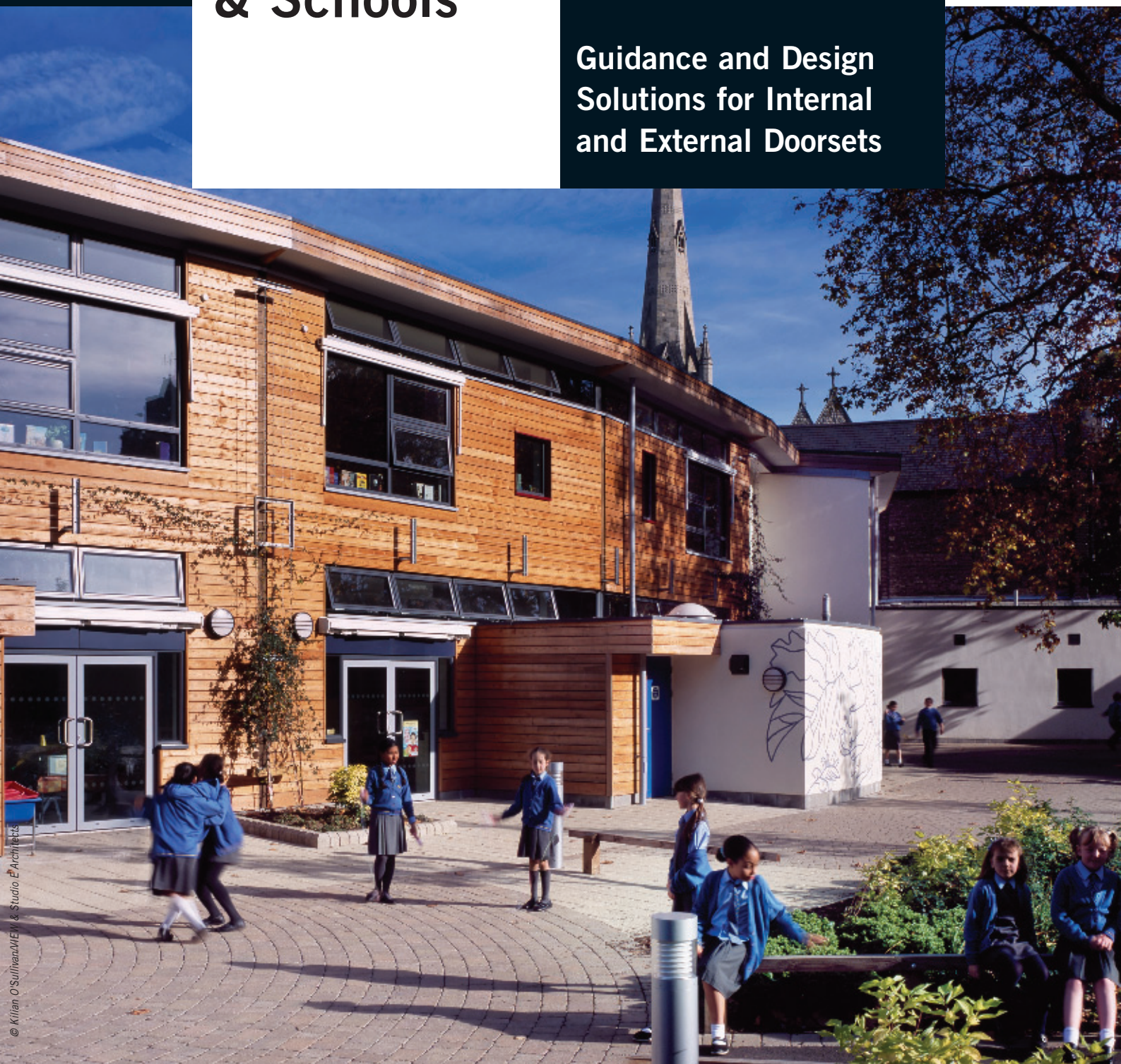
DORMA for Education & Schools

Guidance and Design Solutions for Internal and External Doorsets



Contents

Full technical documentation and specifiers guides are available for all the products listed within this brochure.

Building Schools for the Future

The Building Schools for the Future programme provides the opportunity to set standardised specifications, layouts and dimensions to speed up construction, reduce whole-life costs and deliver consistently high quality and better value school buildings.

The Department for Education and Schools have issued a series of guidance documents which detail performance and design criteria for products required to operate and control doors.

DORMA has many years experience in providing products for school projects. We have therefore produced this brochure to advise which products meet the criteria of the guidance documents and are considered the most suitable for use in schools in the following areas:

- Entrance Doors
- Escape Doors
- Movable Walls
- Fire Doors
- Security (Locks)

Initially we will look at automatic doors - the ideal solution to provide convenient access into and around a building, and most commonly selected for entrances. We will then consider the requirements for internal manual doors, the majority of which will be fire doors. Finally, we will examine internal space management options, namely movable walls, which greatly enhance the use of space and ensure school buildings are useful for all.

Automatic Doors

Automatic doors are the ideal solution to access into and around a building to meet the spirit of SENDA (Special Education Needs and Disability Act). Approved Document M states “A powered door opening and closing system, either manually controlled or automatically operated by sensors, is the most satisfactory solution for most people.”

Automatic doors provide a means of opening and closing doors without the need for physical effort. For many people who lack physical ability or who are encumbered by bags containing text books or sports equipment, heavy manual doors can be a barrier to access. Automatic doors remove that barrier.

ES200

Automatic Sliding Doors

The DORMA ES200 sliding doors are an excellent access solution and ideal in areas with heavy traffic. They can be used internally or externally as single or bi-parting doors, telescopic and curved and can be linked to an access control system if you wish to restrict entry to authorised personnel only.

ED200

Automatic Swing Doors

DORMA ED200 swing doors are perfect for both new doors or retro fitted to existing doors and are suitable for both internal and external use.

RST

Space Saving Doors

DORMA offer both folding doors (FFT) and balanced doors (RST) which are ideal for situations where space is restricted.

RST

The DORMA RST has a unique and special swivelling action, elegant design and excellent space-saving characteristics.

The supporting structure and the open door occupy only a hand's breadth, and even at its maximum, the sweep of the door is only a few centimetres outside the door line.

FFT

An important feature of the DORMA FFT folding door is that it doesn't inhibit the door opening and occupies the minimum of depth when open.
It is especially suitable for narrow door openings, passageways and for other locations where space is limited.

FFT

ED800

Low Energy Doors

The DORMA ED800 is perfect in areas of low traffic or where the normal operation of the door is a manual operation. The ED800 allows automatic operation of the door by those who need assistance. This can either be done by use of a push pad or pupils who require assistance opening the door can be provided with a remote control.

ES200

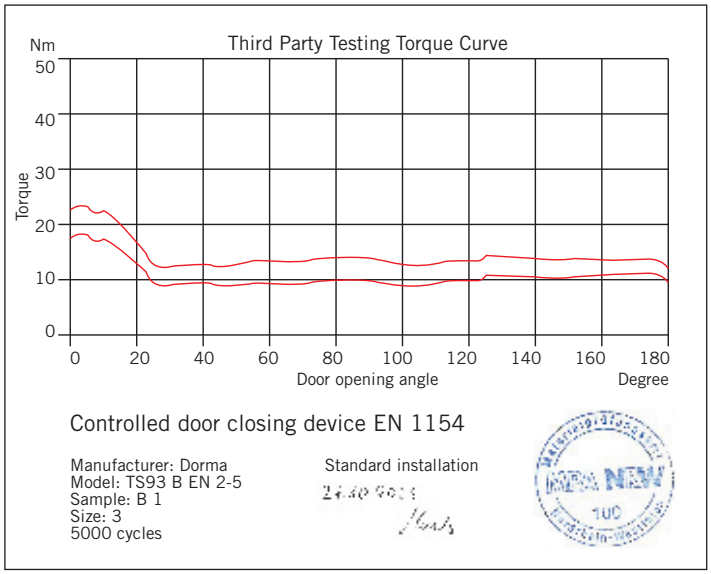
KTV

Revolving Doors

Many larger educational establishments wish to create an impressive entrance to their building and a DORMA revolving door is the perfect way to achieve this.

A revolving door acts as an airlock keeping out draughts, noise, dust and dirt. They can be tailored to your exact requirements, though we would always recommend fitting automatic pass doors to allow for access by those who do not wish to, or cannot, access the revolving door.

Fire Doors



Controlled door closing device EN 1154

Manufacturer: Dorma
Model: TS93 B EN 2-5
Sample: B 1
Size: 3
5000 cycles

Standard installation

FIRE DOORS

The majority of doors within a school will be fire doors. Their purpose is to help stop the spread of fire through a building. As such it is literally a "matter of life or death" that they are closed securely should a fire occur. It is therefore vital that the correct ironmongery is specified: the door closer, the lock, the handle and the intumescent seal. Firstly, let us look at specifying the correct door closer.

There are two main considerations in specifying the correct door controls:
- does it satisfy the necessary fire regulations?
- does it satisfy the requirements of the Special Educational Needs & Disability Act (SENDA)?

The Door Closer

It is essential that the door closer:
- is CE marked to BS EN1154
- is CERTIFIRE approved
- is set at a minimum spring strength of EN3
- meets the requirements of SENDA

BS EN1154 Controlled Door Closing Devices

All DORMA Door Closers are CE Marked to BS EN1154 and have been cycle tested to over 1 million cycles without showing any appreciable wear. Under BS EN1154 the door closer when fitted to a fire door must be set at minimum spring strength of EN3.

CERTIFIRE Approved

CERTIFIRE are an independent approvals board for the testing of fire doors and all associated ironmongery. It is worth noting that an approved door will become invalid if approved ironmongery is not fitted. All DORMA Door Closers are CERTIFIRE approved.

SENDA (Special Education Needs & Disability Act)

The requirement of SENDA is that a person is not disadvantaged by their disability in gaining access around a building. The specific performance of door closers in meeting this requirement is detailed within Approved Document M (ADM) in England and Wales / Section 3 in Scotland / Part R in Northern Ireland, of the Building Regulations and BS8300: 2001, Incorporating Amendment No.1.

This states:
"...a door closer must produce an opening force of below 30N between 0 and 30 degrees and below 22.5N between 30 and 60 degrees...".
On a fire door this must be achieved at minimum spring strength of EN3. Not all door closers available in the market can meet the criteria.

All DORMA door closers carry third party test evidence to demonstrate their ability to comply with the requirements of ADM and BS8300.

Further considerations in selecting door closers

FEATURES

Backcheck

Backcheck ensures the safe deceleration and restraint of a door which has been aggressively opened thereby protecting both the door and the surrounding area. This can be a significant factor in reducing the overall building maintenance costs as walls, doors and projecting ironmongery will not have to be repaired and replaced as often. Most DORMA door closers feature "Thinking Backcheck" which allows a door to be fully opened through normal operation without incurring any increased resistance.
If however the door is *thrown open* in an abusive manner, the "Thinking Backcheck", which is directly proportional to the acceleration of the door when operated, will cushion and arrest the door at 85° to 90° to prevent damage to any adjacent wall, door furniture or the door itself.

Delayed Action

Delayed Action allows the door to stay open longer and a greater number of people to go through the door before it begins to close. With Delayed Action, the door is opened and then delays for a set period of time before closing. The delay is adjustable by valve and can be adjusted to suit each application. This would be very useful on a classroom door allowing all of the occupants who would be accessing the door at the same time, to either enter or leave the room with just one opening and closing cycle of the door. When this is compared to 20 to 30 individual operations it would lead to a significant reduction in the life cycle costs.

Situations when you would prefer not to keep the door closed

Electro-Magnetic Hold Open Devices

When electro-magnetic hold open devices are fitted to doors they dramatically help to improve access in and around any building, particularly in corridors. They allow doors to be held open during normal use and close upon activation of the fire alarm or power failure (fail safe). Once activated, the door closer will close the door and then perform as a normal door closer until the alarm is de-activated or the power restored.

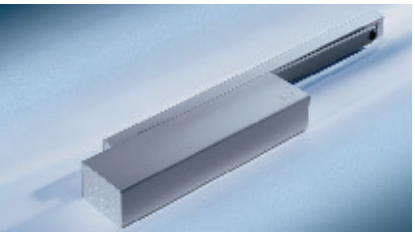
All the DORMA electro-magnetic devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155 (Electronically powered hold-open devices for swing doors).
They are perfect for meeting the requirements of ADM and BS8300. In addition they reduce the life cycle costs as the doors are rarely operated other than for periodical maintenance checks, or if the power is switched off at night.

Free Swing Devices

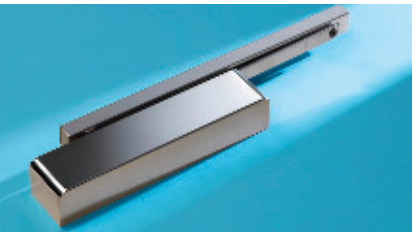
When electro-magnetic free swing devices are fitted to doors they allow doors to be operated without the user feeling any resistance from the door closer mechanism. In addition to this they allow the door to be left in any position, performing as if the door had no closing device fitted. Upon activation of the fire alarm or power failure (fail safe) the Free Swing device will close the door from any position it was left in, and then perform like a normal door closer until the alarm is de-activated or the power restored.

All the DORMA free swing devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155.
As a free swing door closer operates with no opening resistance it is compliant with the requirements of ADM and BS8300.

Hold-open corridor



TS93 in Contur Design: Silver, Coloured, Stainless Steel and Polished Brass



TS93 with Softline cover: Silver, Coloured, Stainless Steel, Polished Chrome and Polished Brass

Cam Action Door Closers

Overhead Cam Action Door Closers

Approved Document B

Approved Document M

The traditional type of door closer is known as a rack and pinion closer which must be used with a projecting scissor arm. However DORMA recommends the selection of cam action door closers instead of these for two reasons:

- Due to their unique cam action they can achieve the requirements of ADM and BS8300* compliance within a greater tolerance than traditional rack and pinion door closers. This is particularly important as hinges and intumescent seals will provide additional resistance to opening and closing.
- Cam action closers have been especially designed for use with slide arm and channels. Traditional rack and pinion door closers can only operate efficiently with standard projecting scissor arms. The use of slide arms within a school dramatically reduces the risk of vandalism as the arm and channel are far less obtrusive than scissor arms. In addition to this there are no fixings visible on the closer mechanism or the slide channel. This combination of slide arm and channel with cam action will result in ease of operation by all users, is less vulnerable to abuse and vandalism and will therefore lead to improved life cycle costs.

DORMA TS93 EN2-5 Cam Action Closer

- Adjustable power EN2-5
- Adjustable thinking backcheck
- Adjustable delayed action
- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119
- Optional mechanical cushion stop available (can be retro-fitted)
- Optional mechanical switchable hold open device (not for fire doors, can be retro-fitted)

BS EN1154 Classification Number 4 8 2/5 1 1 4

ADM/BS8300* Compliance:

- Minimum door width when fitted at size EN3 = 767mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 24.85N

DORMA TS92 EN2-4 Cam Action Closer

- Adjustable power EN2-4
- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119
- Optional mechanical cushion stop available (can be retro-fitted)
- Optional mechanical switchable hold open device (not for fire doors, can be retro-fitted)

BS EN1154 Classification Number 4 8 2/4 1 1 3

ADM/BS8300* Compliance:

- Minimum door width when fitted at size EN3 = 733mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 23.75N

DORMA TS91 EN3 Cam Action Closer

- Power size EN3
- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119 doors, can be retro-fitted)
- Optional mechanical cushion stop available (can be retro-fitted)
- Optional mechanical switchable hold open device (not for fire

BS EN1154 Classification Number 4 8 3 1 1 3

ADM/BS8300* Compliance:

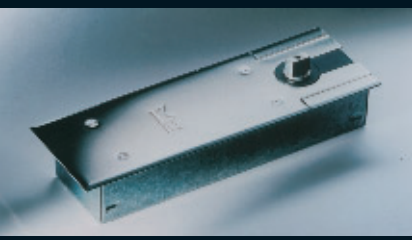
- Minimum door width when fitted at size EN3 = 867mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 28.10N

* Also Section 3 in Scotland & Part R in N. Ireland.

Concealed Door Closers

The ITS96 is concealed within the door leaf and frame and is not visible when the door is shut.

Only the closer arm is visible when the door is in the open position.



BTS75V
Stainless Steel or Polished Brass Cover Plate

Concealed Cam Action Door Closers

Approved Document B

Approved Document M

In addition, DORMA offers a concealed cam action Door Closer (ITS96) that is concealed in the door leaf and frame. This means it is less prone to vandalism and is also ideal for prestigious doors.

DORMA ITS96 EN2-4 Cam Action Closer

- Adjustable power EN2-4
- Unit completely concealed in the door
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF140
- Mechanical cushion stop as standard
- Optional mechanical switchable hold open device (not for fire doors, can be retro-fitted)

BS EN1154 Classification Number 3 8 2/4 1 1 4

ADM/BS8300* Compliance:

- Minimum door width when fitted at size EN3 = 733mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 23.75N

DORMA ITS96 EN3-6 Cam Action Closer

- Adjustable power EN3-6
- Unit completely concealed in the door
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF140
- Mechanical cushion stop as standard
- Optional mechanical switchable hold open device (not for fire doors, can be retro-fitted)

BS EN1154 Classification Number 3 8 3/6 1 1 4

ADM/BS8300* Compliance:

- Minimum door width when fitted at size EN3 = 867mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 28.10N

Floor Springs

Approved Document B

Approved Document M

Floor springs are another alternative to overhead door closers and are suitable for single or double action doors. They provide ease of operation and as they are concealed within the floor - good protection against door closer abuse or vandalism. The DORMA Floorsprings listed within this brochure are all CERTIFIRE Approved and CE Marked to BS EN1154.

DORMA BTS75V EN1-4 Floor Spring

- Adjustable power EN1-4
- Universal for single or double action doors
- Backcheck
- Optional adjustable delayed action model available
- Optional mechanical hold open model available (not for fire doors)
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF127

BS EN1154 Classification Number 3 8 1/4 1 1 4

ADM/BS8300* Compliance:

- Minimum door width when fitted at size EN3 = 767mm
- Opening force at the leading edge when fitted at size EN3 on a 926mm wide door = 24.85N

Electro-magnetic door closers are connected to the fire alarm to allow the door to be held open during normal use. Upon activation of the fire alarm or a power failure, the door closer will be close the door securely.

Situations when you would prefer not to keep the door closed

Electro-Magnetic Hold Open Devices

When electro-magnetic hold open devices are fitted to doors they dramatically help to improve access in and around any building, particularly in corridors. They allow doors to be held open during normal use and close upon activation of the fire alarm or power failure (fail safe). Once activated, the door closer will close the door and then perform as a normal door closer until the alarm is de-activated or the power restored.

All the DORMA electro-magnetic devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155 (Electronically powered hold-open devices for swing doors).
They are perfect for meeting the requirements of ADM and BS8300*. In addition they reduce the life cycle costs as the doors are rarely operated other than for periodical maintenance checks, or if the power is switched off at night.

Free Swing Devices

When electro-magnetic free swing devices are fitted to doors they allow doors to be operated without the user feeling any resistance from the door closer mechanism. In addition to this they allow the door to be left in any position, performing as if the door had no closing device fitted. Upon activation of the fire alarm or power failure (fail safe) the free swing device will close the door from any position it was left in, and then perform like a normal door closer until the alarm is de-activated or the power restored.

All the DORMA free swing devices listed within this brochure are CERTIFIRE Approved and CE Marked to BS EN1155. As a free swing door closer operates with no opening resistance it is compliant with the requirements of ADM and BS8300*.

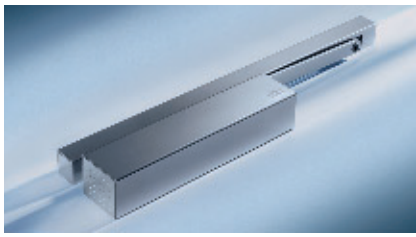
Electro-Magnetic Hold Open Door Closers

DORMA EMF Electro-Magnetic Hold Open Channel for use with DORMA Cam Action Closers

- Electro-magnetic hold open channel operating on 24V DC
- Can be used with TS93, TS92 or TS91 door closers
- Single selectable hold open point from 80° to 120°
- Adjustable hold open and manual release force
- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119

BS EN1155 Classification Number 3 8 3/5 1 1 3

The EMF Channel complies with the requirements of ADM and BS8300* in that it holds the door open.



TS93EMF in Contur Design

DORMA G96 EMF Electro-Magnetic Hold Open Channel for use with DORMA ITS96 Cam Action Closers

- Electro-magnetic hold open channel operating on 24V DC
- Can be used with ITS96 EN2-4 or EN3-6 door closers
- Single selectable hold open point from 80° to 120°
- Adjustable hold open and manual release force
- CERTIFIRE approved for 1 Hour on timber doors and 4 hours on metal doors CF140

BS EN1155 Classification Number 3 8 3/5 1 1 3

The EMF Channel complies with the requirements of ADM and BS8300* in that it holds the door open.

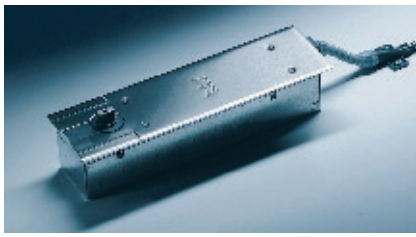
ITS96

DORMA BTS80 EMB Electro-Magnetic Hold Open Floor Spring

- Universal for single or double action doors
- Electro-magnetic multi-point hold open from 75° to 180° 24V DC
- Available in sizes EN4, EN5 and EN6
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF127

BS EN1155 Classification Number 3 8 4 1 1 4 (EN4)
BS EN1155 Classification Number 3 8 5 1 1 4 (EN5)
BS EN1155 Classification Number 3 8 6 1 1 4 (EN6)

The BTS80 EMB complies with the requirements of ADM and BS8300* in that it holds the door open during normal use.



BTS80 Stainless Steel or Polished Brass Cover Plate

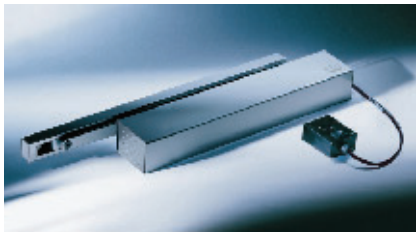
FREE SWING

DORMA TS99 EN4 Free Swing Closer

- Power size EN4
- Free swing function from 0° to 180°
- CERTIFIRE approved for 2 hours on timber doors and 4 hours on metal doors CF119

BS EN1155 Classification Number 4 8 4 1 1 3

The TS99 Door Closer complies with the requirements of ADM and BS8300* in that it enables the door to free swing, thus there is no opening resistance.



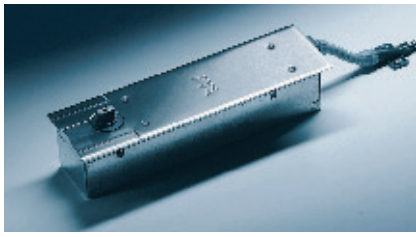
TS99 Free Swing Closer in Contur Design

DORMA BTS80 FLB Free Swing Floor Spring

- Single action doors only
- Free swing function from 0° to 180° 24V DC
- Available in sizes EN4, EN5 and EN6
- CERTIFIRE approved for 1 Hour on timber doors and 4 hours on metal doors CF127

BS EN1155 Classification Number 3 8 4 1 1 4 (EN4)
BS EN1155 Classification Number 3 8 5 1 1 4 (EN5)
BS EN1155 Classification Number 3 8 6 1 1 4 (EN6)

The DORMA BTS80 FLB complies with the requirements of ADM and BS8300* in that it enables the door to free swing, thus there is no opening resistance.



BTS80 Stainless Steel or Polished Brass Cover Plate

* Also Section 3 in Scotland & Part R in N. Ireland.

Panic Hardware

Panic hardware fitted to the final exit doors of a school has to combine the requirements for safety in allowing egress at any time and yet security, in preventing unauthorised entry into the school or unauthorised egress. Final exit doors are often misused as they can provide a 'shortcut' to the playground or other areas within the school; this often compromises security, especially if they do not lock correctly after use. Even an authorised user may experience difficulty in locking the doors correctly.

It is therefore critical that panic devices are capable of self locking correctly on every operation and the simplest way to ensure this is by using Pullman type latches. These latches operate on the same principle as a latch within a mortice lock. When the door closes they engage onto the strike plate fitted to the frame, thus avoiding the need to manually engage the panic device into its locked position after use. As a door closer should be used on such doors, operation is simple and easy in respect of the doors becoming secure after use; the door closer will close the door and the panic device will automatically lock. Anti-thrust devices on the Pullman Latches ensure they deadlock once engaged.

In addition to these standard safety and security features, further options are available. Operation by swipe card or other electronic device is also possible to gain authorised access or even egress. Electronic Bolt retraction (ES) automatically unlocks the device when electronic access devices are used. This means that no lever or knob is required externally, reducing the chances of vandalism or forced entry. Only a pull handle and cylinder (if required for manual override) is required externally. The DORMA AD4000 series of panic hardware are also available with alarms to inform staff immediately of any unauthorised use.

Some final exit doors may be required to be kept open at certain times of the day, such as break times, here Dogging devices can be operated which keep the latches withdrawn and allow access to all users from either side without having to operate the panic device or any external lever. Dogging is available as a standard feature if required. For additional security, Cylinder Dogging (CD) can be used.

The DORMA Panic Hardware devices listed within this brochure are all CE Marked to BS EN1125, panic exit devices operated by a horizontal bar.

AD4000 series panic hardware

AD4000 Touchbar

AD4300 Panic Latch

- Suitable for doors up to 1160mm wide
- Available in stainless steel, polished chrome or polished brass
- Deadlocking steel latchbolt
- Hex key dogging as standard
- Options:
  - Cylinder dogging (CD)
  - No dogging (LD)
  - Electronic bolt retraction (ES)
  - Monitor switch in touchbar (MS)
  - Battery alarm device with time limited alarm (BPAR)
  - Battery alarm device with continuous alarm (BPA)
  - Direct wired alarm (DWA)
  - Lever or knob operated external trim for use with Euro profile cylinder
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF279

BS EN1125 Classification Number 3 7 6 1 1 3 2 2 B

AD4400 Panic Bolt

- Suitable for doors up to 1160mm wide and 2440mm high
- Available in stainless steel, polished chrome or polished brass
- Deadlocking pullman latchbolts
- Hex key dogging as standard
- Options:
  - Cylinder dogging (CD)
  - No dogging (LD)
  - Electronic bolt retraction (ES)
  - Monitor switch in touchbar (MS)
  - Battery alarm device with time limited alarm (BPAR)
  - Battery alarm device with continuous alarm (BPA)
  - Direct wired alarm (DWA)
  - Extended top rods to suit door 3050mm high (ETR)
  - Lever or knob operated external trim for use with Euro profile cylinder
- CERTIFIRE approved for 1 hour for use with Euro profile cylinder on timber doors and 4 hours on metal doors CF279

BS EN1125 Classification Number 3 7 6 1 1 3 2 2 B

AD4100 Concealed Panic Bolt

- Suitable for doors up to 1160mm wide and 2440mm high
- Available in stainless steel, polished chrome or polished brass
- Deadlocking pullman latchbolts
- Hex key dogging as standard
- Concealed rods
- Options:
  - Cylinder dogging (CD)
  - No dogging (LD)
  - Electronic bolt retraction (ES)
  - Monitor switch in touchbar (MS)
  - Battery alarm device with time limited alarm (BPAR)
  - Battery alarm device with continuous alarm (BPA)
  - Direct wired alarm (DWA)
  - Extended top rods to suit door 3050mm high (ETR)
    Lever or knob operated external trim for use with Euro profile cylinder

BS EN1125 Classification Number 3 7 6 1 1 3 2 2 B

AD4000 series panic hardware

PHB3000 Touchbar

The PHB 3000 series is a modular touchbar Panic Hardware System which uses the same chassis for either a Panic Latch or Panic Bolt. The Panic Bolt application also allows the option of 2 or 3 point locking for added security. Panic Latches may be changed into Panic Bolts with the addition of the rods and latches or vice versa.

- Suitable for doors up to 1000mm and 1300mm wide
- Suitable for doors up to 2265mm and 3200mm high
- Available in silver, black and red
- Anti thrust latchbolts
- Optional dogging as standard
- Rods supplied with covers
- Options:
  - Lateral latches
  - Electric strike
  - Lever or knob operated PHT external trim for use with Euro profile cylinder
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF319

BS EN1125 Classification Number 3 7 6 1 1 4 2 2 B

PHA2000 crossbar

PHA2000 Crossbar

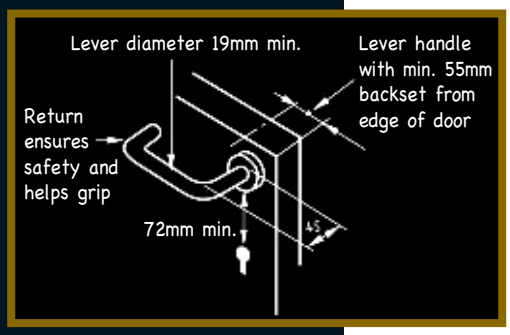
The PHA 2000 series is a modular crossbar Panic Hardware System which uses the same chassis for either a Panic Latch or Panic Bolt. The Panic Bolt application also allows the option of 2 or 3 point locking for added security. Panic Latches may be changed into Panic Bolts with the addition of the rods and latches or vice versa.

- Suitable for doors up to 1000mm and 1300mm wide
- Suitable for doors up to 2270mm and 3400mm high
- Available in stainless steel, silver and black
- Optional dogging as standard
- Rods supplied with covers
- Options:
  - Anti thrust latches
  - Lateral latches
  - Electric strike
  - Lever or knob operated PHT external trim for use with Euro profile cylinder
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors CF318

BS EN1125 Classification Number 3 7 6 1 1 4 2 2 A

LOCKS

Under ADM and BS8300*, locks are required to have a minimum backset of 55mm and centres of 72mm (distance from lever handle follower to key centre) to ensure ease of operation. The DORMA Locks detailed are all available with either 55mm or 60mm backsets and all have 72mm centres. In addition, locks should have a low engagement force to assist doorset compliance with ADM and BS8300*. Additional resistance from the latchbolt during closing can result in the door not closing fully, particularly as door closing forces are adjusted to their minimum in order to obtain low opening forces. Increasing the closing force to ensure the latchbolt engages correctly may well result in the opening force exceeding those required by ADM and BS8300*.



DORMA PREMIER LOCKS are all CERTIFIRE approved and CE marked to BS EN12209. Their grade 8 classification on the third digit donates a closing force of below 15N on doors up to 200kg in weight. Independent tests have shown the exact closing force to be 7N, thus ensuring that the door closer will be capable of engaging the latch easily. All lock cases have common dimensions allowing interchangeability of locks should the function of the door change at any time.

DORMA Premier Locks are prepared to take 'bolt through' lever furniture which is considered essential for school projects. The fixing holes for such furniture are sleeved to protect the mechanism from foreign elements such as sawdust etc. Where a latchbolt is used (Sashlock, Latch or Bathroom Lock) the follower is bronze bushed with a self adjusting clamp to ensure lever handle spindles are firmly fixed and 'rattle free'. BS EN12209 classified the cycle testing of DORMA Premier Locks as class H, 200,000 cycles with a 10N load on the latch.

* Also Section 3 in Scotland & Part R in N. Ireland.

DORMA 151F Sashlock

- Lever handle and key operation
- 55mm or 60mm backset
- 72mm centres prepared for Euro-profile cylinder
- 20mm stainless steel round or square forend
- Stainless steel square strikeplate
- Non-handed
- Bronze bushed and self adjusting 8mm clamped follower
- Nickel plated brass latchbolt and deadbolt with anti-drill steel rollers
- Nightlatch function as standard (latchbolt can be withdrawn by cylinder operation)
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN12209 Classification Number 3 H 8 1 0 G 2 B C 2 0

DORMA 115F Latch

- Lever handle operation
- 55mm or 60mm backset
- 72mm centres prepared for Euro-profile cyclinder
- 20mm stainless steel round forend
- Stainless steel square strikeplate
- Non-handed
- Bronze bushed and self adjusting 8mm clamped follower
- Nickel plated brass latchbolt
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN12209 Classification Number 3 H 8 1 0 G 2 B C 2 0

DORMA 116F Nightlatch

- Lever one side only. Retraction of latch with key only on the other side
- 55mm or 60mm backset
- 72mm centres prepared for Euro-profile cyclinder
- 20mm stainless steel round forend
- Stainless steel square strikeplate
- Non-handed
- Bronze bushed and self adjusting 8mm clamped follower
- Nickel plated brass latchbolt
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN12209 Classification Number 3 H 8 1 0 G 2 B C 2 0

DORMA 132F Deadlock

- Retraction of bolt with key only
- 55mm or 60mm backset
- 20mm stainless steel round or square forend
- Stainless steel square strikeplate
- Prepared for Euro-profile cylinder
- Non-handed
- Nickel plated brass deadbolt with anti-drill steel rollers
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN12209 Classification Number 3 H 8 1 0 G 2 B C 2 0

DORMA 191F WC Sashlock

- Lever operates latch both sides. Turn operates deadbolts one side only (emergency release on outside)
- 55mm or 60mm backset
- 78mm centres with 8mm follower for indicator and turn
- 20mm stainless steel round or square forend
- Stainless steel square strikeplate
- Non-handed
- Bronze bushed and self adjusting 8mm clamped follower
- Nickel plated brass latchbolt and deadbolt
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN12209 Classification Number 3 H 8 1 0 G 1 B C 2 0

Emergency Escape Locks

EMERGENCY ESCAPE LOCKS provide escape at anytime by the simple operation of the lever handle fitted to the lock. Although they must not be used on final exit doors within a school (panic hardware to BS EN1125 must be used here), they can be used on internal doors to provide extra security, yet allow escape in the event of an emergency.

A typical example would be a classroom door. An emergency escape lock can enable a teacher to lock the door to prevent any entry into the classroom yet operation of the lever handle from within the classroom, will unlock the door and allow exit. As such locks only operate with double cylinders (key both sides) it also prevents unauthorised locking of a door if a cylinder and turn are used as with a standard cylinder sashlock. When locked, escape is always possible from the inside by simply operating the lever, this will retract the deadbolt and latch in one operation.

The DORMA Escape Locks listed within this brochure are all CERTIFIRE Approved and CE Marked to BS EN179. All locks are required to have a minimum backset of 55mm under ADM and BS8300*, and centres (distance from lever handle follower to key centre) of 72mm to ensure ease of operation. The DORMA Escape Locks detailed are all available with either 55mm or 65mm backset and all have 72mm centres. All lock cases have common dimensions allowing interchangeability of locks should the function of the door

DORMA 181 Emergency Escape Lock

- Suitable for doors up to 1160mm wide
- Lever handle retracts latchbolt and deadbolt from inside
- Key retracts latchbolt and deadbolt from outside
- 55mm or 65mm backset
- 72mm centres prepared for Euro-profile cylinder
- 20mm stainless steel round forend
- Handed left or right hand
- Stainless steel square strikeplate
- Nickel plated steel latchbolt and deadbolt
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN179 Classification Number 3 7 6 1 1 3 4 2 A

DORMA 182 Emergency Escape Lock

- Suitable for doors up to 1160mm wide
- Lever handle retracts latchbolt and deadbolt from inside
- Lever retracts latchbolt from outside, deadbolt retracted by key
- 55mm or 65mm backset
- 72mm centres prepared for Euro-profile cylinder
- 20mm stainless steel round forend
- Handed left or right hand, inward or outward opening
- Stainless steel square strikeplate
- Nickel plated steel latchbolt and deadbolt
- CERTIFIRE approved for 1 hour on timber doors and 4 hours on metal doors (CF267)
- CERTIFIRE certification requires intumescent to be used on 1 hour timber doors, these packs are available from DORMA and ensure correct performance if subjected to fire. No intumescent is required for ½ hour timber doors or for metal doors.

BS EN179 Classification Number 3 7 6 1 1 3 4 2 A

* Also Section 3 in Scotland & Part R in N. Ireland.

Movable Walls - Giving you room to develop

With increasing demands for adaptable space management, particularity in educational establishments, movable walls offer the ideal solution as they enable large areas such as halls or performing spaces to be quickly converted into smaller, more practical learning resource areas or meeting rooms.

DORMA offer a number of systems including semi-automatic acoustic and fire-rated walls, folding walls, and concertina partitions.

Managing Space the Quick and Easy Way

MOVEO® is a unique system available from DORMA which offers an unprecedented lightweight, flexible and easy to operate movable wall solution with sound insulation.

Compared with conventional partitions, MOVEO offers a number of benefits:

	Conventional Partition	DORMA MOVEO
Weight/m² (standard design)	Approx. 40-45kg	Approx. 20kg
Standard method of ensuring top and bottom acoustic seals are in place	By hand (with crank)	Electrically controlled automatic extension and retraction (ComforTronic)
Relative time savings for opening and closing	-	50%
Method of construction	Heavy-duty steel/aluminium construction	Sealed lightweight composite construction
Smoke control	None, or subject to surcharge	Standard
Element thickness	80-160mm (depending on design)	100mm

Installation

The wall elements are fixed to a narrow track discretely hidden in the ceiling. These can be easily pushed into position due to their exceptional lightweight, and once in place, the sealing strips are automatically extended by the ComforTronic® control system to give an acoustic value of up to 55dB.

Installation into both existing and new buildings is simple and cost effective as less steel work is required for this movable wall system than compared with others. The lightweight panels mean that operation of the wall is quick and easy for all, irrespective of operator strength or skill.

Configuration

Available up to 4.5m high the flexibility of MOVEO means any configuration can be achieved; special elements can overcome curves, angles, right angles and slopes, and still incorporate pass doors and glazing elements.

Movable Walls

MOVEO system features:

- Lightweight construction – up to 50% lighter than conventional movable walls
- Panel thickness 100mm
- Clear passage up to 4500mm
- Sound insulation properties 37, 45 or 55dB
- Quick and simple operation. The ComforTronic control system automatically extends the sound insulation sealing strips meaning no need for any manual winding.
- Wide range of surface finishes
- Multiple configurations

Finishes

The various surface finishes are classified into 3 collections:

- Classic Collection: Particularly hard-wearing, scratch and impact-resistant surfaces in a variety of colours, wood reproduction or textured decor finishes.
- Functional Collection: Write-on or magnetic panel covers and special surfaces for overhead and daylight projector screens.
  Panel surfaces that are suitable for painting or wallpapering.
- Design Collection: Genuine wood veneers, metal decors and RAL-painted surfaces.

Movable Walls

Variplan

For installations that do not require a high level of sound insulation DORMA offers Variplan, a folding wall system that provides very quick and simple room division.

Providing the advantages of a fully fledged fixed wall, the concertina style wall can be moved into position in seconds, unfolding to create a completely new working area. Ideal for use in schools, colleges and offices, Variplan's double-skin construction provides a low level of sound insulation but will allow events to take place simultaneously in separate areas with little disturbance.

Available with a wide range of attractive surface finishes including wood veneers and polymer laminates, Variplan will blend it with its surroundings whether for a retro-fit or new build project.

Variplan System features:

- High stability with flush surface thanks to composite panel construction
- Flexible bottom seal protects against draughts
- Easy operation thanks to lever and spring mechanism
- Quiet action with plastic-tyred track rollers mounted in ball bearing
- Space saving stowage with interlinked panels folding together in a compact stack
- Ideal for retro fits

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