

Panic & Emergency Exit Hardware Standards and Certification.

BS EN1125 Panic Exit Devices

It is desirable that doors at final exits in public buildings, places of entertainment, shops etc should be fitted with panic devices operated by a horizontal bar or touch bar. The emphasis for products covered by this standard is on safe exit rather than security.

Providing details on product types, classification by use, test cycles, door mass, corrosion resistance as well as definitions, product performance requirements, test apparatus, test methods and marking products.

The main purpose of the performance requirements of this standard is to give safe and effective escape through a doorway with minimum effort and without prior knowledge of the device i.e. for locked doors on escape routes where panic situations can be foreseen.

BS EN1125 applies to – Type A Push Bar Panic Bolts & Type B Touch Bar Panic Bolts.

BS EN1125 Classifies panic exit devices by using a 9 digit coding system, each digit referring to a particular feature of the product measured against the standards performance requirement.

- 1** **Digit 1 – Category of use**
Only one category is identified.
 - grade 3 - High frequency of use by public and others with little incentive to exercise care.
- 2** **Digit 2 – Durability**
Two categories are defined.
 - grade 6: 100,000 cycles
 - grade 7: 200,000 cycles
- 3** **Digit 3 – Test door mass**
Two categories are defined.
 - grade 5: Up to 100kg
 - grade 6: Up to 200kg
- 4** **Digit 4 – Fire resistance**
Two grades of fire resistance are identified:
 - grade 0: Not approved for use on fire/smoke door assemblies
 - grade 1: Suitable for use on fire/smoke door assemblies subject to satisfactory assessment of the contribution of the panic/emergency device to the fire resistance of specified fire/smoke door assemblies.
- 5** **Digit 5 – Safety**
All panic and emergency devices have a critical safety function therefore only the top grade 1 is identified.

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Digit 6 – Corrosion resistance

Two grades of corrosion resistance are identified according to EN1670.
- grade 3: High resistance
- grade 4: Very high resistance

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Digit 7 – Security

Only one category of security is identified grade 2.
Panic devices are primarily for the operation of a door from the inside.
Safety considerations will always be given over security.

8

Digit 8 – Projection of device

Two categories are defined.
- grade 1: projection up to 150mm (standard projection)
- grade 2: projection up to 100mm (low projection)

9

Digit 9 – Type of device

Two categories are defined.
- type A: push bar operation
- type B: touch bar operation

BS EN179 Emergency Exit Devices

This standard covers devices to be used in emergency situations where people are familiar with the emergency exit and its hardware and therefore a panic situation is most unlikely to develop. Lever handle operated escape locks or push pads may therefore be used.

BS EN179 applies to – Type A lever handle operated emergency device – Type B push pad operated emergency device.

BS EN179 Classifies emergency exit devices by using a 9 digit coding system, each digit referring to a particular feature of the product measured against the standards performance requirement.

The particular features in BS EN179 are identical to BS EN1125, with two differences affecting digit 7 - Security and digit 9 - type of device.

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Digit 7 – Security

Products covered by BS EN179 have 3 identified categories and have the opportunities of greater security than devices covered by BS EN1125. This is because BS EN179 devices are subject to testing with doors under greater pressure. Three categories are defined.
- grade 2: 1000N
- grade 3: 2000N
- grade 4: 3000N

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Digit 9 – Type of device

Two categories are defined.
- type A: lever handle operation
- type B: push pad operation

Fire Safety – BS EN1634 Part 1:2000

The European Fire Safety Standard for determining the fire resistance of door and shutter assemblies including hardware designed for installations within openings incorporated in vertical separating elements (doorsets).

Door controls can be accessed to be suitable for use on*:

- FD30 (30 minute) Fire Doors
- FD60 (60 minute) Fire Doors
- FD90 (90 minute) Fire Doors
- FD120 (120 minute) Fire Doors

* See Digit 4 BS.EN1154:1997

Fire Door Hardware Specification Issues

The UK Construction Products Regulations require Panic/Emergency Exit Hardware to be safe and durable.

European Standards BS EN1125/179 are the recognised way of demonstrating compliance and they require that an Official Notified Body proves both the product and the manufacturers factory production controls before CE Marking can be applied.

With effect from October 2003 European law recommends all relevant panic/emergency exit hardware be C.E. Marked when fitted to a fire door.

CE Marking

C.E. Marking is the easiest route to providing compliance with the latest UK Construction Products Regulations for hardware used on fire, smoke and escape route doors.

C.E. Marking indicates that the product has been 3rd party performance/fire tested where applicable and is produced in a factory which has satisfactory production control systems. All of these have to be assessed by an authorised certification organisation.

Other issues

A Grade 2 (low projection) panic device should be used in situations where there is restricted width for escape or where doors are not able to open beyond 90°.

Panic device push and touch bars should be installed to provide the maximum effective length but never less than 60% of the door leaf width.