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EU-TYPE EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.
identification number Notified Body 0400,
commissioned by Decree no. 2022-0000107366

Certificate no. : NL10-400-1002-125-01 Revision no.: 5

Description of the product : Landing door locking device for manually operated swing doors with a possibility to be used in potentially explosive atmospheres

Trademark : Prudhomme S.a.

Type no. : SPX4 & SPX4/EX

Name and address of the manufacturer : Prudhomme S.a.
38 rue Charles de Gaulle
94140 Alfortville, France

Name and address of the certificate holder : Prudhomme S.a.
38 rue Charles de Gaulle
94140 Alfortville, France

Certificate issued on the following requirements : Lifts Directive 2014/33/EU

Certificate based on the following standard : Parts of: EN 81-1/2:1998 + A3:2009,
EN 81-20:2020, EN 81-50:2020

Test laboratory : None

Date and number of the laboratory report : None

Date of EU-type examination : January 2023

Additional document with this certificate : Report belonging to the EU-type examination certificate no.: NL10-400-1002-125-01 Rev.5

Additional remarks : Max. rated voltage: 230 VAC 230VDC
Max. rated current: 2.0 A 0.25A
Furthermore, see chapter 5 of the report belonging to this EU-type examination certificate
This revision replaces certificate NL10-400-1002-125-01 rev.4 of 01-08-2022

Conclusion : The safety component meets the requirements of the Lifts Directive 2014/33/EU taking into account any additional remarks mentioned above.

Certification decision by

W.G. Kasteleijn
Product Manager Certification

Amsterdam

Date : 16-01-2023

Valid until : 16-01-2028



Report EU-type examination

Report belonging to EU-type examination certificate number	: NL10-400-1002-125-01
Date of issue of original certificate	: March 5, 2010
Certificate applies to	: Safety component
Revision number / date	: 5 / January 16, 2023
Requirements	: Lifts Directive 2014/33/EU Standards: EN81-1:1998 + A3:2009, EN81-20:2020, EN81-50:2020
Project number	: P220386

1. General specifications

Description of the product	: Door locking device for swing doors with a possibility to be used in potentially explosive atmospheres
Trademark	: Prudhomme S.a.
Type no.	: SPX4 & SPX4/EX
Name and address of the manufacturer	: Prudhomme S.a. 38 rue Charles de Gaulle 94140 Alfortville, France
Laboratory	: None
Address of examined Component	: Liftinstituut, Amsterdam, The Netherlands
Date of examination	: January 2023
Examination performed by	: M. Issa

2. Description safety component

The SPX4 locking device is equipped with a lateral lever, SPX4/L, or a perpendicular lever, SPX4/P. There are 5 different versions: SPX4-O, SPX4-T, SPX4-K, SPX4-S and SPX4/+6. The indication D or G is used to indicate the right or left version. The used version depends on the locking device it replaces.



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The door locking device consists of two parts, the locking housing and the receiving contact. Inside the housing, a checking pin is provided to check if the landing door is properly closed. If the pin gets stuck the door lock contact won't close.

The locking takes place by a pin in a hole in the side of the landing door. The housing of the lock is made from die-cast. The top side is fitted with a clear cover so contacts and locking components can be inspected without removing any covers. Also is it possible to open the lock by means of a triangular key according annex B of the EN 81-1/2 and Fig. 13 of EN81-20. The lock shall be used for hinged landing doors. The contacts can be used up to 230 V AC and 2.0 A AC only.

The locking pin can both be with an inclined part or without. The version with a straight pin is especially for the lowest landing door which gives access to the well pit. Due to using the locking pin without chamfer, in case of the bottom landing door has been manually opened by using the unlocking key, the door will not be self-locking.

The SPX4/EX locking device is equipped with a lateral lever, SPX4/EX/L or LK, or a perpendicular lever, SPX4/EX/P1 or P2. The door locking device consists of two parts, the locking housing and the receiving contact. Inside the housing a checking pin is provided to check if the landing door is properly closed. If the pin gets stuck the door lock contact won't close.

The locking takes place by a pin in a hole in the side of the landing door. The housing of the lock is made from die-cast. The top side is fitted with a clear cover so locking components can be inspected without removing any covers. Also is it possible to open the lock by means of a triangular key according annex B of the EN 81-1/2 and Fig. 13 of EN81-20. The lock shall be used for hinged landing doors. The contacts can be used up to 230 VAC and 2.0 A or 120VDC and 0.25 A. The locking pin is with an inclined part.

See annex 1 for a general overview of the product

3. Examinations and tests

The examination covered a check whether compliance with the Lift Directive 2014/33/EU is met, based on the harmonized product standards EN81-1/2:1998 + A3:2009, EN81-20:2020 and EN81-50:2020.

The examination included:

- Examination of the technical file (See annex 2):
- Examination of the representative model in order to establish conformity with the technical file.
- Inspections and tests to check compliance with the requirements.

The tests performed are as stated in annex F1 of the EN81-1/2 and clause 5.2 of EN81-50.

3.1 Mechanical tests SPX4



Endurance test

According F.1.2.2.1.1 of EN81-1/2 and clause 5.2.2.2.2 of EN81-50 an endurance test must be made. For this test a special testing apparatus was designed. With 60.0 rpm the actuator rod was driven. A mechanical counter was installed to keep track of the number of complete cycles.

Test details #1

Start date / time February 8th, 2010 / 13:30
End date / time March 5th, 2010 / 16:00
Number of cycles 1.000.000

Resistive circuit

Test voltage 230 V
Test current 4.0 A

Test result: OK

Test details #2 for SPX4/+6

Start date / time August 30th, 2012 / 14:00
End date / time September 13th, 2012 / 07:50
Number of cycles 1.000.000

Test result: OK

Static test #1

To perform the static test, a test weight of 102 kg was connected via a steel wire to the locking device in the opening direction. Test performed with Liftinstituut present.

Test details

Test date September 21th, 2016
Test weight 1000N

Test result: OK

Static test #1

To perform the static test, a weight was linked to the locking pin.

Test details

Test date March 5th, 2010
Test weight 3000N

Test result: OK

Static test #2 for SPX4/+6

To perform the static test, a force was exercised on the locking pin by use of a hydraulic press.



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Test details

Test date September 13th, 2012
Test force 3000N

Test result: OK

Dynamic test #1

To perform the dynamic test, a block was dropped on the locking pin. The dropping distance was 50 cm.

Test details

Test date March 5th, 2010
Test weight 4 kg
Dropping distance 50 cm

Test result: OK

Dynamic test #2 for SPX4/+6

To perform the dynamic test, a block was dropped on the locking pin. The dropping distance was 50 cm.

Test details

Test date September 13th, 2012
Test weight 4 kg
Dropping distance 50 cm

Test result: OK

3.2 Electrical tests SPX4

The electrical features of SPX4/+6 have not been tested because it is similar to the already tested versions.

For endurance test, see 3.1 Mechanical tests.

Test result: OK

Test of ability to break circuit

In accordance with EN 60947-5-1, an circuit was made with a resistor and choke in series.

Test details

Test date March 5th, 2010
Circuit
Test voltage 253 Vac
Test current 22.1 A
Cos φ 0,7 = 45°

Test result: OK



Test for resistance of leakage currents

This test is not performed but based on the values from prior tests made by the manufacturers supplier, these values go beyond the requirements of the EN81-1/2 and EN81-20/50. The CTI value for Lexan 500 (10 % glass fibre) is 175V. The minimum value requested according to the mentioned standards is 175V. Also different literature confirm these values.

3.3 Mechanical tests SPX4/EX

Endurance test

According to F.1.2.2.1.1 of EN81-1/2 and clause 5.2.2.2.2 of EN81-50, an endurance test must be made. For this test, a special testing apparatus was designed. With 60.0 rpm the actuator rod was driven. A mechanical counter was installed to keep track of the number of complete cycles.

Test details

Start date / time June 09th, 2011 / 14:30
End date / time June 23th, 2011 / 08:00
Number of cycles 1.000.000

Resistive circuit

Test voltage 230 V
Test current 4.0 A

Test result: OK

Static test

To perform the static test, a force, by a hydraulic press, was applied to the locking pin.

Test details

Test date June 23th, 2011
Test weight 3000N

Test result: OK

Dynamic test

To perform the dynamic test, a block was dropped on the locking pin. The dropping distance was 50 cm.

Test details

Test date June 23th, 2011
Test weight 4 kg
Dropping distance 50 cm

Test result: OK



3.4 Electrical tests:

Endurance test

see 3.3 Mechanical tests

Test result: OK

Test of ability to break circuit

In accordance with EN 60947-5-1, a circuit was made with a resistor and choke in series.

Test date June 23th, 2011

Circuit

Test voltage 253 Vac

Test current 22.0 A

Cos φ 0,7 = 45°

Test result: OK

Test for resistance of leakage currents

This test is not performed but based on the values from prior tests made by the manufacturers supplier these values go beyond the requirements of the EN81-1/2 and EN81-20/50. The CTI value for Lexan 500 (10 % glass fibre) is 175V. The minimum value requested according to the mentioned standards is 175V. Also different literature confirm these values.

ATEX tests and DC tests were performed for the Steute Ex 13 R 1Ö/1S (Cat. II) locking contact. Physikalisch-Technische Bundesanstalt in Braunschweig performed these ATEX tests. We adopted the results in our EU-type examination.

4. Results

After the final examination the product and the technical file were found in accordance with the requirements. The functional tests passed without remarks.

5. Conditions

Additional to or in deviation of the applicable demands in the considered requirements / standards (see certificate and/or page 1 of this report), the following conditions shall be taken into account:

- The door lock shall be used for swing doors only.
- The door locking device shall be applied within rated current and voltage 2.0 A / 230 VAC or 0.25 A / 230 VDC.



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- The SPX4/EX lock shall always have the Steute Ex 13 R 1Ö/1S (Cat. II) locking contact.
- The user manual shall be provided with the component.
- Max. door gap at the locking side shall be 12.0 mm. In case of SPX4/+6 this can be increased to 18.0 mm maximum.
- Locking distance before making contact must be at least 7 mm.
- The SPX4 with locking pin without chamfer may only be used for the bottom landing door in case this door is the only access to the well pit and if the requirements of §7.7.2.2 of EN 81-1/2 are not applicable.
- The position of the unlocking triangle shall be according to clause 5.3.9.3.2 of EN81-20.

6. Conclusions

Based upon the results of the EU-type examination Liftinstituut B.V. issues an EU-type examination certificate.

The EU-type examination certificate is only valid for products which are in conformity with the same specifications as the type certified product. The certificate is issued based on the requirements that are valid at the date of issue. In case of changes of the product specifications, changes in the requirements or changes in the state of the art the certificate holder shall request Liftinstituut B.V. to reconsider the validity of the certificate.



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PRODUCTEN
RVA C 067

7. CE marking and EU Declaration of conformity

Every safety component that is placed on the market in complete conformity with the examined type must be provided with a CE marking according to article 18 of the Lift directive 2014/33/EU under consideration that conformity with eventually other applicable Directives is proven. Also every safety component must be accompanied by an EU declaration of conformity according to annex II of the Directive in which the name, address and Notified Body identification number of Liftinstituut B.V. must be included as well as the number of the EU-type examination certificate.

An EU type-certified safety component shall be random checked e.g. according to annex IX of the Lift directive 2014/33/EU before these safety components may be CE-marked and may be placed on the market. For further information see regulation 2.0.1 'Regulations for product certification' on www.liftinstituut.com.

Prepared by:

Mohamed Issa
Product Specialist Certification

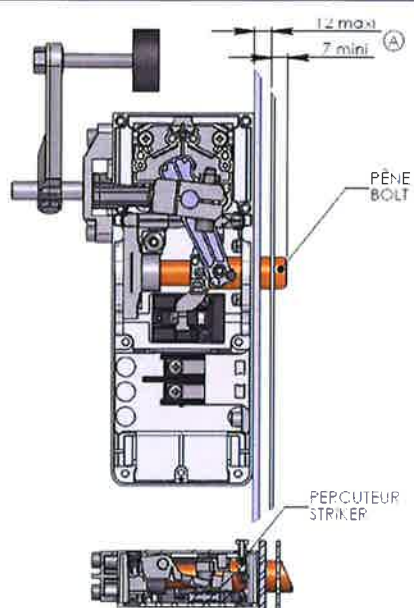
Certification decision by:

W.G. Kasteleijn
Product Manager Certification

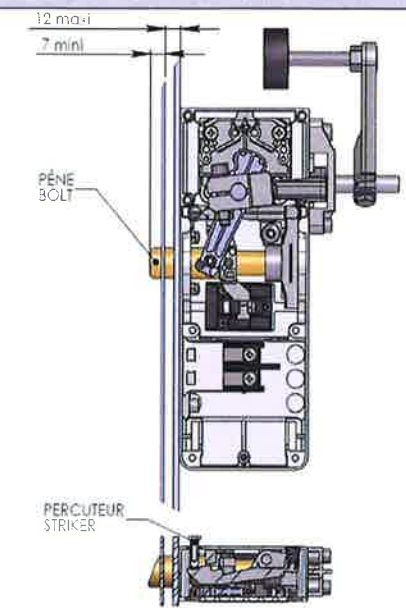


Annexes

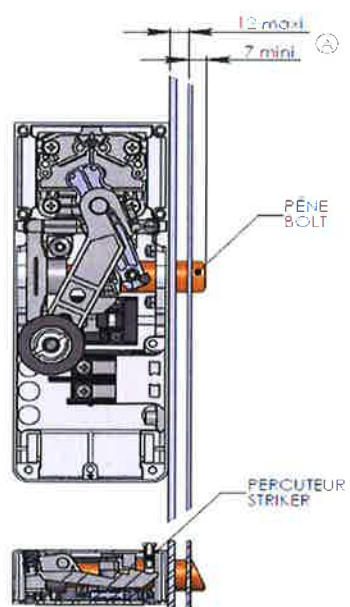
Annex 1.a Door locking device SPX4



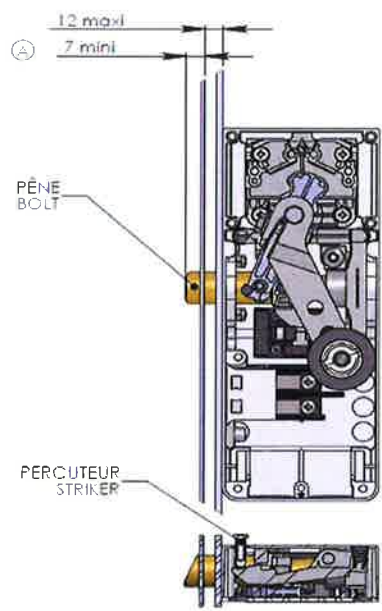
SPX4-O/PG



SPX4-O/PL



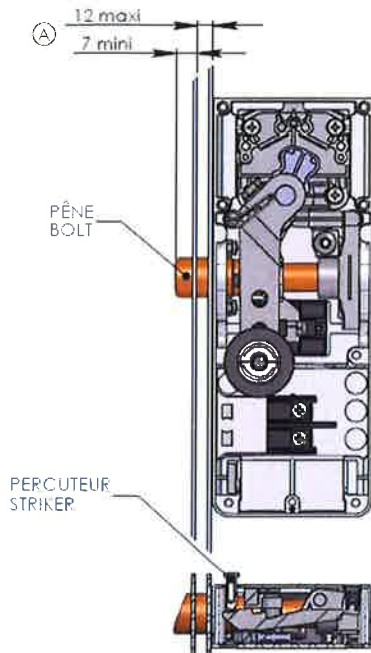
SPX4-O/LG



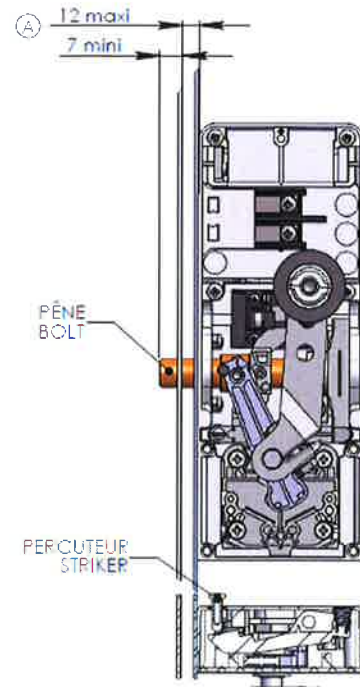
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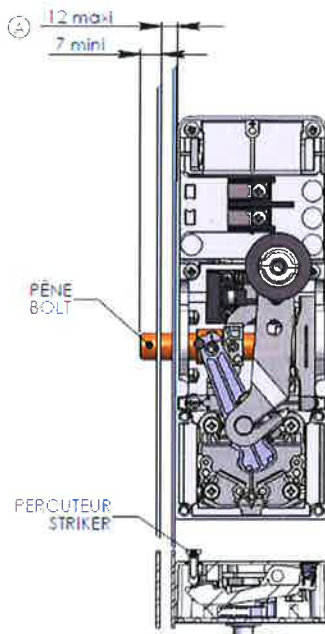
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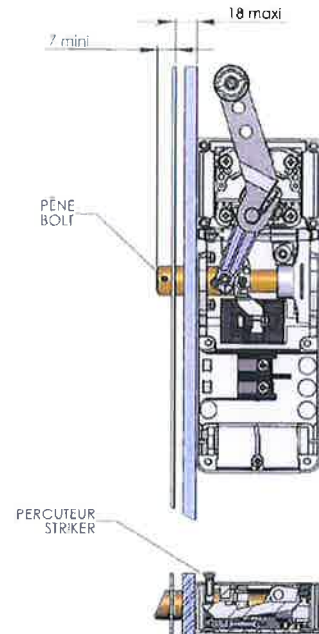
SPX4-T/L



SPX4-K/L



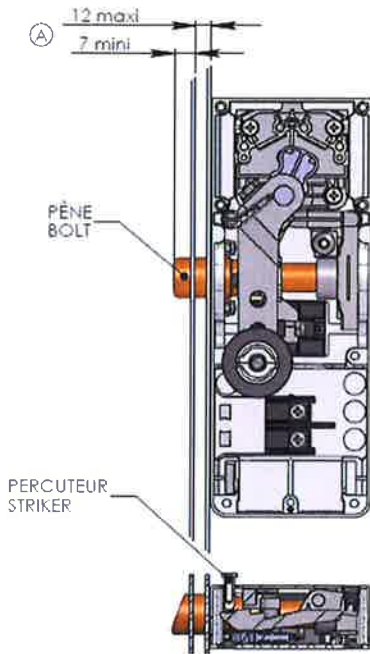
SPX4-O/LG



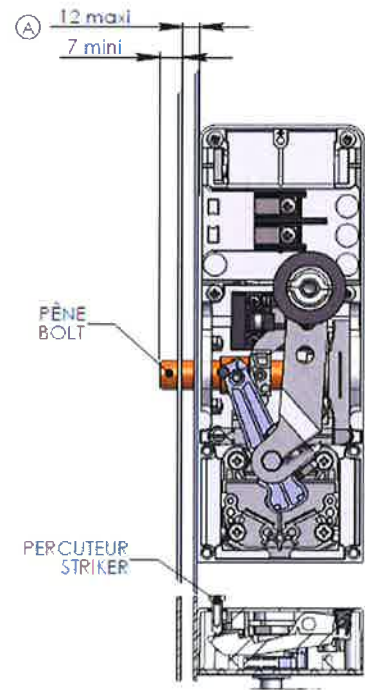
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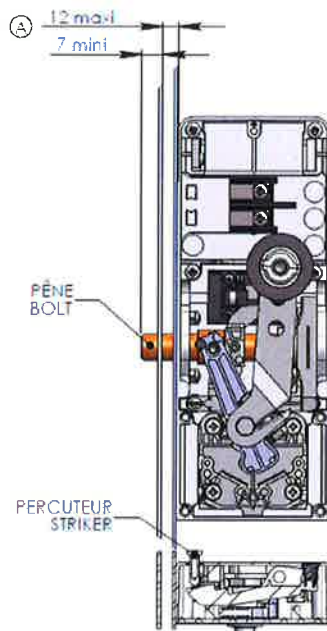
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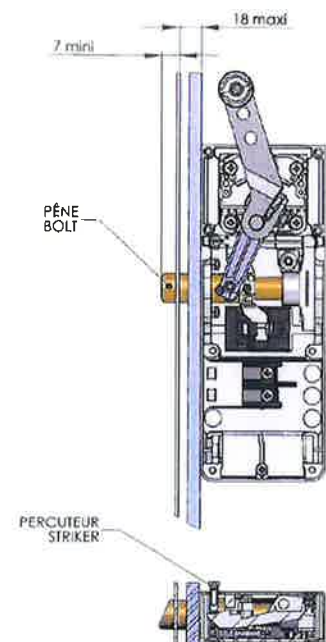
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SPX4-K/L



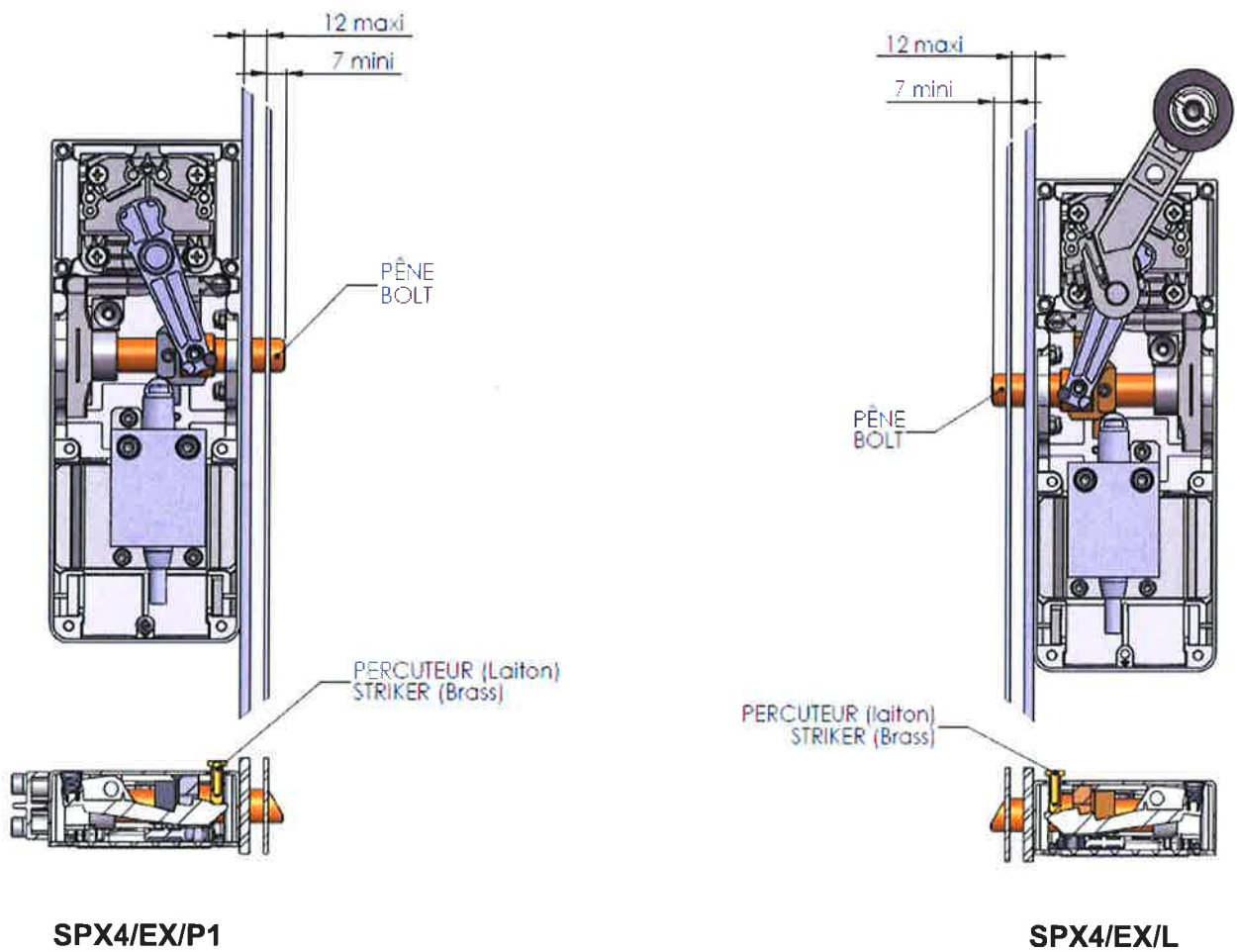
SPX4-S/L



SPX4/+6



Annex 1b. Door locking device SPX4/EX





Annex 2. Documents of the Technical File which were subject of the examination

Title	Document number	Date
Installation manual SPX4	Version 03	13-09-2012
Drawing X4-E-001 LI-2	Rev A	27-07-2009
Drawing X4-E-015 LI-2	Rev.A	09-07-2009
Drawing X4-E-016 LI-2	Rev A	10-07-2009
Drawing X4-E-017 LI-2	Rev A	13-07-2009
Drawing X4-E-019 LI-2	Rev A	23-07-2009
Drawing X4-E-032 LI-2	Rev.A	22-07-2009
Drawing X4-E-035 LI-2	Rev A	23-07-2009
Drawing X4-E-036 LI-2	Rev A	27-07-2009
Drawing X4-E-250 LI-2	Rev. -	17-07-2012
Drawing X4-E-198 LI-2	Rev -	19-04-2011
Drawing X4-E-204 LI-2	Rev.-	01-06-2011
Drawing X4-E-208 LI-2	Rev -	23-06-2011
Drawing X4-E-212 LI-2	Rev -	23-06-2011
Installation manual SPX4/EX	Version 01	27-06-2011

Annex 3. Reviewed deviations from the standards

EN xx-x par.	Requirement	Accepted design
x.x.x		

Annex 4. Revision of the certificate and its report

Rev.:	Date	Summary of revision
-	05-03-2010	Original
1	28-07-2010	Adding locking pin without chamfer
2	15-02-2011	Change of maximum allowable door gap
3	13-09-2012	Change of locking pin dimensions for SPX4/+6 version
4	01-08-2017	Update to EN81-20/50 and 2014/33/EU. Inserted 1002-125-03 certification.
5	16-01-2023	Certification renewal. Update the standard versions.

End of report