

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-14/0463**  
**of 28 April 2022**

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds,  
W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+ 160,  
W-Tec 3Df 160 and W-Tec 3DL

Product family  
to which the construction product belongs

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds,  
W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+ 160,  
W-Tec 3Df 160 and W-Tec 3DL

Manufacturer

SFS intec SpA  
Via Castelfranco Veneto 71  
33170 PORDENONE  
ITALIEN

Manufacturing plant

SFS intec SpA  
Via Castelfranco Veneto 71  
33170 PORDENONE  
ITALIEN

This European Technical Assessment  
contains

12 pages including 8 annexes which form an integral part  
of this assessment

This European Technical Assessment is  
issued in accordance with Regulation (EU)  
No 305/2011, on the basis of

EAD 020001-01-0405

This version replaces

ETA-14/0463 issued on 19 September 2018

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## Specific Part

### 1 Technical description of the product

This European Technical Assessment applies to the variable concealed multi-axis hinges made of aluminium and zinc diecasting with the designation "W-Tec 3D+ 60", "W-Tec 3Di 60", "W-Tec 3Ds", "W-Tec 3D+ 100", "W-Tec 3Di 100", "W Tec 3D+ 160", "W-Tec 3Df 160" and "W-Tec 3DL".

Each product consists of three parts, one part a mounting plate for the door frame, one part a mounting plate for the door leaf with segmented plates connected laterally in such a way as to allow the door to swing freely and to maintain the leaf in the same horizontal and vertical plane during the full operational cycle. Between the two mounting plates provide a variable geometry moving axis within a concealed hinge assembly.

The system setup of the product is given in Annexes 1 to 8.

### 2 Specification of the intended use in accordance with the applicable European assessment Document

The hinges are intended for use on doors of timber and metal. The doors could be made of synthetic materials if there is no requirement on resistance to fire.

They are invisible (concealed) hinges to allow single and double swing door leaves to be mounted flush to its door leaf and frame, forming a flush panel surface when the door is closed, and allowing the door to open to 180°.

The hinges are available for use on doors with door mass up to 60 kg ("W-Tec 3D+ 60", "W-Tec 3Di 60", "W Tec 3Ds"), 80 kg ("W-Tec 3D+ 100", "W-Tec 3Di 100"), 120 kg ("W-Tec 3D+ 160", "W Tec 3D+ 160") und 160 kg ("W-Tec 3DL") each door leaf.

The verifications and assessment methods on which this European Technical Assessment is based lead the assumption of working life of the hinges of 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

#### 3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1
Resistance to fire	EI <sub>2</sub> 30

#### 3.2 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

### 3.3 General aspects

The verification of durability is part of testing the essential characteristics.

Essential characteristic	Performance
Category of use	Grade 2 - W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds Grade 3 - W-Tec 3D+ 100, W-Tec 3Di 100 Grade 4 - W-Tec 3D+ 160, W-Tec 3Df 160, W-Tec 3DL
Durability	Grade 7
Test door mass	Grade 3 - W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds Grade 4 - W-Tec 3D+ 100, W-Tec 3Di 100 Grade 6 - W-Tec 3D+ 160, W-Tec 3Df 160 Grade 7 - W-Tec 3DL
Fire resistance	Grade 0 - W-Tec 3Ds Grade 1 - W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3Df 160, W-Tec 3DL, W-Tec 3D+ 160
Safety	Grade 1
Corrosion resistance	Grade 4
Security	Grade 0 - W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100 Grade 1 - W-Tec 3D+ 160, W-Tec 3Df 160, W-Tec 3DL
Hinge grade	Grade 10 - W-Tec 3D+ 60", W-Tec 3Di 60, W-Tec 3Ds Grade 11 - W-Tec 3D+ 100, W-Tec 3Di 100 Grade 13 - W-Tec 3D+ 160, W-Tec 3Df 160 Grade 14 - W-Tec 3DL

### 4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to Decision of the Commission 1999/93/EC (OJ L 29/51 of 26.01.1999 p. 51), as amended by Decision of the Commission 2011/246/EU (Letter of the European commission of 15/10/2004), the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

The system to be applied is: 1

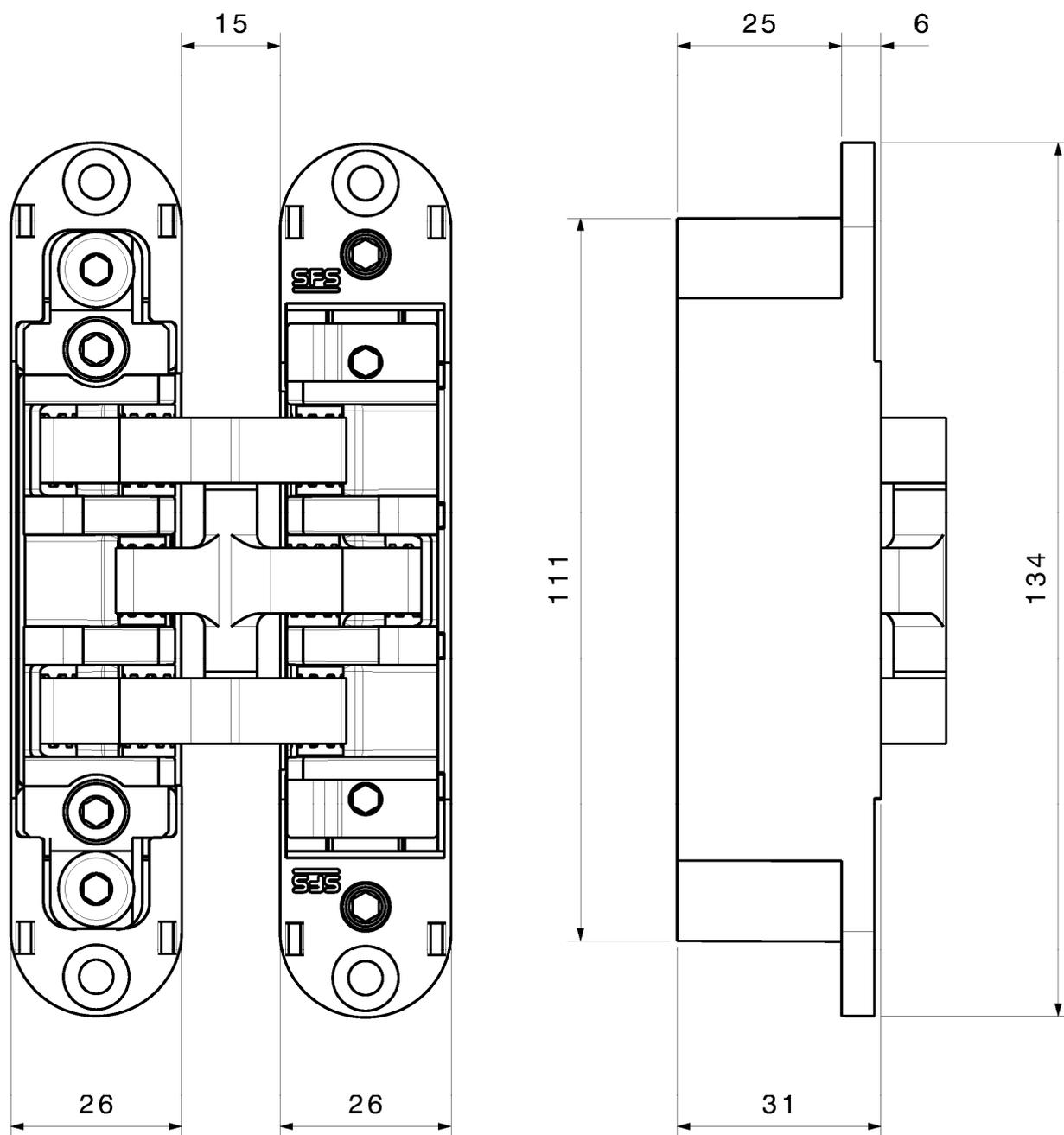
### 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

Issued in Berlin on 28. April 2022 by Deutsches Institut für Bautechnik

Christina Pritzkow  
Head of department

*Beglaubigt:*  
Panneck

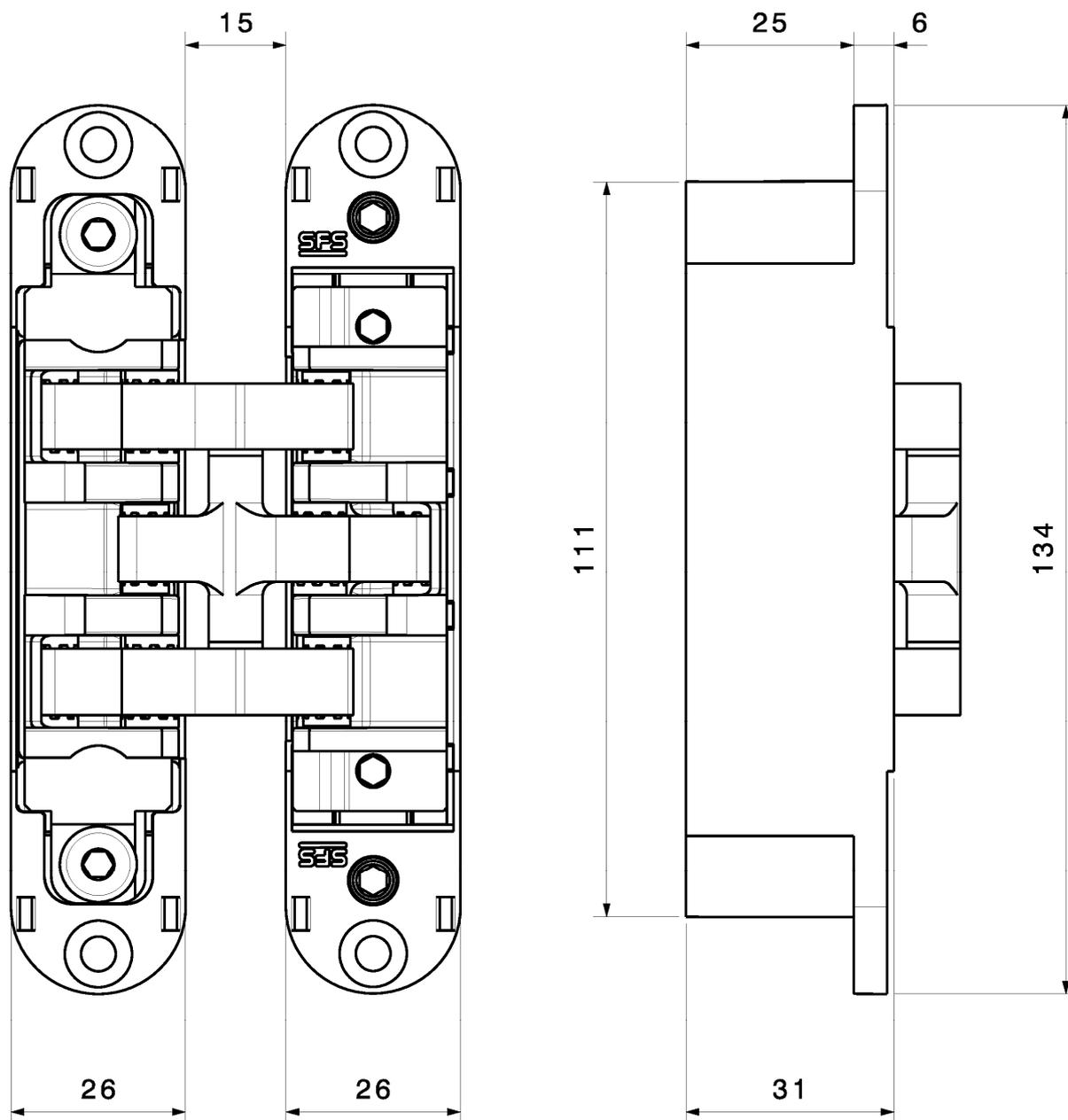


Electronic copy of the ETA by DIBt: ETA-14/0463

Construction "W-Tec 3D+ 60"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL

Annex 1

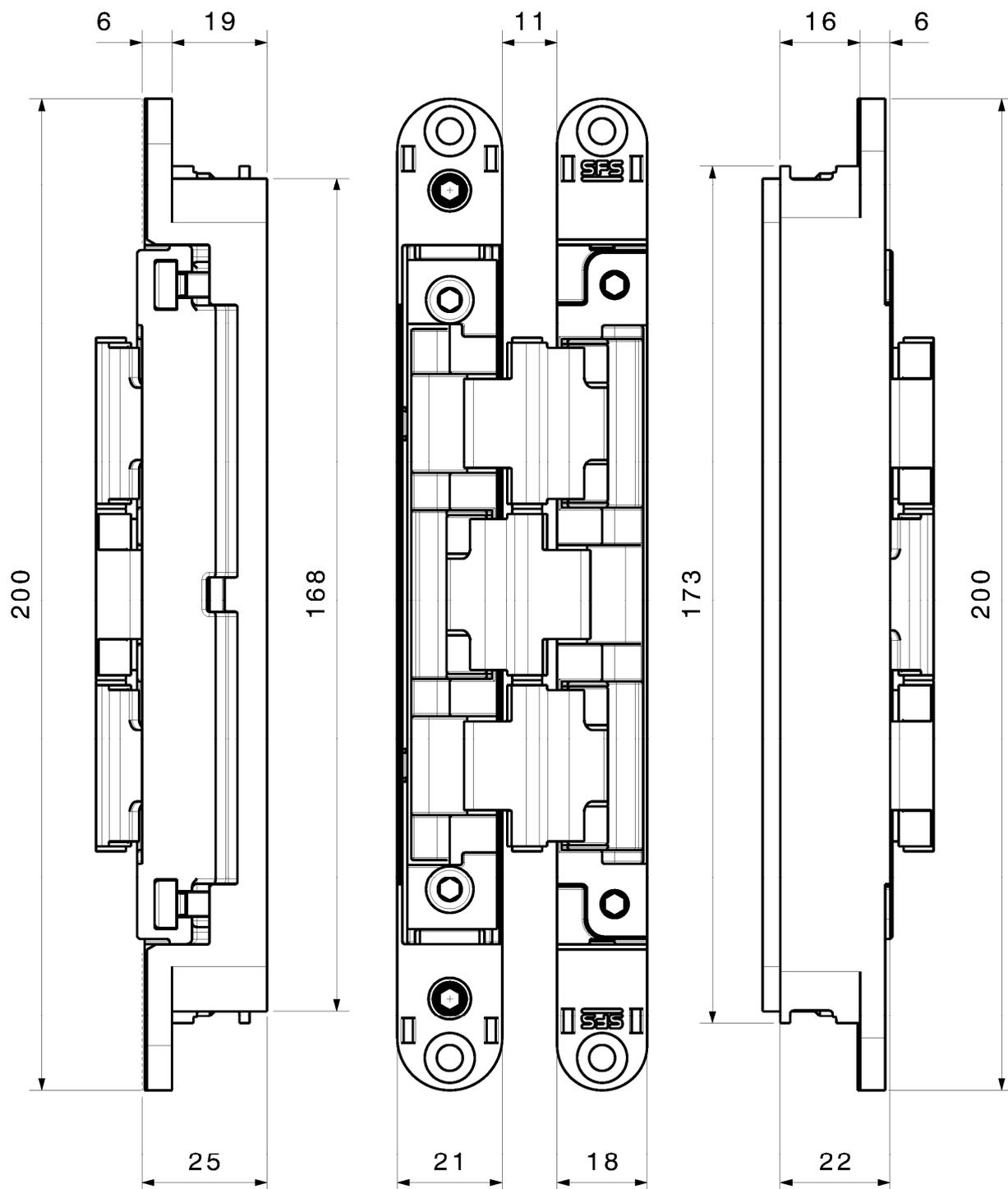


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Construction "W-Tec 3Di 60"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL

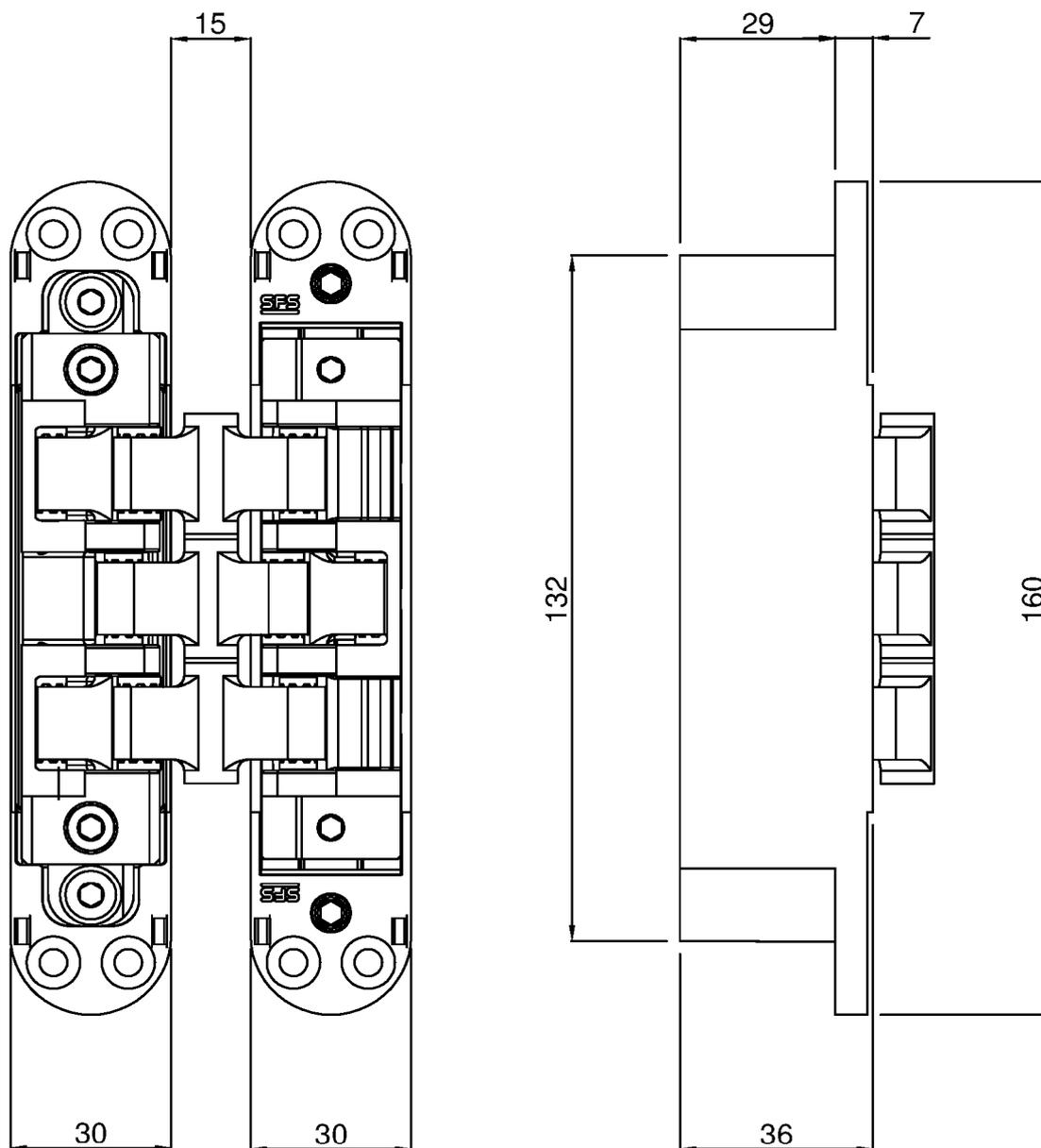
Annex 2



Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds,

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL

Annex 3

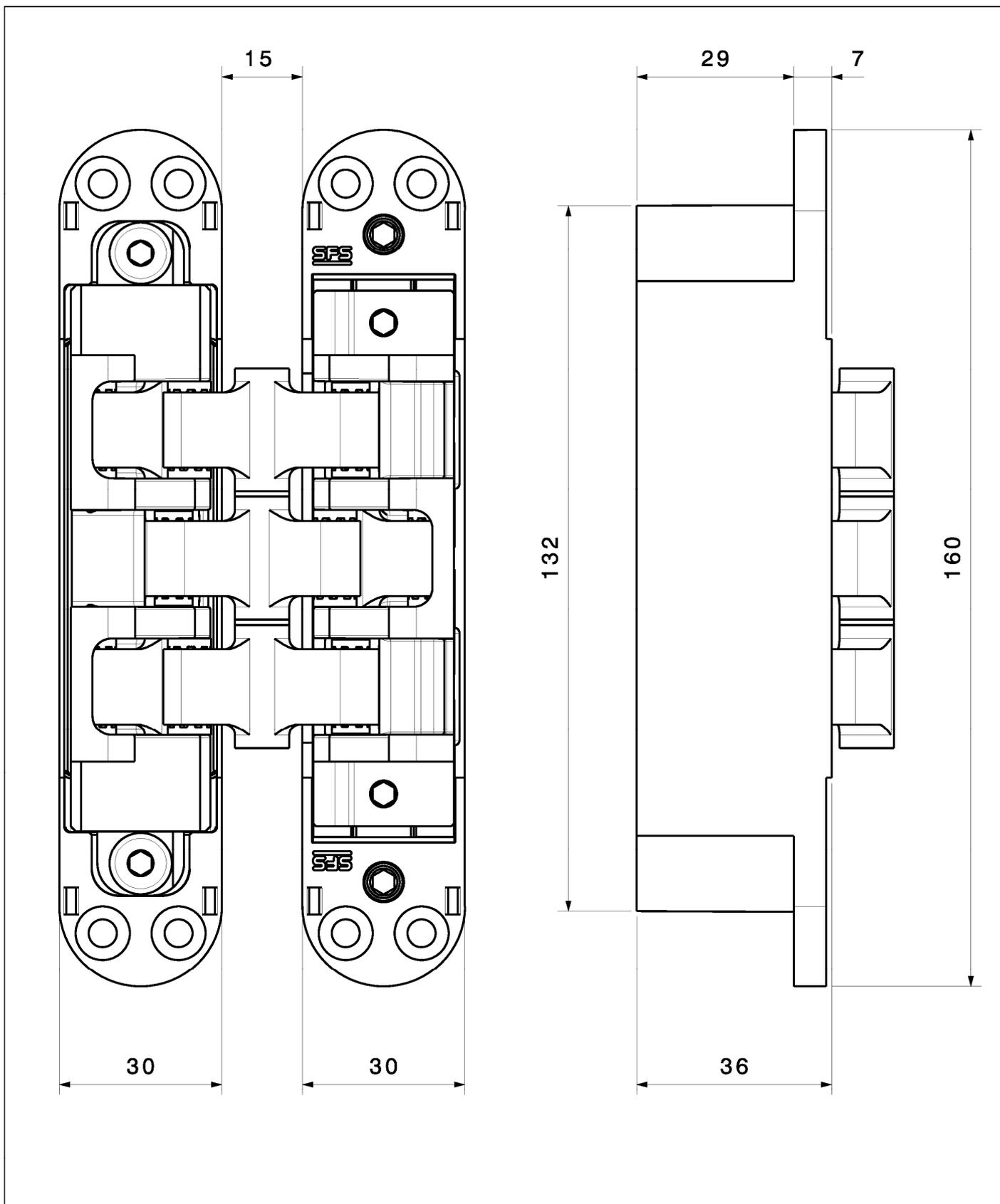


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Construction "W-Tec 3D+ 100"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL 160,

Annex 4

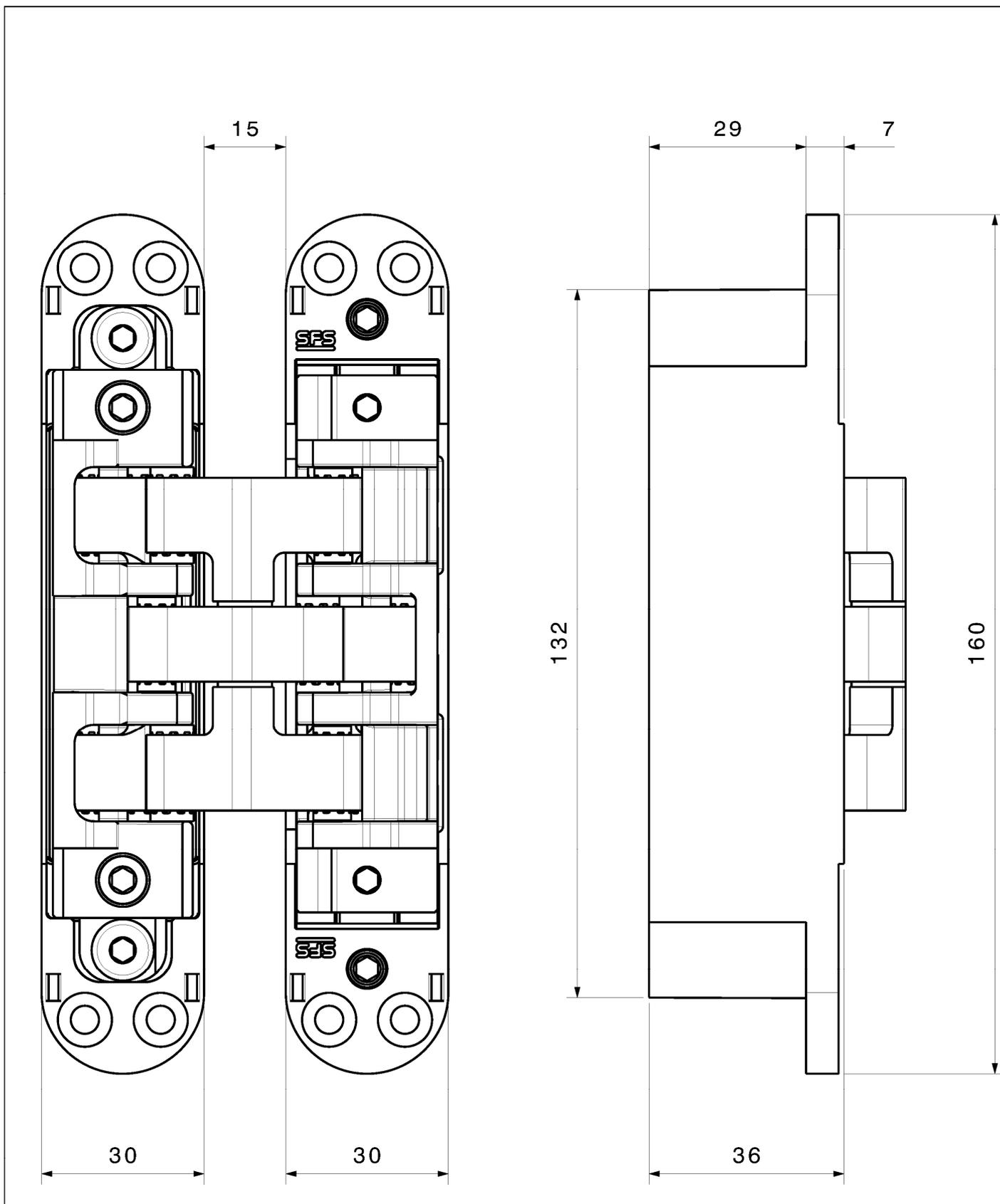


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Construction "W-Tec 3Di 100"

Multi-axis concealed hinges  
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160, W-Tec 3Df 160 and W-Tec 3DL

Annex 5

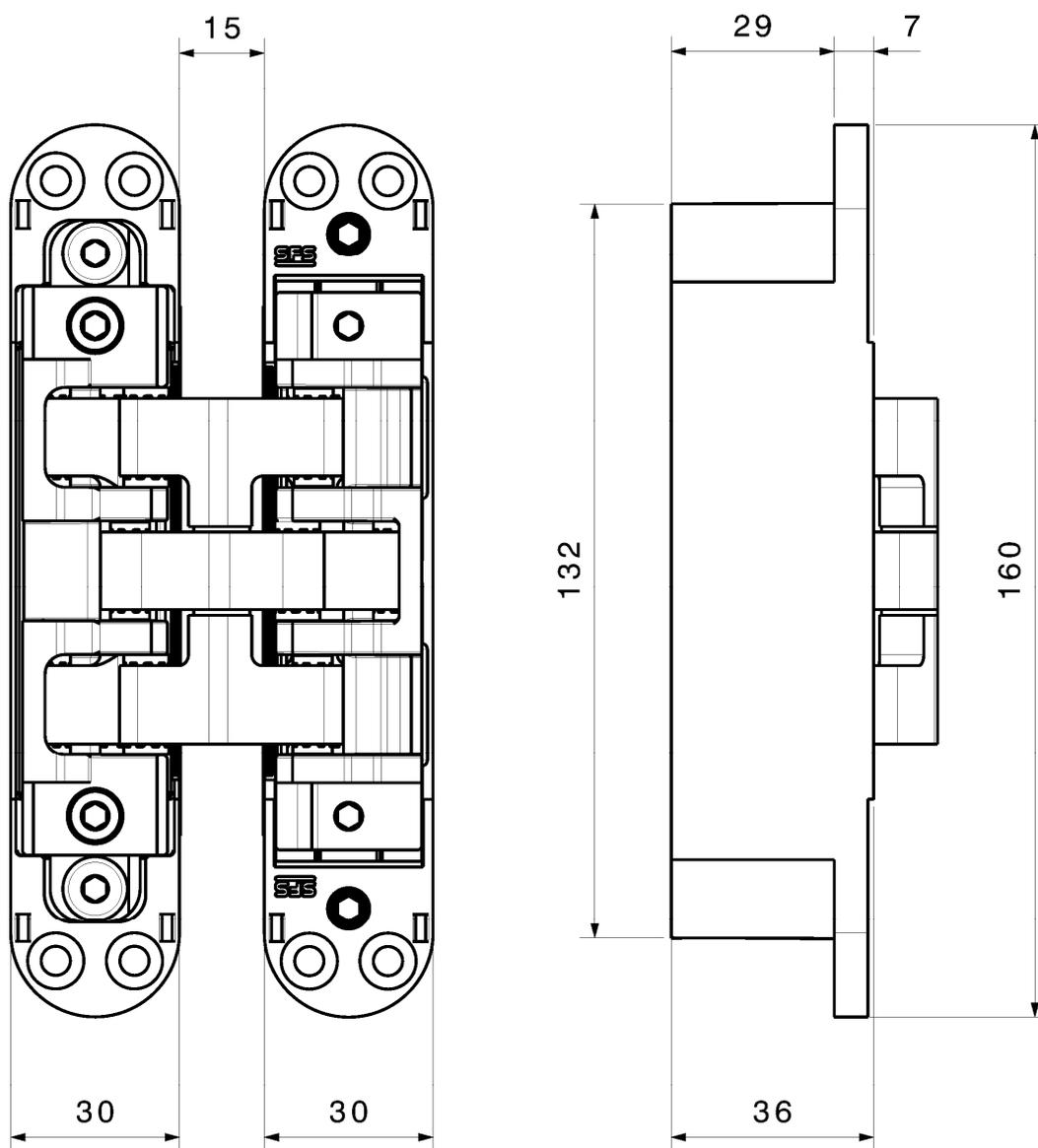


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Construction "W-Tec 3D+ 160"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL

Annex 6

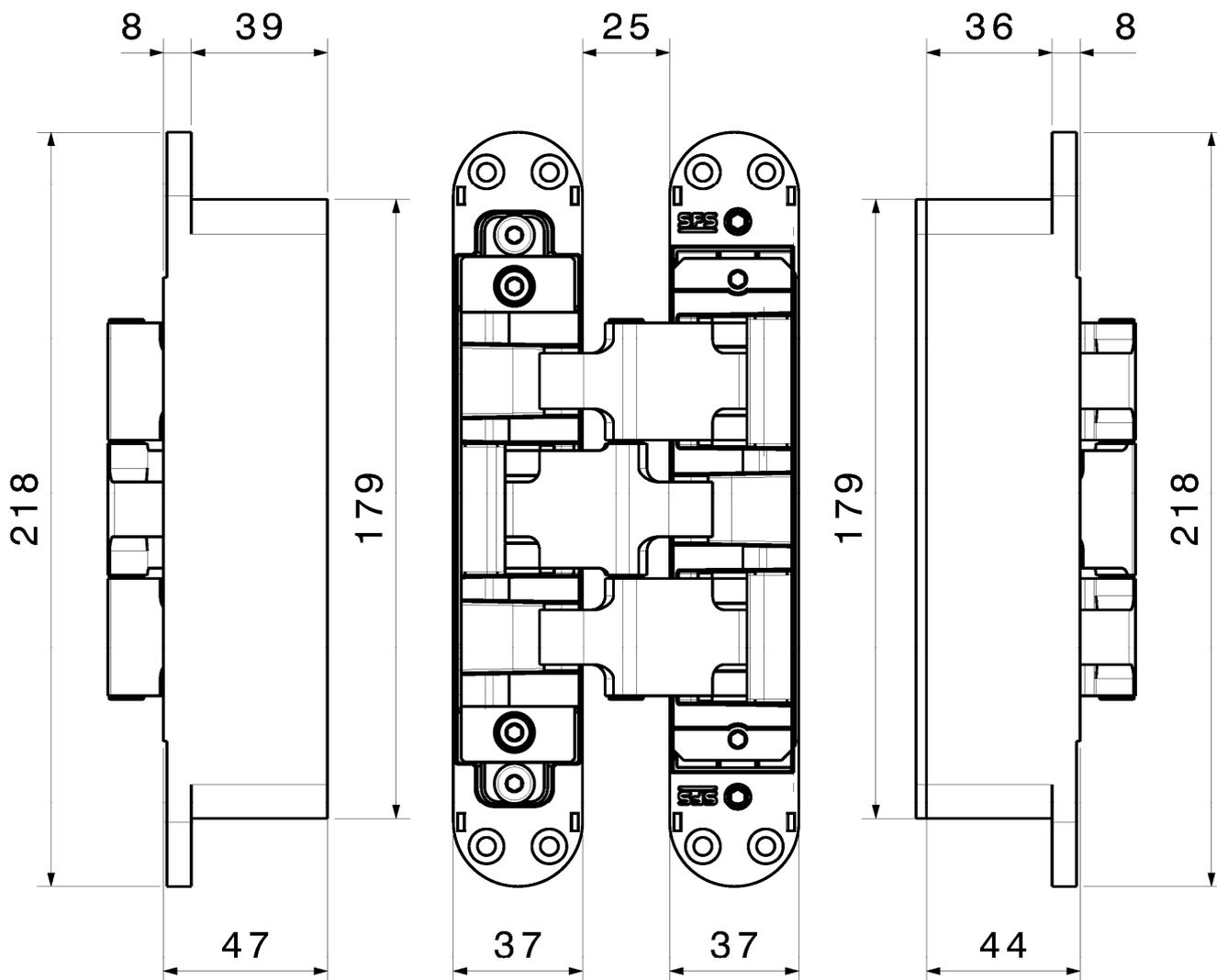


Electronic copy of the ETA by DIBt: ETA-14/0463

Construction "W-Tec 3Df 160"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+  
160, W-Tec 3Df 160 and W-Tec 3DL

Annex 7



Electronic copy of the ETA by DIBt: ETA-14/0463

Construction "W-Tec 3DL"

Multi-axis concealed hinges  
W-Tec 3D+ 60, W-Tec 3Di 60, W-Tec 3Ds, W-Tec 3D+ 100, W-Tec 3Di 100, W-Tec 3D+ 160, W-Tec 3Df 160 and W-Tec 3DL

Annex 8