BS EN 179 - Emergency Exit Devices

This standard covers devices to be used in emergency situations where people are familiar with the emergency exit and it's hardware and therefore a panic situation is most unlikely to develop. Devices operated by a lever handle or push pad may therefore be used.

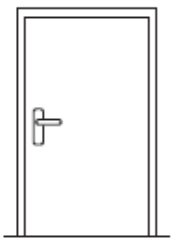
BS EN 1125 - Panic Exit Devices

Experience relating to escape from buildings and general safety have made it 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. The emphasis for products covered by this standard is on safe exit rather than security.

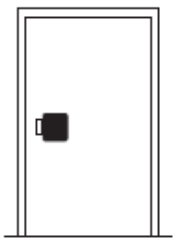
These standards provide details on product types, classification by use, test cycles, door mass, corrosion resistance, as well as definitions, product performance requirements, test apparatus, test methods and marking of products. In addition, the published standards include annexes illustrating the various points made through diagrams and supplementary text.

Scope - BS EN 179

The main purpose of the performance requirements of this standard is to give safe and effective escape through a doorway with one single operation to release the device. However, escape can require prior knowledge of the operation of the device which is consequently considered suitable for locked doors on escape routes only where panic situations are not foreseen.



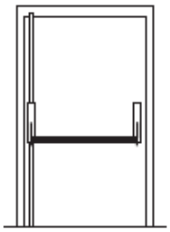
Type A: Emergency device lever handle



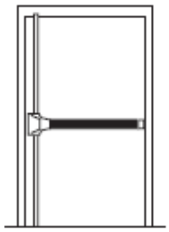
Type B: Emergency device push pad

Scope - BS EN 1125

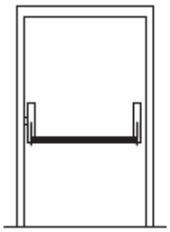
The main purpose of the performance requirements of this standard is to give safe and effective escape through a doorway with minimum effort and without prior knowledge of the device, i.e. for locked doors on escape routes where panic situations can be foreseen.



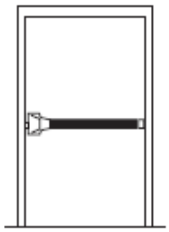
Type A: Panic bolt push bar



Type B: Panic bolt touch bar



Type A: Panic latch push bar

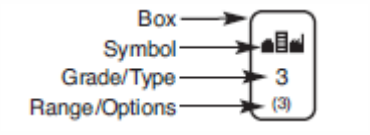


Type B: Panic latch touch bar

Classification

BS EN 1125 and BS EN 179 classify panic and emergency exit devices by using a 10 digit coding system. A similar classification applies to all building hardware product standards so that complementary items of hardware can be specified to, for instance, a common level of corrosion resistance, category of use, etc. Each digit refers to a particular feature of the product measured against the standard's performance requirements.

The DHF recommends the use of graphic icons to enhance clarity of information and has devised a system to facilitate assimilation of the various product classifications. Each feature within the product classification code is represented by an icon comprising four elements; Symbol, Grade/Type, Range/Options and Box:-



The icon above is for a product which meets Grade 3 in the category of use classification, where EN 1125 and EN 179 stipulate only grade 3.

Digit 1 - Category of use

Only one category is identified, that being

- Grade 3: High frequency of use by public and others with little incentive to exercise care.

Digit 2 - Number of test cycles

Two categories of durability are defined:

- grade 6: 100,000 cycles
- grade 7: 200,000 cycles

Digit 3 - Test door mass

Three categories of test door mass are identified:

- grade 5: up to 100 kg
- grade 6: up to 200 kg
- grade 7: over 200 kg

Digit 4 - Fire resistance

Three categories of fire door resistance are identified:

- grade 0: Not approved for use on fire/smoke door assemblies
- grade A: Suitable for use on smoke door assemblies, subject to satisfactory assessment of the contribution of the panic/emergency device to the smoke resistance of specified smoke door assemblies - grade B: 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.

Such assessments are outside the scope of this European standard (see EN 1634-1)

Digit 5 - Safety

All panic and emergency devices have a critical safety function therefore only the top grade - 1 - is identified.

Digit 6 - Corrosion resistance

Two grades of corrosion resistance are identified according to EN 1670:

- grade 3: high resistance (96 salt spray hours)
- grade 4: very high resistance (240 salt spray hours)

Digit 7 - Security

Products covered by BS EN 179 have 4 identified categories and generally have the opportunity of greater security against forced opening than devices covered by BS EN 1125.

BS EN 179

- grade 2: 1 000 N
- grade 3: 2 000 N
- grade 4: 3 000 N
- grade 5: 5 000 N

BS EN 1125

Only one category of security is identified:

- grade 2: 1000 N panic devices are primarily for the operation of a door from the inside. Safety considerations will always be given priority over security.

Digit 8 - Projection of device

Two grades are identified relating to the projection of the device from the door face:

- grade 1: projection up to 150 mm (large projection)
- grade 2: projection up to 100 mm (standard projection)

Digit 9 - Type of device

Two categories are identified for each standard:

BS EN 179

- type A: emergency device with lever handle operation
- type B: emergency device with push or pull pad operation
- type A: panic device with push bar operation
- type B: panic device with touch bar operation

Digit 10 - Field of application

EN179
A: Outward opening - Single & double exit doors, active & inactive leaf
B: Outward opening - Single exit door only
C: Outward opening - Double exit door, inactive door
D: Inward opening - Single exit only

EN1125
A: Outward opening - Single & double exit doors; active & inactive leaf
B: Outward opening - Single exit door only
C: Outward opening - Double exit door; inactive door

Example

The following marking denotes a panic exit device tested to 200,000 operations for a door mass up to 200 kg, suitable for fire door use with very high corrosion resistance with standard bar projection for use on single & double doors.