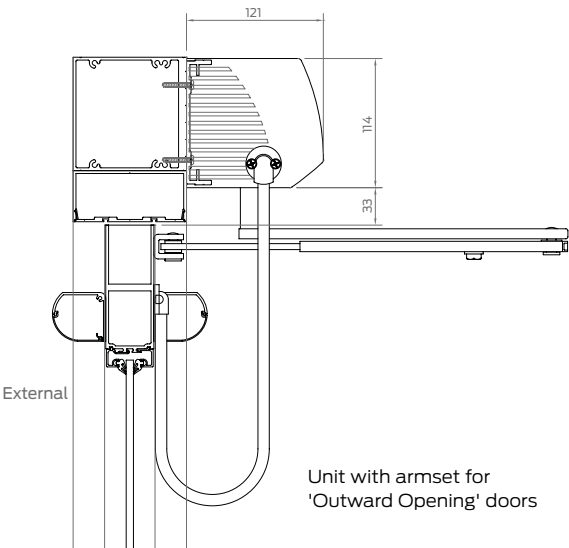


Low Energy Operator Features and Options

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.



Product features	Product references	
	2550.C	2550.T.C
CE marked	■	■
Mounted on Pull side of door (with track arm)		■
Mounted on Push side of door (with projecting arms)	■	
Maximum / Min. door width *	1200 / 660mm	1200 / 760mm
Maximum leaf weight	80 kg	80 kg
Adjustable opening & closing speed	■	■
Adjustable delayed closing	1 - 30 seconds	1 - 30 seconds
Power requirements	240V ac ± 10%	
Dimensions	Operator 112 x 121 x 710mm	
Guarantee period	1 year	

* 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.



Accessory	Description
2550.AP	Arm pack push - regular
2550.T.AP	Arm pack pull - slide channel
2550.FG	Rubber Finger Safe
2550.PP.L.PTO	Push pad - large with engraving "Push to Open" and surface mounting box
2550.PP.S.PTO	Push pad - narrow with engraving "Push to Open" and surface mounting box



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.

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



Panic Applications - Conforming to EN 1125

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 APPLICATION - EN 179:2008



Emergency Applications - Conforming to EN 179

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 'jimmied' 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.

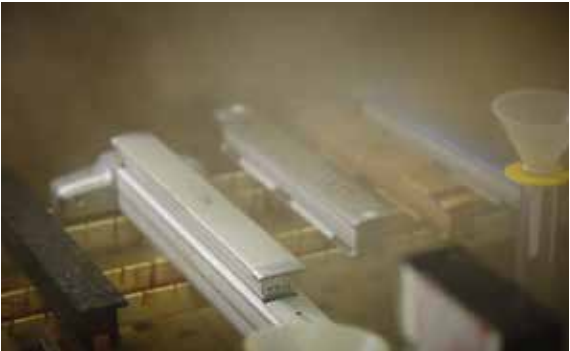


Independently tested in excess of 5 million cycles

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.



Von Duprin exit devices undergoing cycle testing beyond 5 million cycles, far in excess of the requirement for ANSI grade 1.



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

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	Cycles
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.

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
- Addiitonal 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.

Series	Von Duprin 98/99 Series	Briton 570 Series	Briton 560 Series	Briton 581
Description	Very heavy duty panic exit hardware	Modular panic exit hardware system	Modular panic exit hardware system	Modular emergency exit hardware system
Touch bar operation	■	■		
Push bar operation			■	
Push pad operation				■
CE marked to EN 1125	■	■	■	
CE marked to EN 179				■
Approved to ANSI A156.3	■			
Rim latch device	■	■	■	■
Vertical bolt device	■	■	■	■
Electric latch retraction	■			
No. of latching points	1 to 3	1 to 5	1 to 5	1 to 5
No. of test cycles	500,000	200,000	200,000	200,000
Certified for use on fire doors	2hr timber	2hr timber/2hr steel	2hr timber/2hr steel	2hr timber/2hr steel
Suitable for single doors	■	■	■	■
Sutiable for double doors	■	■	■	■
Budget comparison	££££	££ - £££	££ - £££	££
Typical applications	High specification applications and situations requiring a heavy duty solution	Medium to high end commercial applications	Medium to high end commercial applications	Medium to high end commercial applications

Briton

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

Briton 560 and Briton 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 bar device in SE finish (silver with black end cases)

Briton 581 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.



Briton 571 touch bar device in SES finish (silver with matching end cases)

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

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



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).

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



See for yourself how easy it is to install. Scan the link or go to:
<http://tinyurl.com/83yech9>

Briton

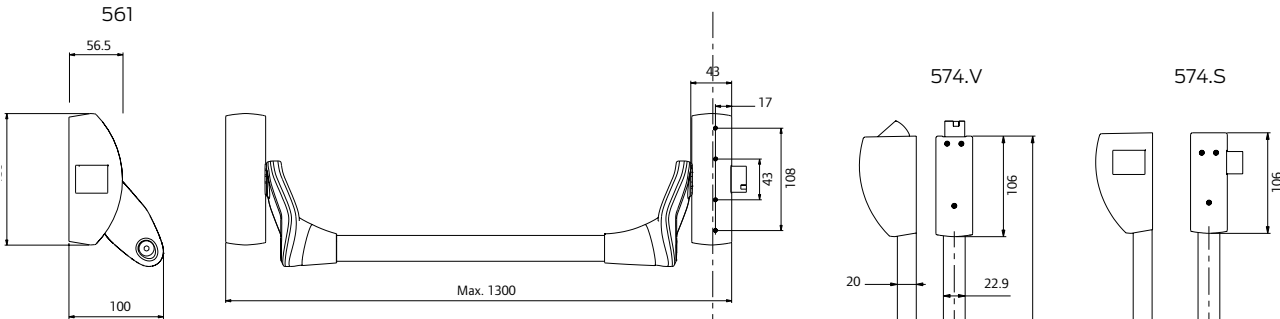
Typical applications

		
3 point locking Components required	3 point locking Components required	3 point locking Components required
Briton 571.1*	Briton 571.1*	Briton 561
Briton 574.S	Briton 574.VS	Briton 574.VS
Finish SES	Finish SES	Finish SES

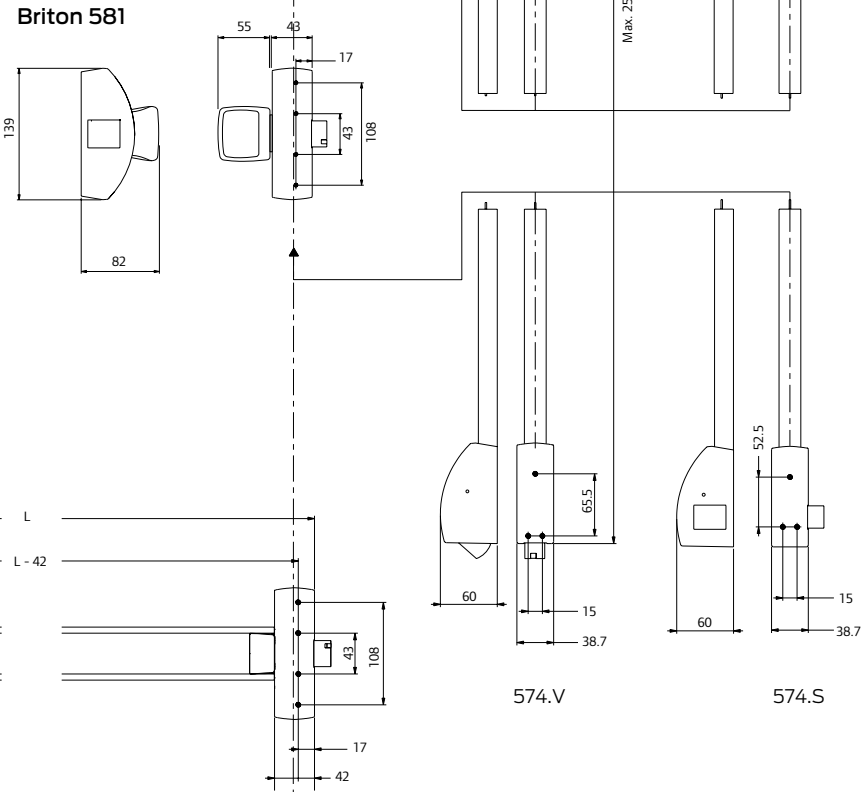
* The 571 device is available in 2 lengths (specify 571.1 for 1200mm wide and 571.2 for 840mm wide).

Device Type	561	571.1	571.2	573.N.1	573.N.2	581	574.V	574.S	574.VS.L	574.VS.R	574.AS
Panic exit device	■	■	■	■	■						
Emergency exit device						■					
Touch bar operator		■	■	■	■						
Push bar operator	■										
Push pad operator						■					
Pullman latches top/bottom				n/a	n/a		■				
Pullman latches side acting				n/a	n/a			■			■
Pullman latches - top and side acting bottom combination				n/a	n/a				■	■	
Touch bar with mortice nightlatch				■	■						
Features											
Fast-Fix cable system							■	■	■	■	■
Vertical cable cover cut on-site							■	■	■	■	■
Self handed	■	■	■	■	■	■	■	■			■
Handed - specify when ordering									■	■	
Alarmed	□	□	□	□	□	□					
Dogged hold-open facility	□	□	□	□	□	□					
5 year guarantee	■	■	■	■	■	■	■	■	■	■	■
Finishes											
Powder coated silver (SE, SES)	■	■	■	■	■	■	■	■	■	■	■
Plated finishes (SS, PS, PB)	■	■	■	■	■	■	■	■	■	■	■

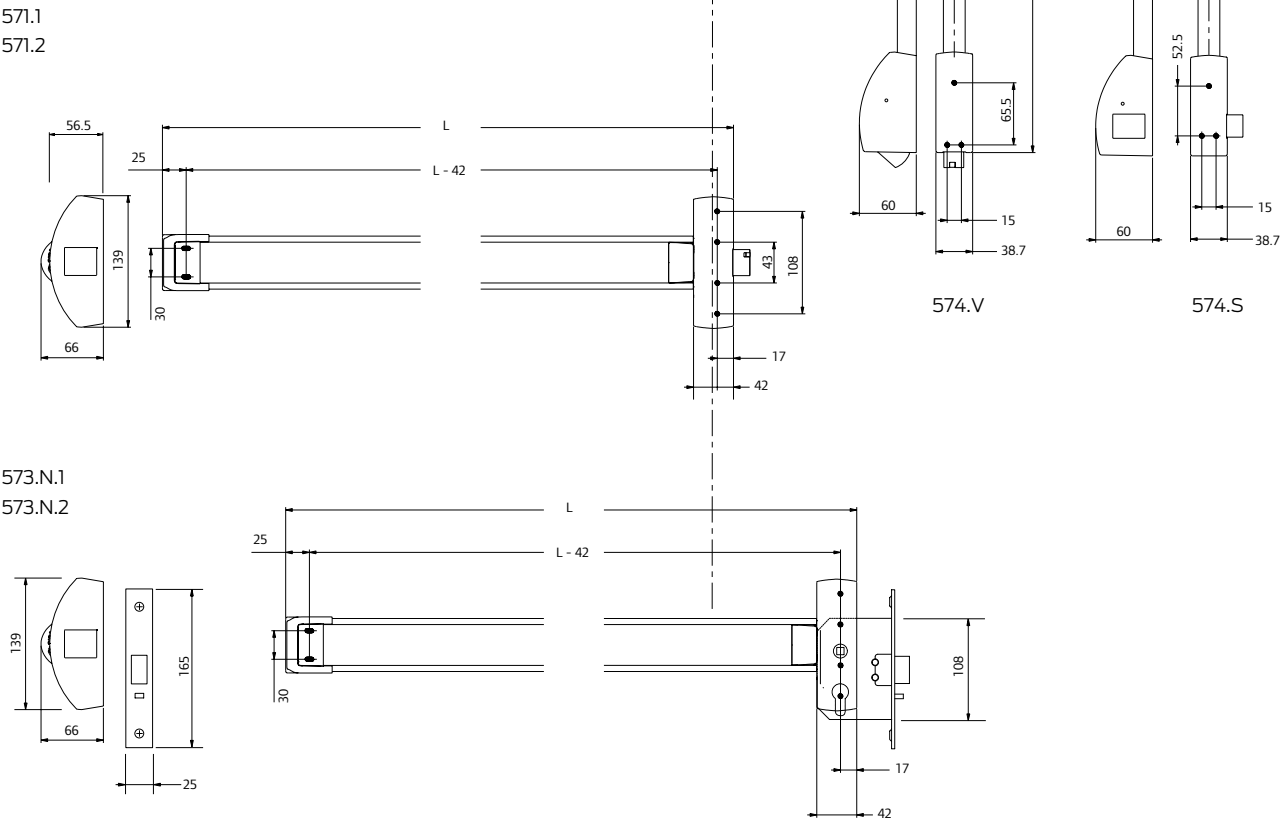
Briton 560



Briton 581



Briton 570



Key:
L= 1200mm or 840mm

VON DUPRIN

Heavy duty CE marked panic exit hardware designed for extreme applications

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.



Von Duprin 98 Series panic device, 9857 with grooved case

The 98 and 99 Series panic exit hardware are distinguished by the smooth or grooved mechanism cover. All functional variations are available in both styles and are available in different lengths to suit doors from 610mm to 1200mm door leaf widths.



Von Duprin 99 Series panic devices have a smooth case - shown with stainless steel finish



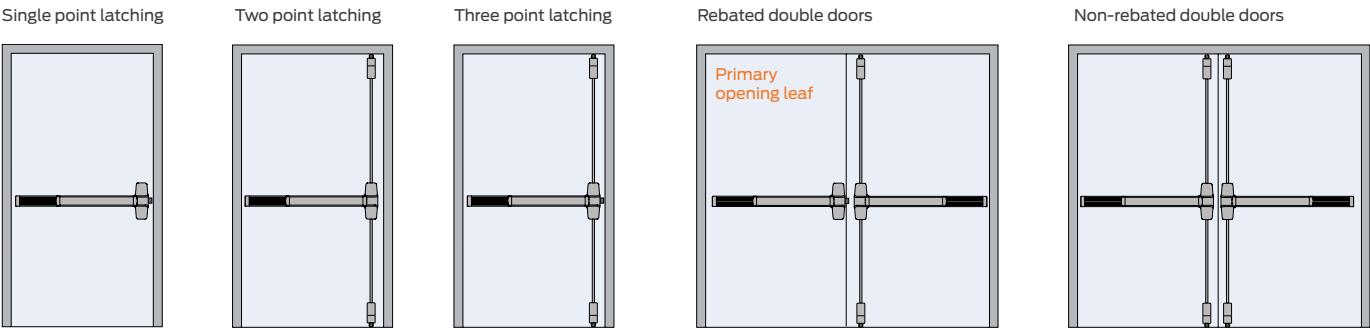
Features & benefits

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

Typical applications of single and double door combinations



Single doors offering single, double or triple point latching

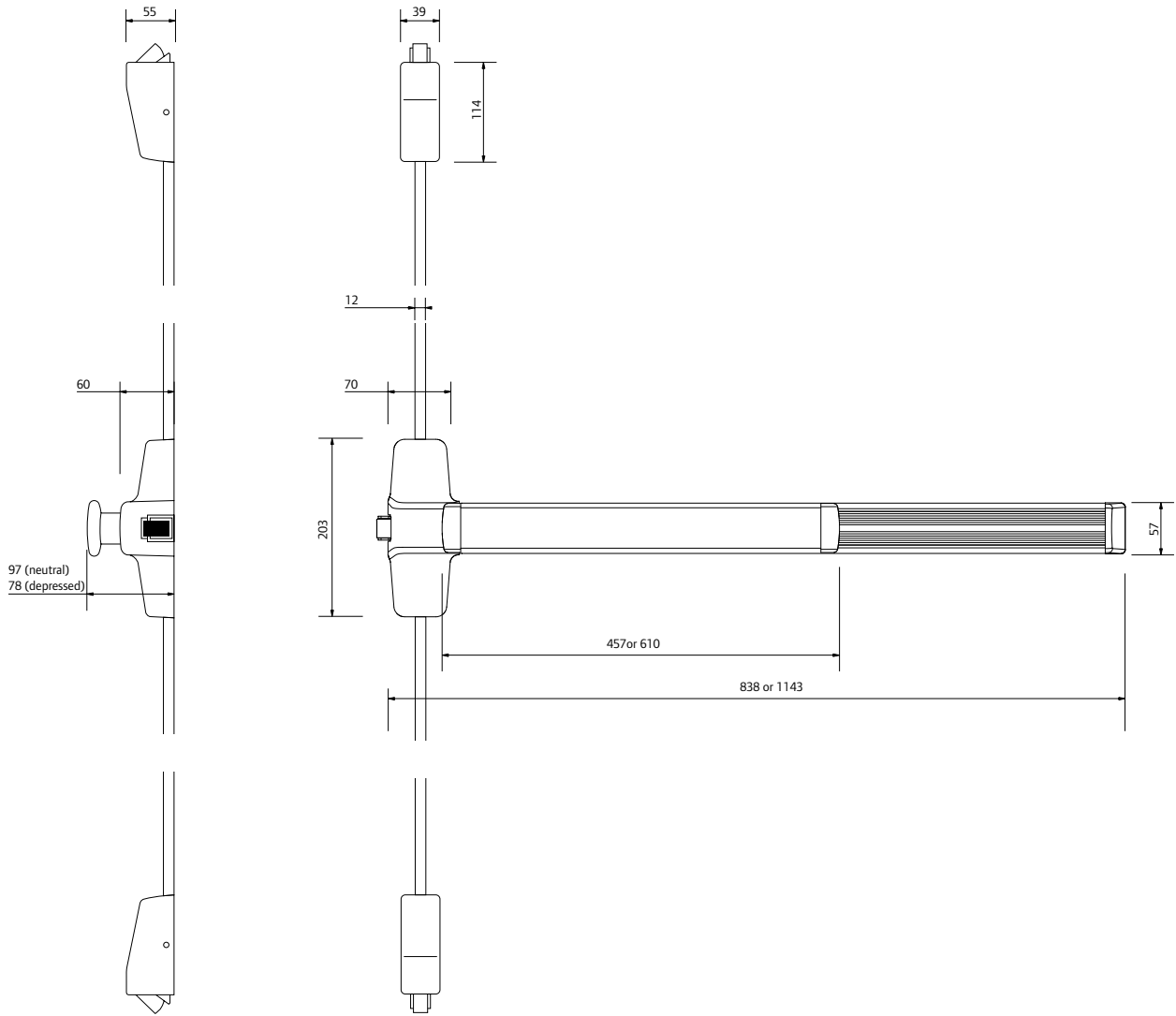
Double door combinations for rebated or non rebated double doors

Certification - ANSI	Product references						
98 Series - Ribbed casing	98	98F	EL98	9827	9827F	9857	9857F
99 Series - Smooth casing	99	99F	EL99	9927	9927F	9957	9957F
ANSI A156.3 Approved - Grade 1	■	■	■	■	■	■	■

Certification - EN	Product references						
98 Series - Ribbed casing	98	98F	EL98	9827	9827F	9857	9857F
99 Series - Smooth casing	99	99F	EL99	9927	9927F	9957	9957F
CE marked	■	■	■	■	■	■	■
Conforms to EN 1125	■	■	■	■	■	■	■
Fire tested to EN 1634-1	2 hour	2 hour	2 hour	2 hour	2 hour	2 hour	2 hour
for timber fire doors							
CE Classification	3 7 6 B 1 3 2 2 B A						

Product features	Product references						
98 Series - Ribbed casing	98	98F	EL98	9827	9827F	9857	9857F
99 Series - Smooth casing	99	99F	EL99	9927	9927F	9957	9957F
Single point rim latch	■	■	■				
Vertical bolts				■	■	■	■
No. of latching points	1	1	1	2	2	3	3
Adjustable shoots		■		■	■	■	■
Electric latch retraction			■				
Dogged hold-open	□		□	□		□	
Fire tested to EN 1634	■	■	■	■	■	■	■
Guarantee period	3yrs	3yrs	1yr	5yrs	5yrs	5yrs	5yrs

■ Standard □ Available as an option/variant



VON DUPRIN

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.



Product features	Product references						
98 Series - Ribbed casing	98	98F	EL98	9827	9827F	9857	9857F
99 Series - Smooth casing	99	99F	EL99	9927	9927F	9957	9957F
Trim option 990DT	■	■	■	■	■	■	■
Trim option 990NL	■	■	■	■	■	■	■
Trim option 991K	■					■	■



Photography by Craig Auckland

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.

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.

Example		
<div>3</div> <div>1-3</div>	Digit 1 - Category of use Three grades are identified Grades 1 - 3	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
<div>X</div> <div>A-X</div>	Digit 2 - Durability Twelve grades are identified Grades A - X	Grade X - 200,00 test cycles with 120N side load on latch bolt
<div>8</div> <div>1-7</div>	Digit 3 - Door mass and closing force Nine grades are identified Grades 1 - 9	Grade 8 - Up to 200kg door mass, 15N maximum closing force.
<div>1</div> <div>0/1</div>	Digit 4 - Suitability for fire/smoke doors Two grades are identified Grades 0 - 1	Grade 1 - Suitable for use on fire/smoke resisting assemblies subject to satisfactory fire testing or assessment
<div>0</div> <div>0</div>	Digit 5 - Safety Only Grade 0 is identified	Grade 0 - No safety requirement
<div>G</div> <div>0-G</div>	Digit 6 - Corrosion resistance Eight grades are identified to EN 1670 Grades 0 - G	Grade G - Very high corrosion resistance 240 hours salt spray at -20 °C to +80 °C
<div>4</div> <div>1-7</div>	Digit 7 - Security and drill resistance Seven grades are identified Grades 1 - 7	Grade 4 - High security and no drill resistance
<div>B</div> <div>A-R</div>	Digit 8 - Field of door application Eight categories are identified to EN 1670 Grades 0 - G	Category A - Mortice type with unrestricted application
<div>A</div> <div>A-R</div>	Digit 9 - Type of key operation Nine types are identified Type 0 - H	Type A - Cylinder lock or latch, manual locking
<div>2</div> <div>0-4</div>	Digit 10 - Type of spindle operation Five types are identified Grades 0 - 4	Type 2 - Lock or latch for unsprung lever handle operation
<div>0</div> <div>0-H</div>	Digit 11 - Key identification requirement Nine categories are identified Grades 0 - H	Category 0 - No requirement for key identification

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.



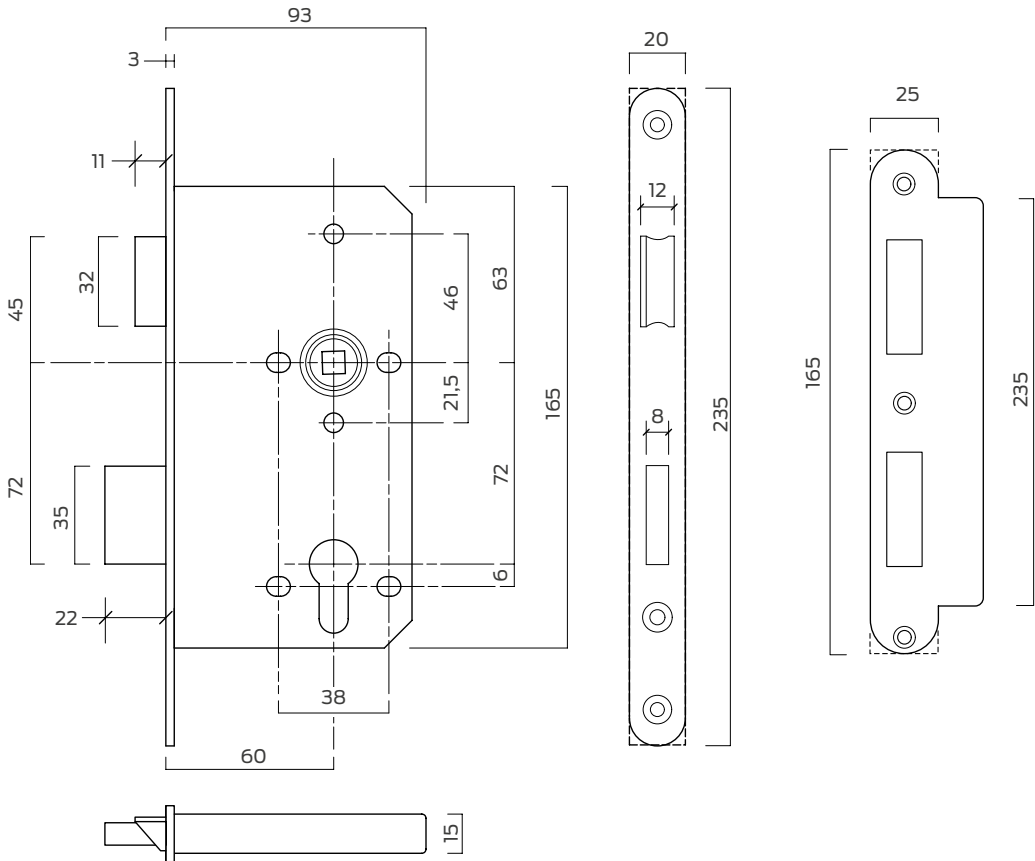
Briton 5520 Cylinder Sashlock

Conforms to European Standards EN 12209 and EN 179 and carries the CE mark. Tested to EN 1634.



Product ref.	Function/description	Centres	CE Classification
5510	Deadlock - cylinder operates deadbolt only	72mm	3X810G4BA00
5520	Sashlock - lever operation of latchbolt, cylinder operation of deadbolt. Cylinder to latch function.	72mm	3X810G4BA20
5530	Bathroom lock - lever operation of latchbolt, 8mm bathroom turn follower to operate deadbolt	78mm	3X810G-B020
5535	Bathroom deadbolt - 8mm bathroom turn follower to operate deadbolt only	n/a	3X810G-B000
5540	Latch - lever operation of latchbolt only	n/a	3X810G-B020
5550	Nightlatch - lever operation from inside to withdraw the latchbolt, cylinder from outside. Hold-back function.	72mm	not CE marked
5555	Nightlatch - lever operation from inside to withdraw the latchbolt, cylinder from outside. No hold-back function.	72mm	3X8100G-B020
5560	Escape sashlock - lever operation of latchbolt, cylinder operation of deadbolt from either side. Inside lever withdraws latchbolt and deadbolt simultaneously for immediate escape. (This is not a split follower lock and must be used with a double cylinder)	72mm	3X810G4BA20 (EN 12209) 376B1442AB/D (EN179)

Radiused and square forends are available with matching strikes. Add suffix .R or .S to product code:
e.g 5510.R for radiused forend and strike, 5510.S for square forend and strike.



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 radiused 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.

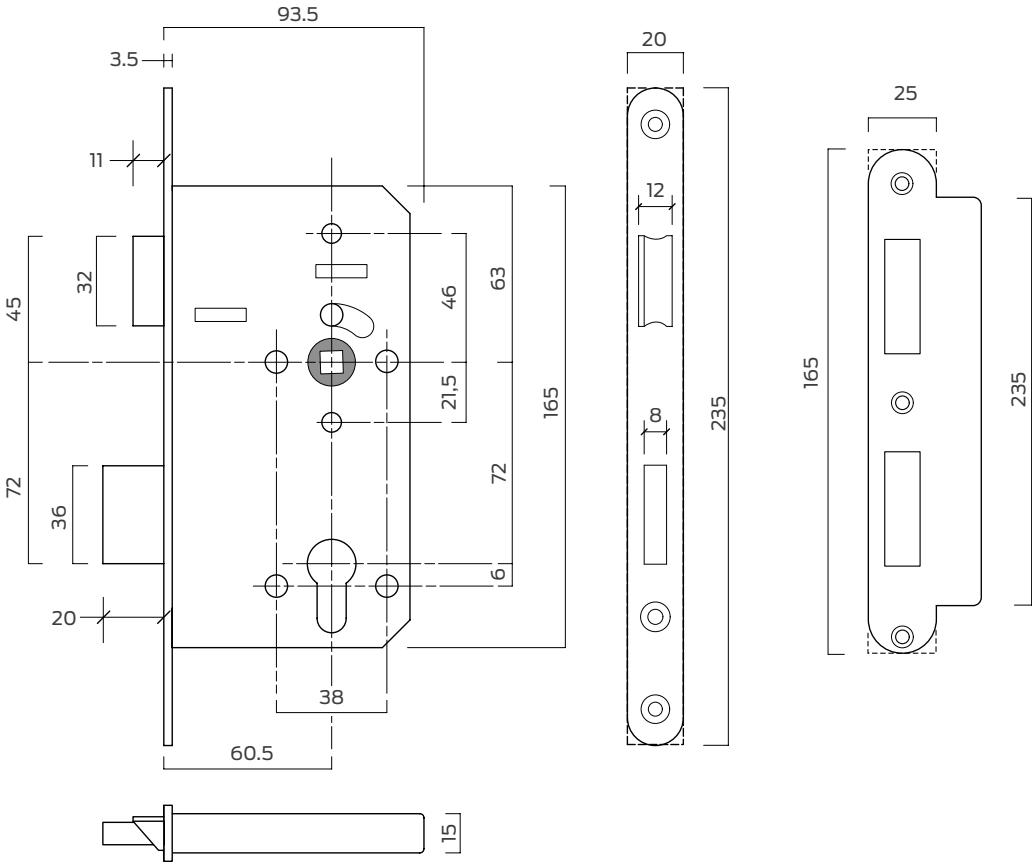


Conforms to European Standards EN 12209 and EN 179 and carries the CE mark.



Product ref.	Function/description	Centres	CE Classification
5650	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.	72mm	3X810FIBB20
5660	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.	72mm	3X810F3BA20 (EN 12209) 376B1442AB/D (EN179)

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.



A guide to selecting the right cylinder in the right place



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.

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.

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.

Methods of protecting against forced entry are ‘defensive’ features of passive security.

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 keyblank 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.

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.



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.

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.
- Multi-function options including classroom function.
- 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.

EN1303:2005	Category of use	Durability	Door mass	Fire resistance	Safety	Corrosion resistance	Key related security	Attack resistance
Briton 75-29	1	6	0	0	0	C	5	2*

* when used with security escutcheon see page 82.

CISA multi-level solutions integrated into a single system



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.



Astral and Astral S double cylinders showing the laminated snap-resistant core on the Astral S, a physical and visual deterrent to attack.

Features and benefits

- Patented system (Astral Tekno) to 2026.
- Kitemarked TS007 - 1 Star (Astral S).
- 10 pin key biting 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.



CE Classification

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

EN1303:2005	Category of use	Durability	Door mass	Fire resistance	Safety	Corrosion resistance	Key related security	Attack resistance
Astral Tekno	1	6	0	1	0	C	6	0
Astral S	1	6	0	1	0	C	6	2*
Astral	1	6	0	1	0	C	6	0

* drilling and torque resistance



Features and options	Briton 75-29	Astral Tekno	Astral S	Astral	Features and options
No. of pins	6 + check pin	2 row 10 pin	10 pin	10 pin	No. of pins
Push resistant projecting cam	■	■	■	■	Push resistant projecting cam
Anti-pick pins	■	■	■	■	Anti-pick pins
Anti-drill	■	■	■	■	Anti-drill
Bump resistant		■	■		Bump resistant
Snap resistant			■		Snap resistant
Patent protection	up to 2029	up to 2026			Patent protection
Protected key duplication	■	■	■	■	Protected key duplication
Code card required for key duplication		■	■	■	Code card required for key duplication
No. of differs	30,000	1.6 million	1.6 million	1.6 million	No. of differs
Masterkeying capacity	TBA*	up to 63,000 keys	up to 63,000 keys	up to 63,000 keys	Masterkeying capacity
		■	■	■	
EN 1303:2005 Classification	1 6 0 0 0 C 5 2	1 6 0 1 0 C 6 0	1 6 0 1 0 C 6 2	1 6 0 1 0 C 6 0	EN 1303:2005 Classification
Kitemarked TS007:2012			■		Kitemarked TS007:2012
Anti-barricade function	□	□	□	□	Anti-barricade function
Classroom function	■				Classroom function
Construction keying function	■				Construction keying function

* Dependent on the complexity of the masterkey system

Briton

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.

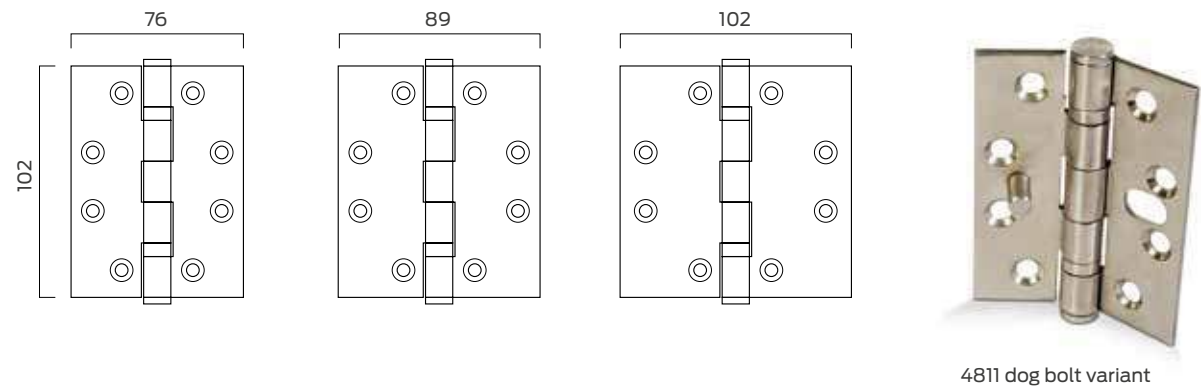


Features & Benefits

- Five knuckle ball bearing hinges.
- CE marked to EN 1935:2002 Grade 13.
- 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.



Product ref.	Size	Dog bolt	Material Grade	Finish	CE Classification
4801	102 x 76 x 3		304	.SS / .PS	4 7 6 1 1 4 0 1 3
4802	102 x 89 x 3		304	.SS / .PS	4 7 6 1 1 4 0 1 3
4803	102 x 102 x 3		304	.SS / .PS	4 7 6 1 1 4 0 1 3
4801.316	102 x 76 x 3		316	.SS / .PS	4 7 6 1 1 4 0 1 3
4802.316	102 x 89 x 3		316	.SS / .PS	4 7 6 1 1 4 0 1 3
4803.316	102 x 102 x 3		316	.SS / .PS	4 7 6 1 1 4 0 1 3
4811	102 x 76 x 3	■	304	.SS / .PS	4 7 6 1 1 4 0 1 3
4812	102 x 89 x 3	■	304	.SS / .PS	4 7 6 1 1 4 0 1 3
4813	102 x 102 x 3	■	304	.SS / .PS	4 7 6 1 1 4 0 1 3
4811.316	102 x 76 x 3	■	316	.SS / .PS	4 7 6 1 1 4 0 1 3
4812.316	102 x 89 x 3	■	316	.SS / .PS	4 7 6 1 1 4 0 1 3
4813.316	102 x 102 x 3	■	316	.SS / .PS	4 7 6 1 1 4 0 1 3



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.