Kettering Library, Sheep Street, Kettering, NN16 0AY

Alterations to the Internal Timber Panelled/Glazed Screening to Introduce 2 No. Automated Doorsets, New Public Accessible Toilet and New Reception/Pay Point Facility


Kettering Library is a Grade II listed building which was listed on the 14th April 1976. The library is described by the British Listed Building website who obtains their information from English Heritage as;

“1904 by Goddard, Paget and Catlow in Arts and Crafts manner. Red brick, stone dressings, Collyweston slatted roof with 3 gables. 1 storey, projecting ends, slightly projecting centre with elliptically chamfered arched wide entrance up stone steps. Mullioned and transommed casement windows. Central lantern and cupola astride roof ridge”.

With regard to Planning Policy Statement 5; Planning for the historic environment and the North Northamptonshire Core Spatial Strategy Policy 13, General Sustainable Development Principles we would comment as follows:

With reference to the timber/glazed screening, we do not consider that the proposed works will have a detrimental impact on climate change, with timber for the new doorsets to be sourced from sustainable sources. The works will improve the accessibility and visibility of the site to allow the special historic and architectural features to be appreciated by future generations. Staff at the Library has advised that the front entrance doors facing onto Sheep Street were closed approximately 25 years ago, at which time the fixed glazed screen was installed in lieu of a revolving door. To comply with disabled access provisions the side access door was then used as the main entrance, as the introduction of a ramped access to the front main doors would have been both cost prohibited and the size and scale of the ramp would have had a negative impact on the architectural image of the library. It is proposed that the side access door would still be maintained upon completion of the proposed works and would be clearly signposted to ensure the library still legally complies with it’s obligations under the Disability Discrimination Act.

By taking a proactive approach to altering the internal timber screening to provide 2 No. automated doors, the library will be able to open up front entrance doors off Sheep Street which will have a positive influence on the character of the building and regenerate the appearance of the library. Access will flow directly to the new library reception desk/pay point (see later), which will provide a welcoming environment. Utilising the existing screening and archway above will firstly minimise waste and secondly allow the image of the screen to not drastically change. This development would not be detrimental to the historic environment of the building as the screening was only introduced in the 1980’s and shall be considered to be an enhancement by reopening an unused part of the building. The front entrance doors are a significant asset to the historic importance of the site and for them to again be used would be beneficial to the community.

With regards to the public accessible toilet, Kettering Library is not currently provided with an accessible disabled WC. The existing public toilet is located to the rear of the staff corridor which requires staff assistance to unlock the staff access doors which compromises building security. To overcome these issues it is proposed to remodel the existing female staff WC to provide an accessible disabled WC and baby changing facility (See Drawing 0047049-001A and 004C). The staff female WC will then be relocated to the existing public toilet location to provide improved access for wheelchair users. It is also proposed that the door between the adjacent corridor and the main library area will be removed (frame to remain) and the opening to the current staff female wc will be widened to accommodate a new 926mm wide timber oak veneer panelled doorset. Panelling of the doorset will match that to the door between the toilet corridor and public library area which is to be removed. We do not consider that these works will have a detrimental impact on the historic fabric of the library and will allow Northamptonshire County Council to meet their obligations under the Disability Discrimination Act.

Finally, to allow the new automated entrance doorsets to be introduced, the existing reception desk will need to be removed and a new pay point is to be constructed with a veneer finish to broadly match the existing timber panelling to the columns throughout the library. The new pay point will be located centrally within the library (see Demco Drawing 032806-model), providing direct line of sight to both the existing side entrance and the proposed entrance point off Sheep Street.
KETERING LIBRARY, SHEEP STREET, KETERING, NN16 0AY

LSH Job Ref: 0047049

Alterations to the Internal Timber Panelled/Glazed Screening to Introduce 2 No. Automated Doorsets, New Public Accessible Toilet and New Reception/Pay Point Facility


USE

The site accommodates Kettering Library, which is owned by Northamptonshire County Council, (NCC) and provides a service for leisure, information and learning for all persons who live, work and study in the area. Kettering Library is currently accessed by the public via a side entrance off a side access road leading to the former Tourist Information Office.

The proposal is to provide improved access to the Library by re-opening the existing front entrance off Sheep Street, creation of a new accessible public wc and introduction of a new pay point. The former works involve altering the existing timber/glazed partition screening which currently divides the vestibule from the main library and incorporation of 2 No. automated swing doors with associated ironmongery and automated door closers. These works will enable the front entrance doors and vestibule to again be used.

The proposed re-opening of the main entrance off Sheep Street will introduce an additional access point to the library, provide greater visibility for those persons passing along Sheep Street and create a more welcoming environment. It is proposed that the existing side entrance from the main library will also be retained to provide disabled access to the library to ensure that NCC meet their obligations under the Disability Discrimination Act.

It is also proposed to provide a new pay point/reception desk to the central area of the library replacing the current pay point desk located in front of the existing glazed partition, which would obstruct the proposed new automated doorsets.

The improvement works also include remodelling an existing staff female WC to provide a new public toilet suitable for disabled users and baby changing facilities.

AMOUNT

Alterations to the screening have been kept to a minimum by retaining the central section and high level arched glazed sections. The proposed doors will be designed to replicate the panels which are to be removed and other doors elsewhere within the library. New ironmongery is detailed upon drawing 0047049/008C. Please note that pull handles are specified in lieu of oval shaped door knobs (which are provided elsewhere in the library), as these would be unsuitable for a person with a hand dexterity impairment, as required by BS8300.

The proposed new pay point desk will be similar in size to the existing pay point desk, although located centrally within the library.

The layout of the proposed disabled WC will alter the existing female WC layout by removing the timber lightweight cubicle partitions. The female staff WC will be relocated to the existing public WC to the rear library corridor.

LAYOUT

The proposed new door will allow the main entrance off Sheep Street to be re-opened which will provide an additional entrance point into the library which will be co-ordinated with the relocation of the reception desk/pay point to a more central location within the library. The proposed new doorsets will be introduced in a layout which is similar to the original 1904 layout as per Appendix A, which will provide visitors with a direct line of sight to the pay point / reception desk. Improving access and the visibility of the library will improve the library’s usage as the entrance will now clearly be seen from the Sheep Street.
The disabled WC will be in the location where the existing staff female WC currently exists and will be accessed directly from the main public library. To provide the disabled WC with improved access, it is proposed to remove the timber door and door stops whilst retaining the frame to the existing opening between the WC corridor and the main public library area.

SCALE

The total size of the timber/glazed partition is approximately 8m² and the 2 No. end panels account for approximately 3m² of this area.

The pay point desk will cover an area of approximately 3m x 5m.

The disabled WC will be the same size as the existing Female Staff WC and the relocated Female Staff WC will be the same size as the existing public toilet to the rear of the library corridor.

LANDSCAPING

No alterations are proposed, although the ivy around the entrance doors will be but back where it has become rather overgrown.

APPEARANCE

The finish to the appearance of the new proposed door openings will remain similar to the appearance of the existing timber/glazed screening, as it is proposed to replicate the architectural design and materials currently used where possible. Within the vestibule there is also a timber double doorset used as a fire escape which will be maintained.

The finish to the desk will be designed to match the appearance of the timber cladding to the columns throughout the library and will also have some contrasting purple panels and a metal plinth to create a suitable contrast to assist the visually impaired.

ACCESS

It is hoped that the re-opening of the main entrance will encourage more people to use the library. Disabled access is to be maintained via the side entrance and will be clearly signposted from Sheep Street and the existing handrail leading up to the main entrance doors will be repaired and redecorated to assist those persons with a walking impairment.

The location of the new public accessible toilet will greatly improve accessibility and library staff will no longer be required to assist the public through the staff security door.
KETTERING LIBRARY, SHEEP STREET, KETTERING, NN16 0AY

Alterations to Timber Panelled/Glazed Screening to Incorporate 2 No. Automated Doorsets, New Public Accessible Toilet and New Reception/Pay Point Facility


Kettering Library is a Grade 2 Listed building constructed in 1904. The building’s construction consists of red brick, stone dressing, Collyweston slated roofs, mullion and transom casement windows, with stone steps leading up to a central wide entrance facing onto Sheep Street. Internally the walls are panelled in Austrian Oak and there is a pitch timber block parquet floor. Kettering Library achieved Grade 2 Listed status on the 14th April 1976.

It is proposed to re-open the main entrance to Kettering Library to supplement the existing side entrance doors, install a new pay point/reception desk to a central area of the library and remodel the existing female staff WC to provide a new public accessible toilet facility with baby changing facilities.

To re-open the main entrance, it is proposed to remove two sections of the fixed Oak timber panelled/glazed screen off the main entrance vestibule (dividing the entrance lobby from the main library) and introduce 2 No. timber automated single doors to both sides of the partition, leaving the fixed central panel and the arched glazing above in-situ. New doorsets will be fully automated, negating the requirement for pushpad buttons. See below photographs 1 & 2 which show the existing panelling.

Photograph 1: Library side of timber/glazed partition

Photograph 2: Entrance side of timber/glazed partition

Historically the front entrance vestibule has been altered on three previous occasions according to the historic layout plans, historic data and information provided by the local library staff. Firstly, when the library was originally opened there were 2 No. swing doors off the vestibule located centrally within a timber framed arched partition (See Appendix A). Access to the library was gained via the front entrance through the vestibule and the public entering the library would then enter the central hallway up to an octagonal reception desk, (since removed). In the 1930’s the swing doors and associated partition was removed and in their place a revolving door was installed which according to local staff was modelled on the revolving doors at the Ritz Hotel Paris (See Appendix B). During this period Kettering Library achieved its Listed status. The revolving door was then removed between 1984 to 1986 when the library was re-modelled to incorporate level access for disabled visitors via a side entrance and the main front entrance doors and entrance vestibule were shut and no longer used. At this stage in 1986 the timber screening was put in place (as evidenced by the photographs in Appendix C) and the main entrance doors and vestibule were only used as a fire escape. Library staff report that the removal of the revolving doors and closure of the front entrance was considered unpopular by local users and this view still remains today.

The Oak timber partition screen consists of recessed timber panelling within a timber framework at low level to all three sections with timber framed fixed glazed sections above and an arched glazed section over. It is proposed to replace the end panels and replace these with 2 No. automated timber doors consistent in design with the existing partition leaving the central panel and arched glazed panelling above in-situ providing structural stability to the design. The new doors will replicate the design of the
existing panels with the addition of contrasting automated overhead closers and new door ironmongery, as detailed on drawing 0047049/008C. 3M barriers will be provided directly in front of new doorsets for security purposes and will also act as safety barriers. The appearance of the new doors would match the existing emergency exit double doors to the side of the original entrance vestibule. The existing screening cannot be converted as the sections of the screen are of insufficient strength to act as doors and the glazing would not comply with current Building Regulations.

Forthcoming works to the parquet flooring (previously obtained Listed Building Consent) has enabled the library to plan a re-configuration of the layout to provide a more customer focused, welcoming and usable space. Currently, the front entrance doors off Sheep Street being permanently closed this can give the impression that the library is not open and does not create an inviting environment, particularly to those coming from the South of Sheep Street. The library staff propose to provide a new pay point/reception desk close to where the original octagonal delivery counter was positioned (See LSH Drawing 0047049, 011), which would be in the direct line of sight of both the existing side entrance and the proposed reopened front entrance (See Appendix A). Our proposals will put back in use the front doors as the building was originally designed. This will have a positive impact on the visibility of the library within the Cultural Quarter of Kettering. Bringing the original library entrance back into use has long been the desire of the local population, library users and non users alike and restoring this original feature can only bring long term benefits to the town by increased library usage.

On the basis of the above and the attached plans, we consider that we have demonstrated that incorporating 2 No. automated swing doors will not significantly affect the shared historic architectural values of the library as it will actually enable original areas such as the vestibule and front doors to be re-opened and once again be enjoyed by the general public.

As part of the improvement works, it is also proposed to incorporate a new pay point/reception desk to central area of the library replacing the existing facility located in front of the existing glazed partition (As per existing layout Drawing 0047049-013B). The desk will be located so that it is clearly visible from both entrances (See Drawing 011B). The pay-point desk will be constructed from a timber veneer to broadly match the timber panelling on the columns within the library. The desk will also have purple panels to the front to provide a visual contrast to assist the visually impaired.

It is also proposed to remodel the existing dilapidated female staff WC (See Drawing 0047049-001A) to create a public toilet with facilities suitable for disabled users and for baby changing (See Drawing 0047049-004C). The staff WC will be relocated to the existing public toilet to the rear of the library corridor. Currently there is no accessible toilet accommodation within the library which can cause difficulty to those using the library. The public currently have to use a toilet to the rear of the library administration areas which requires staff assistance to open a locked door to the corridor each time the facility is used. As part of the remodelling works, the timber doorset and door stops to the frame between the adjacent WC corridor and the main public library will be removed to improve access for disabled users, however the door frame will be retained. The doorway into the toilet facility will be widened to accommodate a 926mm doorset (See Drawing 004C), as required by current Building Regulations. The existing mechanical services will be used for the disabled WC. We do not consider that the proposed works will have a detrimental effect on the historic and architectural values of the library and it will allow more people to enjoy and access the library.
LIBRARY REMODELLING 1984-86
WORKS DURING THIRD PHASE

WEST ENTRANCE, REVOLVING DOOR
REMOVED, MARBLE FACINGS REMOVED
TO MAKE NEW ENTRANCE
ED 100LE
ED 250LE

Low energy swing door operators

DORMA
A leader in design and function

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, for example shopping or push chairs, heavy manual doors can be a barrier to access. With the ED 100LE / ED 250LE, DORMA has developed a Low Energy swing door operator designed to remove this barrier and provide easy and safe access for all users.

The unit offers a range of operating modes which enable the door to be opened under power when required and used as a conventional manual swing door at all other times. The ED 100LE / ED 250LE opens the door at precisely controlled speeds and forces assuring safety for all users.

In the majority of applications, the ED 100LE / ED 250LE does not require additional safety equipment. It is not only extremely safe but is substantially less expensive than traditional automatic swing door operators. The combination of low operating noise levels and the compact Contur design ensures the ED 100LE / ED 250LE will integrate into the most sensitive of environments.

With their ED 100LE / ED 250LE, DORMA offers electromechanical low energy swing door operators for various fields of application. Simply select the suitable version according to your prevailing door-leaf width and weight: While the ED 100LE is suitable for doors with a weight of up to 100 kg and a door width of up to 1,100 mm the ED 250LE is designed for doors with a width of up to 1,600 mm and a door weight of up to 250 kg. Both operators may be installed as push-version with standard arm and as pull-version with slide channel.

Benefits:

- Elegant visual appearance: DORMA Contur design provides an operator height of only 70mm.
- Low noise levels through multi-stage gearing.
- Efficient closing due to an electronic latching action enabling the motor to support the spring to overcome doors seals, room to room pressure differentials and wind loads.
- Optional additional safety: Compatible with IRS safety sensors where applications are for particularly vulnerable users.
- Optional integrated door co-ordinator to ensure the correct closing of rebated double doors.
- Suitable for 60 minute fire rated doors for both push and pull application.

DORMA and the Environment:

DORMA takes its responsibilities seriously to minimise impact on the environment in all aspects of its activities. This philosophy has remained a key driver throughout the development of the DORMA ED 100LE / ED 250LE.

- We have attached particular importance to using as little material as possible, and have managed to reduce by almost 40% the required material compared to our previous generation of low energy door operators. The low weight has a positive effect on the shipping of the goods and thus reduces unnecessary CO₂ emissions.
- Even the best operator will require replacement one day; however, we are even prepared for this time as all applied components are recyclable.
- The ED 100LE / ED 250LE along with all DORMA swing door operators provides sufficient force reserves. Even when the system is used to the maximum the operator will always try to open and close the door perfectly within the statutory limits. DORMA swing door operators contribute to avoiding the loss of heat thereby contributing towards reducing a building’s carbon footprint.
- Where required, IRS safety sensors consume significant amounts of power over a 24 hour period when mains power is not turned off – as is the case in the vast majority of buildings. The ED 100LE / ED 250LE offers an integrated ESM Energy Saving Mode function which allows the sensors to be switched to standby to minimise unnecessary power consumption which offers an energy saving of up to 30%.

- The DORMA ED 100LE / ED 250LE mainly closes via spring force. However, thanks to its direct drive, the motor automatically switches on to provide support when required. This assists the door to reach its closed position which assists on minimising energy loss.
### Required operating conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>–15° to +50° C</td>
</tr>
<tr>
<td>Only suitable for dry</td>
<td>Relative humidity max. 93 %</td>
</tr>
<tr>
<td>environments</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>230 V AC 50 Hz +/- 10 %</td>
</tr>
</tbody>
</table>

### General specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W x H x D)</td>
<td>700 x 70 x 130 mm</td>
</tr>
<tr>
<td>Min. distance between</td>
<td>1,450 mm</td>
</tr>
<tr>
<td>hinges (double-leaf systems)</td>
<td></td>
</tr>
<tr>
<td>Min. distance between</td>
<td>1,450 mm</td>
</tr>
<tr>
<td>hinges for ESR</td>
<td></td>
</tr>
<tr>
<td>(double-leaf systems)</td>
<td></td>
</tr>
<tr>
<td>Weight of single-leaf</td>
<td>12 kg</td>
</tr>
<tr>
<td>version</td>
<td></td>
</tr>
<tr>
<td>Power supply for external</td>
<td>24 V DC +/- 10 %, 1.5 A</td>
</tr>
<tr>
<td>accessories</td>
<td></td>
</tr>
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</table>

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening angle</td>
<td>Max. 110°</td>
</tr>
<tr>
<td>Latching action</td>
<td>Adjustable from 7° – 0°</td>
</tr>
<tr>
<td>Hold-open time</td>
<td>30 seconds</td>
</tr>
<tr>
<td>Hold-open time</td>
<td>Reversing/Door closer function</td>
</tr>
<tr>
<td>Blocking behaviour with</td>
<td></td>
</tr>
<tr>
<td>Night-/Bank Function</td>
<td></td>
</tr>
<tr>
<td>Locking feedback contact</td>
<td>Motor lock/Electric strike</td>
</tr>
<tr>
<td>Working point of wind load</td>
<td>Total load of max. 50 Nm</td>
</tr>
<tr>
<td>control</td>
<td></td>
</tr>
<tr>
<td>Voltage-independent braking</td>
<td>Adjusted via potentiometer</td>
</tr>
<tr>
<td>circuit</td>
<td></td>
</tr>
<tr>
<td>Electronic latching action</td>
<td>Force adjustable</td>
</tr>
<tr>
<td>pulse</td>
<td></td>
</tr>
</tbody>
</table>

### Integrated functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED status indicator</td>
<td>green – Operating voltage indicator</td>
</tr>
<tr>
<td></td>
<td>red – Malfunction</td>
</tr>
<tr>
<td></td>
<td>yellow – Service interval expired</td>
</tr>
<tr>
<td>Integrated program switch</td>
<td>OFF AUTOMATIC PERMANENT OPEN EXIT ONLY</td>
</tr>
<tr>
<td></td>
<td>(OPTIONAL – only for single-leaf systems)</td>
</tr>
<tr>
<td>User interface</td>
<td>Status indicator and parameterisation</td>
</tr>
<tr>
<td>with information display</td>
<td></td>
</tr>
<tr>
<td>Slot for DORMA Upgrade</td>
<td>Extension of functional range</td>
</tr>
<tr>
<td>Cards</td>
<td></td>
</tr>
<tr>
<td>Update interface</td>
<td>Firmware update</td>
</tr>
<tr>
<td>TMP – Temperature</td>
<td>Temperature-related overload protection</td>
</tr>
<tr>
<td>Management Program</td>
<td></td>
</tr>
<tr>
<td>IDC – Initial Drive Control</td>
<td>Driving phase optimisation</td>
</tr>
<tr>
<td>Cycle counter</td>
<td>0 – 1,000,000 (reasonably subdivided)</td>
</tr>
</tbody>
</table>

### Inputs, terminals max. 1.5 mm²

<table>
<thead>
<tr>
<th>Input/terminal</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential-free activator</td>
<td>Inside and outside</td>
</tr>
<tr>
<td>Energised activator</td>
<td>Max. 8 – 24 V AC/DC + 10%</td>
</tr>
<tr>
<td>Night-/Bank (key switch)</td>
<td>No contact</td>
</tr>
<tr>
<td>Safety sensor</td>
<td>Hinge side and opposite hinge side</td>
</tr>
<tr>
<td>Test signal for safety</td>
<td>Hinge side and opposite hinge side</td>
</tr>
<tr>
<td>sensor</td>
<td></td>
</tr>
<tr>
<td>Emergency-Off pushbutton/</td>
<td>No contact</td>
</tr>
<tr>
<td>Lock switch</td>
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</tr>
</tbody>
</table>

### Outputs, terminals max. 1.5 mm²

<table>
<thead>
<tr>
<th>Output/contact</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential-free door status</td>
<td>Door closed</td>
</tr>
<tr>
<td>contact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Door open</td>
</tr>
</tbody>
</table>

### ED 100LE

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption</td>
<td>120 Watts</td>
</tr>
<tr>
<td>Closing force EN 1154</td>
<td>EN 2–4, adjustable</td>
</tr>
<tr>
<td>Max. door-leaf weight</td>
<td>100 kg</td>
</tr>
<tr>
<td>for lintel depths</td>
<td></td>
</tr>
<tr>
<td>of up to 300 mm</td>
<td></td>
</tr>
<tr>
<td>Door-leaf width for single-leaf version</td>
<td>700–1,100 mm hinged</td>
</tr>
<tr>
<td></td>
<td>770–1,100 mm pivoted*</td>
</tr>
<tr>
<td>Door-leaf width</td>
<td>1,450–2,200 mm hinged</td>
</tr>
<tr>
<td>for double-leaf version</td>
<td>1,590–2,200 mm pivoted*</td>
</tr>
<tr>
<td>Max. opening speed</td>
<td>27° per second</td>
</tr>
<tr>
<td>Max. closing speed</td>
<td>27° per second</td>
</tr>
<tr>
<td>Axle extension</td>
<td>30 mm / 60 mm</td>
</tr>
<tr>
<td>Lintel depth for slide</td>
<td>+/- 30 mm</td>
</tr>
<tr>
<td>channel</td>
<td></td>
</tr>
<tr>
<td>Lintel depth for standard</td>
<td>0–300 mm</td>
</tr>
<tr>
<td>arm</td>
<td></td>
</tr>
<tr>
<td>* Based on 70 mm pivot centres.</td>
<td></td>
</tr>
</tbody>
</table>

### ED 250LE

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption</td>
<td>240 Watts</td>
</tr>
<tr>
<td>Closing force EN 4 – 6</td>
<td>EN 4–6, adjustable</td>
</tr>
<tr>
<td>Max. door-leaf weight</td>
<td>250 kg</td>
</tr>
<tr>
<td>for lintel depths</td>
<td></td>
</tr>
<tr>
<td>of up to 225 mm</td>
<td></td>
</tr>
<tr>
<td>Door-leaf width for single-leaf version</td>
<td>700–1,600 mm hinged</td>
</tr>
<tr>
<td></td>
<td>770–1,600 mm pivoted*</td>
</tr>
<tr>
<td>Door-leaf weight</td>
<td>1,450–3,200 mm hinged</td>
</tr>
<tr>
<td>for double-leaf version</td>
<td>1,590–3,200 mm pivoted*</td>
</tr>
<tr>
<td>Max. opening speed</td>
<td>27° per second</td>
</tr>
<tr>
<td>Max. closing speed</td>
<td>27° per second</td>
</tr>
<tr>
<td>Axle extension</td>
<td>30 mm / 60 mm</td>
</tr>
<tr>
<td>Lintel depth for standard</td>
<td>0–300 mm</td>
</tr>
<tr>
<td>arm</td>
<td></td>
</tr>
<tr>
<td>Lintel depth for slide</td>
<td>+/- 30 mm</td>
</tr>
<tr>
<td>channel</td>
<td></td>
</tr>
<tr>
<td>* Based on 70 mm pivot centres.</td>
<td></td>
</tr>
</tbody>
</table>
Drilling template: BASIC cover, pull-version, 12.5 mm drive arm pin

Drilling template: BASIC cover, push-version

Drilling template: CONTINUOUS cover, pull-version, 12.5 mm drive arm pin

Standard axle extension

Upper edge of door leaf

Center of operator axle

Upper edge of door leaf

Upper edge of door leaf

Bottom edge of lintel

Standard axle extension

Centre of operator axle

Centre of operator axle

Bottom edge of lintel

Standard axle extension

Cable entry on the left or on the right side.
DORMA ED 100LE
DORMA ED 250LE
Low energy swing
door operators

View: CONTINUOUS cover, push-version

Standard axle extension

View: BASIC cover, pull-version, 25 mm drive arm pin, pivoted door

Standard axle extension

View: BASIC cover, push-version, pivoted door

Standard axle extension
Drilling template: CONTINUOUS cover, push-version

Drilling template: BASIC cover, pull-version, 25 mm drive arm pin, pivoted door

Drilling template: BASIC cover, push-version, pivoted door

Standard axle extension
Cable entry on the left or on the right side.

Upper edge of door leaf

Bottom edge of lintel
DORMA ED 100LE
DORMA ED 250LE

Low energy swing door operators

View: CONTINUOUS cover, pull-version, 12.5 mm drive arm pin, pivoted door

Standard axle extension

View: CONTINUOUS cover, push-version, pivoted door

Standard axle extension

B min. 1590 (based on 70mm Pivot Centres)

Min. 1450 between Pivots
Drilling template: CONTINUOUS cover, pull-version, 12.5 mm drive arm pin, pivoted door

Standard axle extension
Cable entry on the left or on the right side.

Drilling template: CONTINUOUS cover, push-version, pivoted door

Standard axle extension
Cable entry on the left or on the right side.
System setup

The example system is equipped with all possible components. It is selected in accordance with the door-leaf width and the door-leaf weight.

1. Mains connection
2. Connection unit
3. Axle connection on both sides
4. Drive system (motor/gear/spring)
5. Adjustment of closing force
6. Control unit
7. Switching power supply unit
8. User interface with information display
9. Internal program switch
10. Slide channel (Set)*
11. Standard arm*
12. Complete cover*

* supplied separately

Arm

ED slide channel set – pull-version

The slide channel set is suitable for doors with a door-leaf width of 1,600 mm.

ED standard arm 225 – push-version

The maximum lintel depth amounts to +/- 30 mm.

The standard arm is suitable for lintel depths of up to 225 mm, admissible door-leaf width of 1,600 mm.

For lintel depths from 0 to 225 mm
Connections

1. Power supply
2. Emergency pushbutton, function: Emergency Off
3. Two-pole-and-earth socket
4. External PGS, mechanical
5. External PGS, electronic
6. Pushbutton, inside
7. Pushbutton, outside
8. Locking device
9. Radar motion detector, inside
10. Remote actuation
11. Key switch
12. ED 100LE / ED 250LE
13. ED 100LE / ED 250LE with continuous cover
14. RM-ED smoke detector
15. RM-N smoke detector, opposite hinge side
16. RM-N smoke detector, hinge side
17. Optional manual release pushbutton
OPTIONS

Program switches

**PG-D3**
- Program switch PG-D3
- 4-position, lockable, aluminium, white, flush-mounted version, Gira S-Color

**EPS-D**
- EPS-D full-electronic program switch
- In System 55 design, 4-position, lockable via code or additional TL-ST S55 key switch, membrane keypad, aluminium-coloured, white, flush-mounted version

**ESR – Integrated door coordinator**
- The ESR set is installed inside the double-leaf operator on site. It is available as an individual component and is easy to install. The system works similar to a drum brake and thereby ensures the proper functioning of the system. Its brake works on the motor shaft of the operator on the active door leaf and transfers the switching signal via a shaft.

Stainless steel push pads

**Push pads**
- With wheelchair logo
  - 150mm x 150mm
  - Flush/surface mounting versions available
- Wireless with wheelchair logo
  - 150mm x 150mm
  - Flush/surface mounting versions available

**Mullion switch**
- Mullion switch with wheelchair logo
  - 100mm x 45mm
  - For fitting on barrier
  - Flush/surface versions available
Safety barriers

**Framed ‘F’ type safety barriers**

B.S. 7036 – The British Standard which covers safety at automatic doors for pedestrian use states: If the door can be approached from the side a barrier should be installed to prevent users from walking into the path of the door during its opening cycle. DORMA offer the following range of barriers to ensure compliance.

- **Framed ‘F’ type with glass infill.** Silver painted aluminium frame. 10mm toughened glass infill.
- **Framed ‘F’ type with solid infill.** Silver painted aluminium frame. Silver painted aluminium sheet infill.

**Back edge protection**

**Pivotsafe and Hingesafe**

British Standard 7036 – the code of practice which covers safety at automatic doors for pedestrian use states: During the opening cycle of a swing door a potential finger trap is created by the construction, the position of the pivot point or by other features. Such hazards should be overcome by the installation of a device which either fills the finger trap or minimises the gap so as not to create a hazard. To ensure that installations carried out by DORMA meet the strictest safety standards we offer a range of options suitable for the majority of door types.

- **Pivotsafe for pivoted doors.** Aluminium. Available in anodised or RAL painted finishes. Suitable for conventional doors with pivot centres between 50mm and 75mm.
- **Hingesafe for hinged doors.** UVPC. Available in either white or brown.
DORMA infrared safety sensors are active infrared sensors and designed to detect all static and moving obstructions, either people or objects, within their detection range. On the opposite hinge side, the infrared safety sensor fulfils the function of an activator, which means that the sensor will institute the door to reverse and open as soon as an obstruction is detected in the course of a closing cycle. Then the hold-open times starts anew. On the hinge side, the infrared safety sensor will interrupt the automatic movement of the door whenever it detects an obstruction; the door closes on expiry of the adjusted hold-open time. DORMA infrared safety sensors are available in different lengths and may be supplied in the same colour as the operator.

### IRS-4 active infrared safety sensor

<table>
<thead>
<tr>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>black coloured</td>
<td>With one sensor, length: 330 mm</td>
</tr>
<tr>
<td>black coloured</td>
<td>With two sensors, length: 900 mm</td>
</tr>
</tbody>
</table>

### ESM Energy Saving Mode

The Energy Saving Mode is available when the IRS-4 is installed in combination with the ED 100LE / ED 250LE swing door operator. The sensors automatically switch to Stand-By Mode as soon as the program switch at the operator is adjusted to OFF.
Specifications

**Single**

- Drawing reference: 1154 between EN 2 – 4 (ED 100LE) / EN 4 - 6 (ED 250LE).
- Opening speed adjustable between 4 – 27 Degrees / Second.
- Hold open time adjustable between 0 and 30 seconds.
- 3 position mode switch (off, automatic, hold open).
- DORMA IRS 290 safety sensors with Powersave function fitted to opening side of door leaf (Option).
- ESM Energy Saving Mode. The IRS-4 sensors automatically switch to Stand-By Mode as soon as the program switch on the operator is switched to Off.
- DORMA IRS-4 safety sensors with Powersave function fitted to safe side of door leaf (Option).
- Standard push action drive arms (Option).
- Channel slide pull action drive arms (Option).
- Hard wired wall switch actuation (150mm x 150mm) satin stainless steel (Option).
- Wireless wall switch actuation (150mm x 150mm) satin stainless steel complete with radio control (Option).
- Hand held fob actuation complete with radio controlled receiver incorporated within operator housing (Option).
- Dorma ‘F’ type extruded aluminium framed safety barrier with toughened glass infill’s installed along the line of doors in the open position (Option).
- DORMA Pivotsafe anti finger trap device (Option).
- DORMA Hingesafe anti finger trap device (Option).
- Finish: Silver Anodised Aluminium (Option).
- Polyester powder coated to a standard RAL colour (Option).
- The installation shall comply fully with BS 7036. (The Code of Practice for Safety at Powered Doors for Pedestrian use).
- The manufacturer engineers shall carry out installation.
- The electrical contractor shall provide a 240-volt AC mains spur to the left-hand side of the opening above and on the same face that each drive unit is fitted. The spur must be switched and fused with a central flex outlet faceplate. A 10 amp residual circuit breaker at the main board and a 5-amp fuse at the spur shall protect the circuit.

**Pair**

- Drawing reference: 1154 between EN 2 – 4 (ED 100LE) / EN 4 - 6 (ED 250LE).
- Opening speed adjustable between 4 – 27 Degrees / Second.
- Hold open time adjustable between 0 and 30 seconds.
- 3 position mode switch (off, automatic, hold open).
- DORMA IRS 290 safety sensors with Powersave fitted to opening side of each door leaf (Option).
- ESM Energy Saving Mode. The IRS-4 sensors automatically switch to Stand-By Mode as soon as the program switch on the operator is switched to Off.
- DORMA IRS-4 safety sensors with Powersave fitted to safe side of each door leaf (Option).
- Standard push action drive arms (Option).
- Channel slide pull action drive arms (Option).
- Hard wired wall switch actuation (150mm x 150mm) satin stainless steel (Option).
- Wireless wall switch actuation (150mm x 150mm) satin stainless steel complete with radio control (Option).
- Hand held fob actuation complete with radio controlled receiver incorporated within operator housing (Option).
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- DORMA Pivotsafe anti finger trap device (Option).
- DORMA Hingesafe anti finger trap device (Option).
- Finish: Silver Anodised Aluminium (Option).
- Polyester powder coated to a standard RAL colour (Option).
- The installation shall comply fully with BS 7036. (The Code of Practice for Safety at Powered Doors for Pedestrian use).
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