

Requirement Specification

Document	Edition	Name	Section
SSF 1095	Edition 1 April 2015	Electromechanical striking plates for fixed mounted locks – Burglar resistance – Requirements and test methods	5.6, 5.8.2, and 6.8.2

Interpretation/Application

Interpretation and application of requirements in this document are related to the following sections:

Contents

- 5.6 Manipulation, Table 1 Approved 20-12-11
- 5.8.2 Control signal - requirements Approved 17-12-19
- 6.8.2 Control signal - testing Approved 17-12-19

Background

- In Table 1 under section 5.6 Manipulation, requirement 5.6.3 Manipulation of cabling and requirement 5.6.4 Manipulation with electromagnetism have been supplemented with reference standards and applicable level (level) for the test.
- The Norm should only be product-related without any installation requirements. The installation requirements should be presented in SSF 210 or SSF 200.
- Requirements on encryption for signal transmission in cables are removed on Class 1 and Class 2.

Changes in section 5.6, Table 1 - Requirements for electric striking plates.

Existing Table 1: (Only the changed sections in Table 1 are reported).

Table 1 – Requirements for electric striking plates.

Requirements for performance level of electric striking plates for inclusion in SSF 3522 burglar-resistant locks								
Requirement	unit	Level 1A	Level 1B	Level 2A	Level 2B	Level 3	Level 4	Level 5
5.6.3 Manipulation of cabling	Minutes	not applicable	not applicable	10	10	10	15	20
	Attack side			Outside of door	Outside of door	Outside of door	Inside and outside	Inside and outside
5.6.4 Manipulation with electromagnetism	Minutes	not applicable	not applicable	10	10	10	15	20
	Attack side			Outside of door	Outside of door	Outside of door	Inside and outside	Inside and outside

Application and modification of the above:

Table 1 – Requirements for electric striking plates.

Requirements for performance level of electric striking plates for inclusion in SSF 3522 burglar-resistant locks								
Requirement	unit	Level 1A	Level 1B	Level 2A	Level 2B	Level 3	Level 4	Level 5
5.6.3 Manipulation of cabling	Minutes	not applicable	not applicable	10	10	10	15	20
	EN 61000-4-4 EN 61000-4-5			Level 4	Level 4	Level 4	Level 4	Level 4
	Attack side			Outside of door	Outside of door	Outside of door	Inside and outside	Inside and outside
5.6.4 Manipulation with electro-magnetism	Minutes	not applicable	not applicable	10	10	10	15	20
	EN 61000-4-3			Level 4	Level 4	Level 4	Level 4	Level 4
	Attack side			Outside of door	Outside of door	Outside of door	Inside and outside	Inside and outside

Note: For undated references, the latest edition of the document (including all additions) applies. See section 3 of SSF 1095.

Changes in section 5.8.2**Existing text:****5.8.2 Control signal**

Signals from an operating unit which are transmitted via cable (A), (B) or (C) to the electric striking plate shall consist of encrypted messages of a cryptographic key length as shown in Table 1 in a replay-proof session or be installed in a protected environment for level 1, level 2 and level 3.

If wireless transmission takes place between a code carrier and a code reader (A) and/or between a code reader and a control unit (B), as well as a control unit and the electric latch/activator (C), it shall not be possible to read this signal/code in a sphere with a radius greater than 50 cm from the reader unit. If such reading can take place, the code/signal shall be encrypted.

For level 2A, 2B, no coded signal is necessary if signal transfer between the units is installed in a protected environment.

For level 1A, 1B, no coded signal is necessary for signals transmitted using unprotected cabling on the inside of the door.

Protected environment:

- *Equipment which is located on the inside door leaf and cannot be accessed thanks to an arrangement that cannot be removed using standard tools.*
- *Equipment that is recessed in a door or frame and that cannot be accessed when the door is closed.*

Other components and installation are regarded as unprotected.

Decoding shall take place in the electric striking plate.

Mutual authentication is required for classes 4 and 5.

Control signal checking shall take place as specified in 6.8.2.

Application and modification of the above:**5.8.2 Control signal**

Signals from control unit sent via cable (A), (B) or (C) to the electrical end plate in class 3, 4 and 5 shall consist of encrypted messages with cryptographic key according to table 1 in a replay-safe session. See Figure 2

For levels 1A, 1B, 2A and 2B, coded signal is not necessary.

If wireless transmission takes place between code carrier and code reader (A) and / or between code reader and control unit (B) and control unit and electrical interlock / activator (C), this signal / code must not be readable in a sphere with a radius greater

than 50 cm from the center on the reader. If such a reading can take place, the code / signal must be encrypted.

Decoding must take place in the electrical end plate.

In classes 4 and 5, mutual authentication is required.

Control of the control signal shall take place in accordance with 6.8.2.

Changes in Table 1 (SSF 1095 page 17)

Existing Table 1: (Only the changed sections in Table 1 are reported).

Table 1 – Requirements for electric striking plates.

Requirements for performance level of electric striking plates for inclusion in SSF 3522 burglar-resistant locks								
Requirement	Unit	Level 1A	Level 1B	Level 2A	Level 2B	Level 3	Level 4	Level 5
5.8.2 Control signal (cryptographic key length))	Number of bits	48	48	48	48	48	50	100

Application and modification of the above:

Table 1 – Requirements for electric striking plates.

Requirements for performance level of electric striking plates for inclusion in SSF 3522 burglar-resistant locks								
Requirement	Unit	Level 1A	Level 1B	Level 2A	Level 2B	Level 3	Level 4	Level 5
5.8.2 Control signal (cryptographic key length))	Number of bits	Optional	Optional	Optional	Optional	48	50	100

Note. All other requirements, 5.2.1 to 5.8.10 in Table 1 (page 17), are unchanged

Changes in section 6.8.2

Existing text:

6.8.2 Control signal

The electric striking plate with devices and all obstructions active is mounted in a wooden fixture (Figure 6) in accordance with the manufacturer's installation documentation.

Assessment of which equipment is in a protected environment.

Assessment is carried out to see whether the code can be read visually.

Attempts at reading shall take place using a reading instrument appropriate for the code transmission method at a distance of one cm from the regular reception point. The distance describes a sphere with a radius $a \geq 50$ cm. If no reading that can be traced to the code transmission is recorded when the signal is sent, the requirement is met. If reading can take place, the manufacturer's technical documentation shall verify the encryption and communication method.

There is no requirement for the test laboratory to be capable of recreating the correct electrical code.

The manufacturer shall describe to the test laboratory the technology used for code transmission so that this provides guidance for the tester if reading needs to take place, and if so which instruments/methods are to be used.

Checking via the manufacturer's specification of coding of the control signal and the signals. For wireless transmission of signals, testing shall take place on a dummy, with testing carried out according to SS-EN 50131-5-3.

Requirements as specified in 5.8.2 are checked against the manufacturer's specification.

Application and modification of the above:

6.8.2 Control signal

The electric striking plate with devices and all obstructions active is mounted in a wooden fixture (Figure 6) in accordance with the manufacturer's installation documentation.

Assessment is carried out to see whether the code can be read visually.

Attempts at reading shall take place using a reading instrument appropriate for the code transmission method at a distance of one cm from the regular reception point. The distance describes a sphere with a radius $a \geq 50$ cm. If no reading that can be traced to the code transmission is recorded when the signal is sent, the requirement is met. If reading can take place, the manufacturer's technical documentation shall verify the encryption and communication method.

There is no requirement for the test laboratory to be capable of recreating the correct electrical code.

The manufacturer shall describe to the test laboratory the technology used for code transmission so that this provides guidance for the tester if reading needs to take place, and if so which instruments/methods are to be used.

Checking via the manufacturer's specification of coding of the control signal and the signals. For wireless transmission of signals, testing shall take place on a dummy, with testing carried out according to SS-EN 50131-5-3.

Requirements as specified in 5.8.2 are checked against the manufacturer's specification.