# 7 Classification and designation

## 7.1 General

For the purpose of this European Standard, an exit system shall be classified according to the 11 characters classification described in 7.2.

The classification reflects the ability of the exit system to achieve described performances. The actual configuration set up during installation shall be the purpose of the installation compliance report described in Table A3 of Annex A.

## 7.2 Classification system

### 7.2.1 General

The classification system of an exit system shall include the following 11 characters.

### 7.2.2 Category of use (1st character)

Only one grade of use shall be used:

— **Grade 3**: high frequency of use where there is little incentive to exercise care, i.e. where there is a chance of an accident occurring and misuse

### 7.2.3 Durability (2nd character)

The durability of the exit system shall be classified as one of the following four categories:

— **Grade 6**: 100 000 test cycles;

— **Grade 7**: 200 000 test cycles;

— **Grade 8**: 500 000 test cycles;

— **Grade 9**: 1 000 000 test cycles. See 4.6.

### 7.2.4 Door mass (3rd character)

Nine grades of door mass and closing force are identified.

### Table 40 — Door mass and Closing Force

| Grade | Door mass | Closing force |
|---|---|---|
| Grade 1 | up to 100 kg door mass | 50 N maximum closing force |
| Grade 2 | up to 200 kg door mass | 50 N maximum closing force |
| Grade 3 | above 200 kg door mass or as specified by the manufacturer | 50 N maximum closing force |
| Grade 4 | up to 100 kg door mass | 25 N maximum closing force |
| Grade 5 | up to 200 kg door mass | 25 N maximum closing force |
| Grade 6 | above 200 kg door mass or as specified by the manufacturer | 25 N maximum closing force |
| Grade 7 | up to 100 kg door mass | 15 N maximum closing force |
| Grade 8 | up to 200 kg door mass | 15 N maximum closing force |
| Grade 9 | above 200 kg door mass or as specified by the manufacturer | 15 N maximum closing force |

### 7.2.5 Suitability for use on fire/smoke doors (4th character)

The suitability of the emergency exit system for use on fire/smoke doors shall be classified as one of the following three grades:

— **Grade 0**: not approved for use on fire/smoke door assemblies;

— **Grade A**: suitable for use on smoke door assemblies based on a test in accordance with EN 1634-3;

— **Grade B**: suitable for use on smoke and fire door assemblies based on a test in accordance with EN 1634-1 or EN 1634-2.

### 7.2.6 Safety (5th character)

Only one grade of safety shall be used:

— **Grade 1**: all exit systems have a critical safety function, therefore only the top grade is identified for the purpose of this European Standard.

### 7.2.7 Corrosion resistance, humidity and IP protection (6th character)

Requirements according to where the electrically controlled exit systems are installed they shall be classified a one of the following three grades:

— **Grade 0** = indoor zone

— **Grade 1** = indoor zone where condensation may occur

— **Grade 2** = outdoor zone

### Table 41 — Detail of grades for Corrosion resistance, humidity and IP protection (6th character)

| **Requirement** | | **Test methods-procedures** | **Grades** | | |
|---|---|---|---|---|---|
| | | | 0 | 1 | 2 |
| 4.6.6 | Environmental requirements - Corrosion resistance requirement (Durability of ability to release) to EN 1670 | 5.6.6 | Grade 0 EN 1670 | Grade 1 EN 1670 | Grade 3 EN 1670 |
| 4.6.9 | Environmental requirements - Damp heat cyclic (12h + 12h) resistance requirement (Durability of ability to release) | 5.6.9 | no | yes | yes |
| 4.6.14 | Environmental requirements – IP Protection against solid foreign objects and ingress of water and dust (Durability of ability to release) | 5.6.14 | IP 30 | IP 32 | IP 44 |

### 7.2.8 Security/Holding force – from outside (7th character)

The security/holding force of the exit system shall be classified as one of the following five grades:

This concerns electrical locking element and electrically lockable operating element, and combination of electrical locking element and mechanical exit device

- **Grade 2**: 1 000 N**;**
- **Grade 3**: 2 000 N;
- **Grade 4**: 3 000 N;
- **Grade 5**: 5 000 N;
- **Grade 6**: > 5000 N to be defined in product information.

See 4.2.20.1

### 7.2.9 Security/Holding force – from inside (8th character)

The security/holding force from inside of the exit system shall be classified as one of the following six grades:

This concerns electrical locking element and electrically lockable operating element

- **Grade 1**: 500 N
- **Grade 2**: 1000 N;
- **Grade 3**: 2000 N;
- **Grade 4**: 3000 N;
- **Grade 5**: 5000 N;
- **Grade 6**: > 5000 N to be defined in product information.

See 4.2.20.2

### 7.2.10 Time delay (9th character)

The time delay of the exit system shall be classified as one of the following three grades:

- **Grade 0**: No time delay;

— **Grade 1**: Single time delay

— t1 = 15 s maximum; — **Grade 2**: Double time delay

— t1 = 15 s maximum;

— t2 = 180 s maximum. See 4.2.17.

### 7.2.11 Denied exit mode (10th character)

The denied exit mode of the exit system shall be classified as one of the following two grades:

— **Grade 0**: no denied exit (safe at all times);

— **Grade 1**: denied exit available (safe during defined time zone).

NOTE Grade 1 is only available when associated to a Central Management Control (CMC).

See 4.2.18.2.4.

### 7.2.12 Configuration (11th character)

The configuration of the exit system shall be classified as one of the following five categories:

— **Category A** - Initiating element being integrated in and activated by a horizontal bar in accordance with EN 1125.

— **Category B** - Initiation element being installed outside the door leaf as part of an exit system which is functionally not linked to an exit device.

— **Category C** - Initiating element being integrated in and activated by a dummy bar or a dummy handle that is not an operating element.

— **Category D** - Other exit system not being included in any of the above mentioned categories. See 4.2.1 and Annex F.

## 7.3 Example of classification

The classification of the exit system shall be presented as per the following example:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3** | **7** | **2** | **B** | **1** | **1** | **4** | **5** | **1** | **1** | **A** |

This denotes an electrically controlled exit system tested for 200 000 cycles, suitable for use on fire/smoke door assemblies, up to 200 kg door mass, 50 N maximum closing force.

IP32 suitable for use in indoor zone where condensation may occur, with a security holding force from outside of 3 000 N, with a security holding force from inside of 5 000 N, with 15 s maximum single time delay, with a denied exit mode, Initiating element being integrated in and activated by a horizontal bar in accordance with EN 1125 (category A).