Deutsches Institut für Bautechnik

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Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment ETA-18/0215 of 14 May 2019

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 INVISACTA IN230120, INVISACTA IN300120, INVISACTA IN303120 and INVISACTA IN310190
Product family to which the construction product belongs	Multi-axis concealed hinges INVISACTA IN230120, INVISACTA IN300120, INVISACTA IN303120 and INVISACTA IN310190
Manufacturer	OTLAV SpA Via Angelo Padovan 2 31025 SANTA LUCIA DI PIAVE (TV) ITALIEN
Manufacturing plant	OTLAV SpA Via Angelo Padovan 2 31025 SANTA LUCIA DI PIAVE (TV) ITALIEN
This European Technical Assessment contains	10 pages including 5 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-18/0215 issued on 2 May 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 mainly steel, aluminium and zamac with the designation "INVISACTA IN230120", "INVISACTA IN300120", "INVISACTA IN303120" and "INVISACTA IN310190".

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 products is given in Annex 1 to 4.

Several hinges have a labelling according to Annex 5.

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 leafs 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 uses on doors with door mass up to 60 kg ("INVISACTA IN230120", "INVISACTA IN300120"), 80 kg ("INVISACTA IN303120") and 120 kg ("INVISACTA IN310190") 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 Mechanical resistance and stability (BWR 1)

Not applicable

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	A1
Resistance to fire	EI_2 30 - "INVISACTA IN230120" "INVISACTA IN300120" EI_2 45 - "INVISACTA IN303120" EI_2 90 - "INVISACTA IN310190"

3.3 Hygiene, health and the environment (BWR 3)

Not applicable

3.4 Safety and accessibility in use (BWR 4)

Not applicable

3.5 Protection against noise (BWR 5)

Not applicable

3.6 Energy economy and heat retention (BWR 6)

Not applicable

3.7 Sustainable use of natural resources (BWR 7)

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

3.8 General aspects

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

Essential characteristic	Performance
Category of use	Grade 2 - "INVISACTA IN230120" "INVISACTA IN300120" Grade 3 - "INVISACTA IN303120" Grade 4 - "INVISACTA IN310190"
Durability	Grade 7
Test door mass	Grade 3 - "INVISACTA IN230120" "INVISACTA IN300120" Grade 4 - "INVISACTA IN303120" Grade 6 - "INVISACTA IN310190"
Fire resistance	Grade 1
Safety	Grade 1
Corrosion resistance	Grade 4
Security	Grade 0 - "INVISACTA IN230120" "INVISACTA IN300120" "INVISACTA IN303120" Grade 1 - "INVISACTA IN310190"
Hinge grade	Grade 10 - "INVISACTA IN230120" "INVISACTA IN300120" Grade 11 - "INVISACTA IN303120" Grade 13 - "INVISACTA IN310190"

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.

Product	Intended use	Level or class	System
"INVISACTA IN230120" "INVISACTA IN300120" "INVISACTA IN303120" "INVISACTA IN310190"	fire compartmentation and on escape routes	1	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 with Deutsches Institut für Bautechnik.

Issued in Berlin on 14 May 2018 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe
Head of Department

beglaubigt:
Pritzkow

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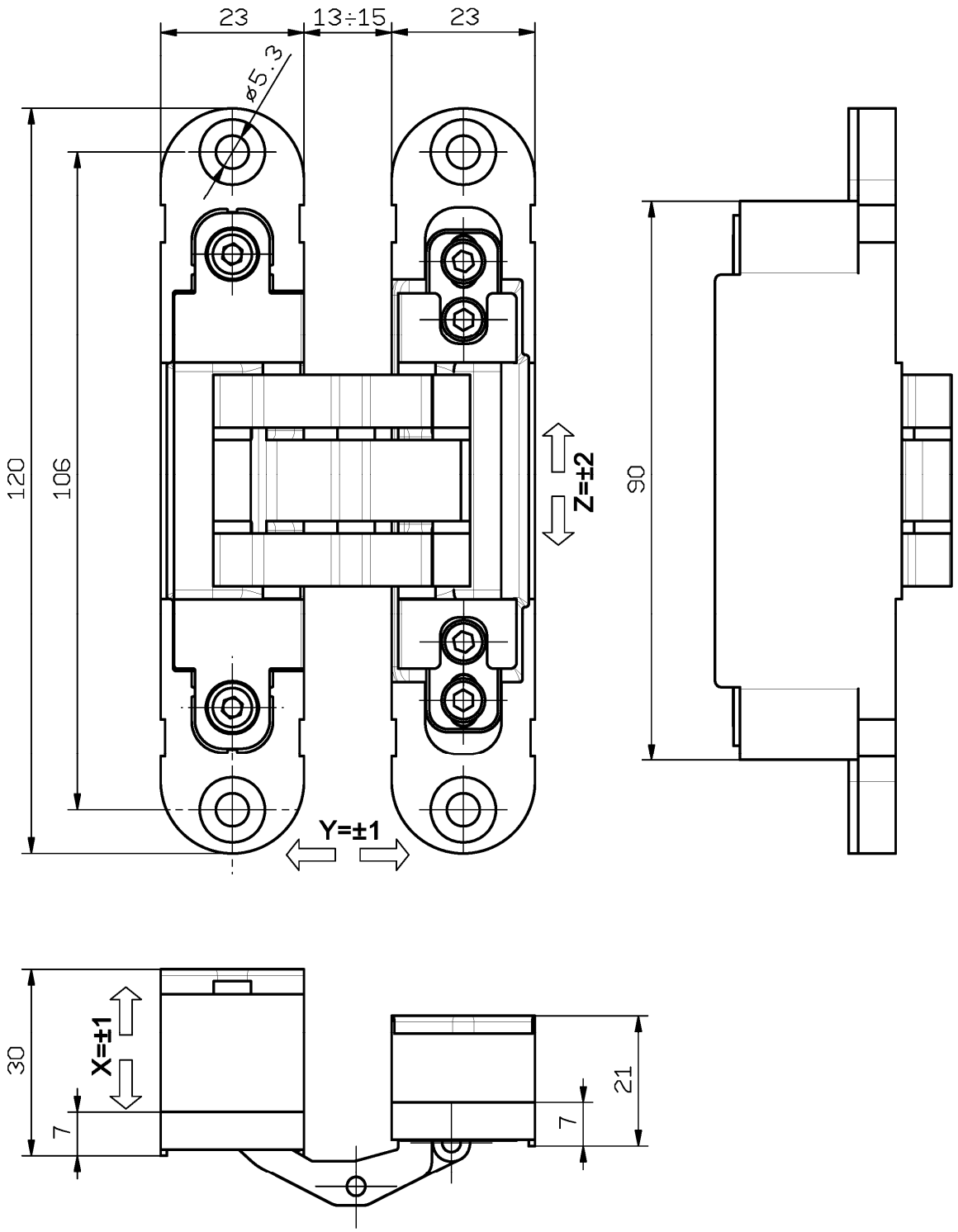
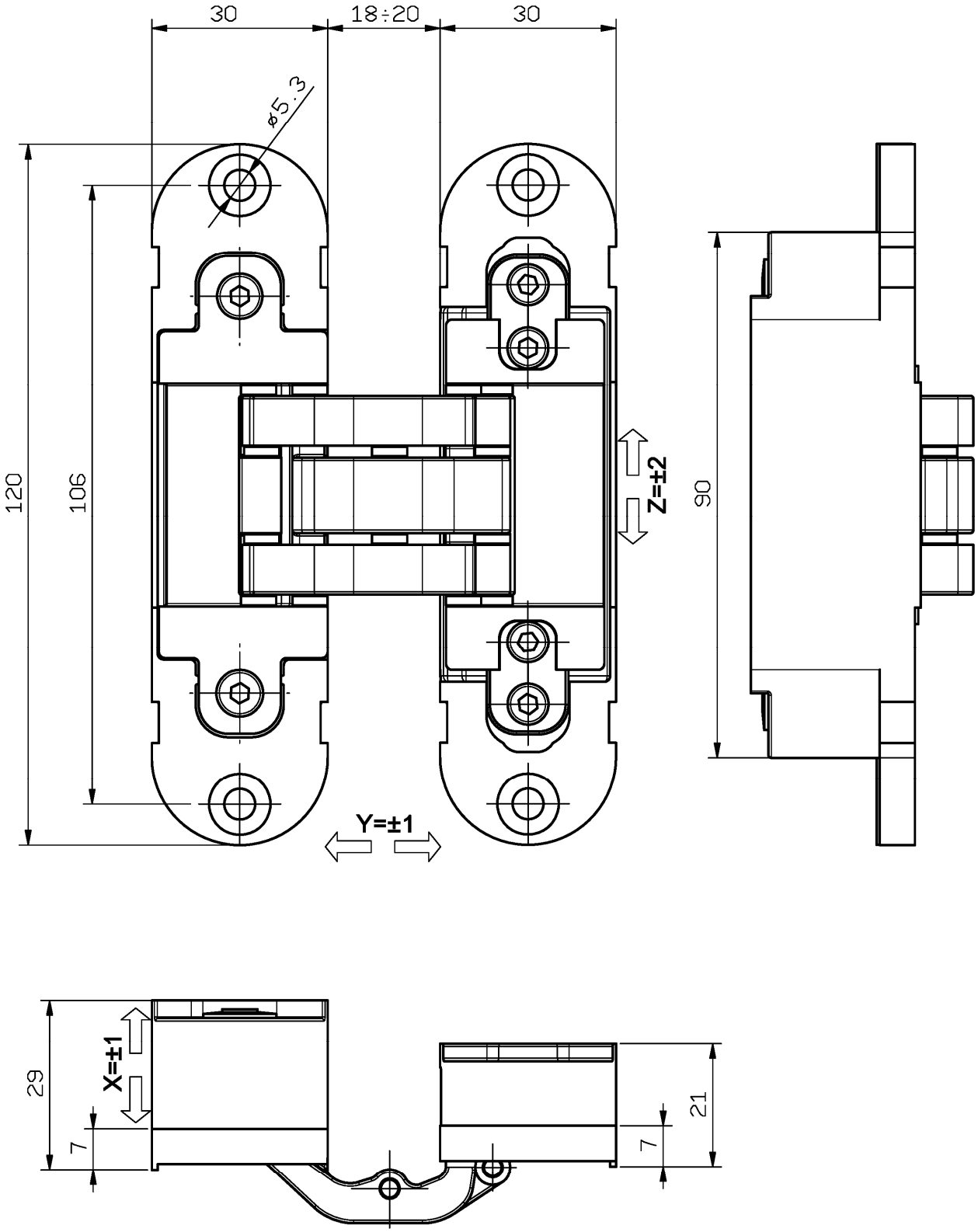


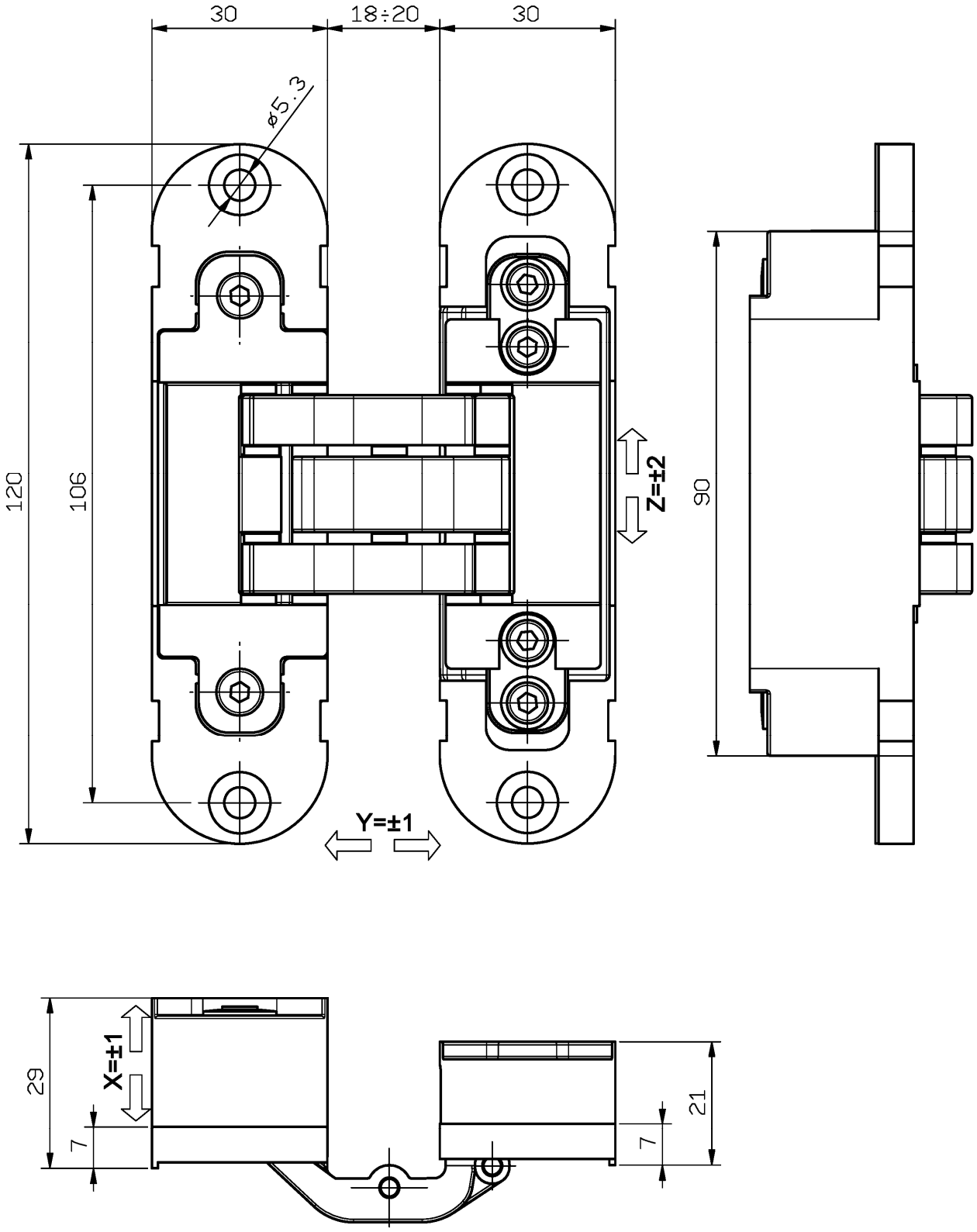
Multi-axis concealed hinges INVISACTA IN230120	Annex 1
Construction	



Multi-axis concealed hinges INVISACTA IN300120

Construction

Annex 2



Multi-axis concealed hinges INVISACTA IN303120

Construction

Annex 3

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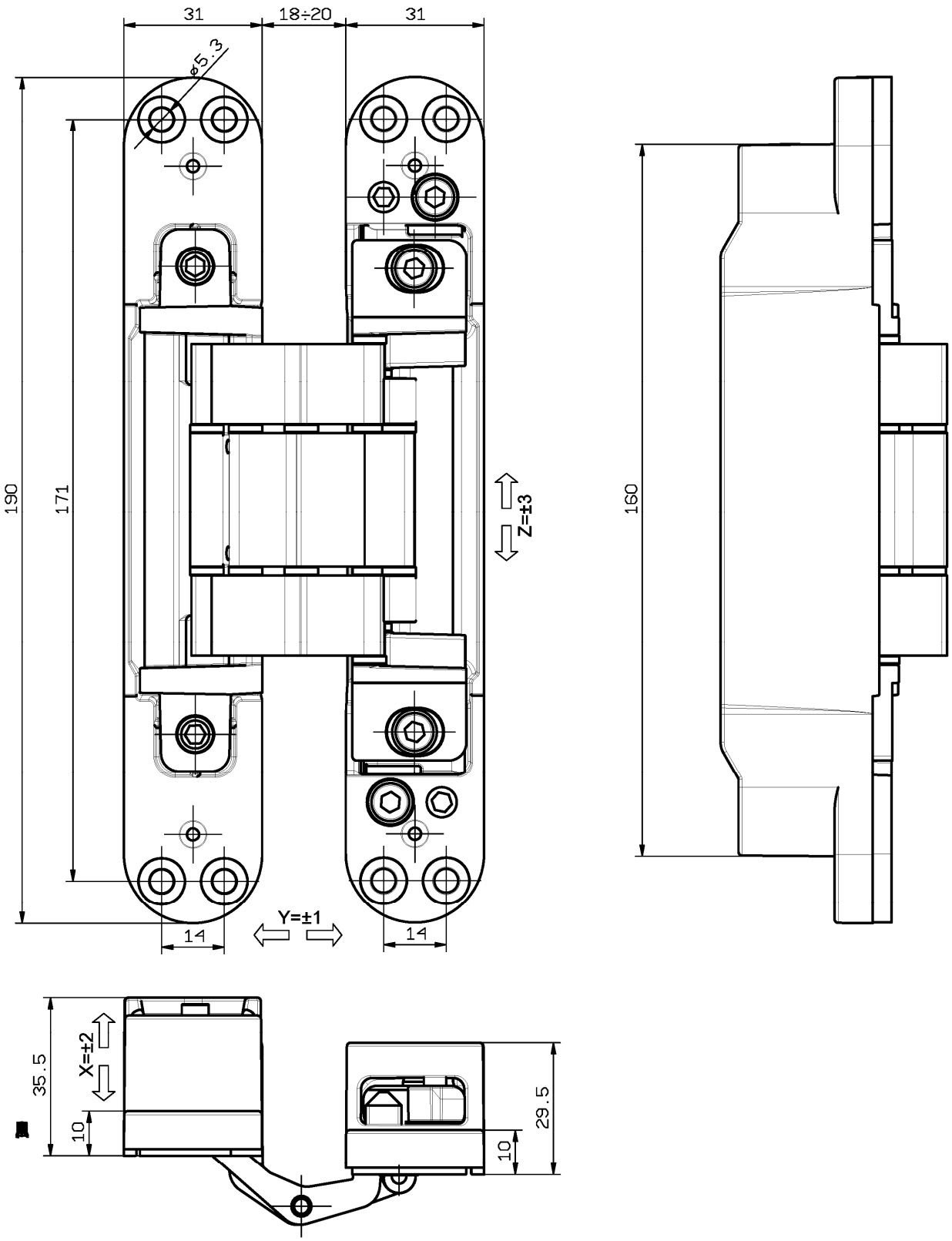

Multi-axis concealed hinges INVISACTA IN310190	Annex 4
Construction	

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Further labelling of individual hinges according to the statement of applicant:

INVISACTA IN310190 C7.5-3-35-R-1

Multi-axis concealed hinges INVISACTA IN310190	Annex 5
Labelling of hinges	