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European Technical Assessment

ETA-21/1045 of 30/12/2021

General Part

Technical Assessment Body issuing the European Technical Assessment

Instytut Techniki Budowlanej

Trade name of the construction product

HILTI base connectors of MT System

Product family to which the construction product belongs

Products for installation systems for supporting technical building equipment

Manufacturer

HILTI AG
Feldkircherstraße 100
9494 Schaan
FÜRSTENTUM LIECHTENSTEIN

Manufacturing plants

L 1124303, L 1087643, L 1027881

This European Technical Assessment contains

35 pages including 3 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

European Assessment Document EAD 280016-00-0602 "Products for installation systems for supporting technical building equipment"

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Specific Part

1 Technical description of the product

This European Technical Assessment covers HILTI base connectors of MT System:

MT-B-L, MT-B-L OC, MT-B-T, MT-B-T OC, MT-B-O2, MT-B-O2 OC, MT-B-O4, MT-B-O4 OC, MT-B-GS T OC, MT-B-GS O4U OC, MT-B-GL O4 OC, MT-B-GXL O4 OC, MT-B-GXL S1 OC, MT-B-GXL S2 OC, MT-B-GXL S3 OC, MT-B-G WS OC, MT-AB-L 45, MT-AB-L 45 OC, MT-BC-GS T OC, MT-BC-GXL T OC, MT-B-O2B and MT-B-O2B OC.

MT-B-L and MT-B-L OC base connectors are made of zinc coated steel. The base connectors have two leg angle of equal length, arranged at an angle of 90° between each other. One opening is located centrally on each leg angle.

MT-B-T and MT-B-T OC base connectors are made of zinc coated steel. Each connector has a U-shaped profile with two openings on each flange. The flanges are at one end extended with one opening on each flange and arranged at 90° to the U-shaped profile.

MT-B-O2 and MT-B-O2 OC base connectors are made of zinc coated steel. Each connector consists of one profiled base plate with two openings on which a U-shaped profile with trapezoidal flanges and two openings on each area is arranged at 90° to the base plate.

MT-B-O4 and MT-B-O4 OC base connectors are made of zinc coated steel. Each connector consists of one flat base plate with four openings on which a rectangular profile is arranged at 90° to the base plate. In the rectangular profile are arranged two openings on each short side and four openings on each long side.

MT-B-GS T OC base connectors are made of zinc coated steel. Connector consists of one flat base plate with nine openings in different shapes on which a U-shaped profile is arranged at 90° to the base plate. In the U-shaped profile are four openings on each parallel flange and two openings on the connecting flange.

MT-B-GS O4U OC base connector is made of zinc coated steel. Connector consists of one flat base plate with four openings on which a U-shaped profile is arranged at 90° to the base plate. In the U-profile are four openings on each parallel flange and two openings on the connecting flange.

MT-B-GL O4 OC base connector is made of zinc coated steel. Connector consists of one flat base plate with five openings on which four profiles in trapezoidal shape with six openings in each connecting flange are arranged and surrounding a square area in the center of the base plate.

MT-B-GXL O4 OC base connector is made of zinc coated steel. Connector consists of one flat base plate with five openings on which four profiles in trapezoidal shape with nine openings in each connecting flange are arranged and surrounding a rectangular area in the center of the base plate.

MT-B-GXL S1 OC base connector is made of zinc coated steel. Connector consists of one square flat base plate with various openings of different size and shape on which a U-shaped profile is arranged at 90° to the base plate. In the U-shaped profile are nine openings on each parallel flange and six openings on the connecting flange.

MT-B-GXL S2 OC base connector is made of zinc coated steel. Connector consists of one rectangular flat base plate with four openings as longholes on which a U-shaped profile is arranged at 90° to the base plate. In the U-shaped profile are nine openings on each parallel flange and six openings on the connecting flange.

MT-B-GXL S3 OC base connector is made of zinc coated steel. Connector consists of one rectangular flat base plate with four openings as longholes on which a U-shaped profile is arranged at 90° to the base plate. In the U-shaped profile are nine openings on each parallel flange and six openings on the connecting flange.

MT-B-G WS OC base connector is made of zinc coated steel. Connector consists of an L-shaped profile with the two leg angles having a trapezoid shape with various openings of different size and shape.

MT-AB-L 45 and MT-AB-L 45 OC base connectors are made of zinc coated steel. Each connector has a U-shaped profile with the parallel flanges having a trapezoidal shape. One opening is arranged on each parallel flange and two openings are on the connecting flange. The connecting flange is extended with one opening and arranged at 45° to the U-shaped profile.

MT-BC-GS T OC and MT-BC-GXL T OC base connectors are made of zinc coated steel. Each set consist of one U-bolt, bearing plate and two hexagon nuts, retaining washer, saddle and clamping claw.

MT-B-O2B and MT-B-O2B OC base connectors are made of zinc coated steel. Each connector consists of one flat base plate with two openings on which a rectangular profile is arranged at 90° to the base plate. In the rectangular profile are arranged two openings on each short side and four openings on each long side.

The drawings, dimensions and materials of the HILTI base connectors of MT System are given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)

The performances given in clause 3 are only valid if HILTI base connectors of MT Sytem are in compliance with the specifications and conditions given in Annex B.

The provisions made in this European Technical Assessment are based on an assumed working life of the HILTI base connectors of MT Sytem of 50 years when installed in the works. The indications given on the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body, 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.

In accordance with the European Assessment Document EAD 280016-00-0602, the products are intended to be used under dry indoor conditions for supporting:

- pipes for the transport of water not intended for human consumption,
- pipes for the transport of gas/fuel intended for the supply of building heating/cooling systems,
- technical building equipment in general.

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

3.1 Performance of the product

3.1.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1
Resistance under fire exposure	No performance assessed

3.1.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Shape	Annex A
Dimension	Annex A
Material	Annex A
Characteristic resistance	Annex C

3.2 Methods used for the assessment

The assessment has been made in accordance with EAD 280016-00-0602.

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

For products for installation systems to be used for supporting pipes for the transport of water not intended for human consumption, according to the Decision 1999/472/EC of the European Commission, amended by the Decision 2001/596/EC, the system 4 of assessment and verification of constancy of performance (see Annex V to the regulation (EU) No 305/2011) applies.

For products for installation systems intended to be used for supporting pipes for the transport of gas/fuel intended for the supply of building heating/cooling systems, according to the Decision 1999/472/EC of the European Commission, amended by the Decision 2001/596/EC, the system 3 of assessment and verification of constancy of performance (see Annex V to the regulation (EU) No 305/2011) applies.

For products for installation systems intended to be used for supporting technical building equipment in general according to the Decision 97/161/EC of the European Commission, the system 2+ of assessment and verification of constancy of performance (see Annex V to the regulation (EU) No 305/2011) applies.

5 Technical details necessary for the implementation of the AVCP system, as provided in the applicable European Assessment Document (EAD)

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited in Instytut Techniki Budowlanej.

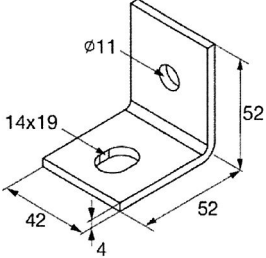
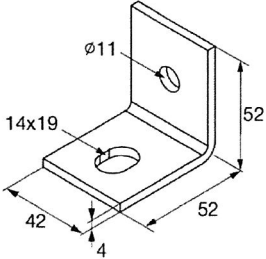
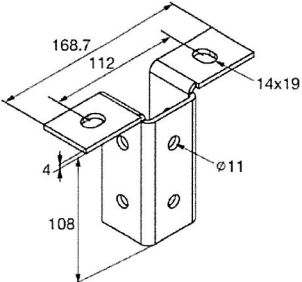
For the type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

Issued in Warsaw on 30/12/2021 by Instytut Techniki Budowlanej



Anna Panek, MSc
Deputy Director of ITB

Table A1: Shape, dimensions and materials of MT-B-L, MT-B-L OC and MT-B-T

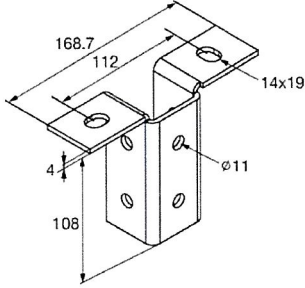
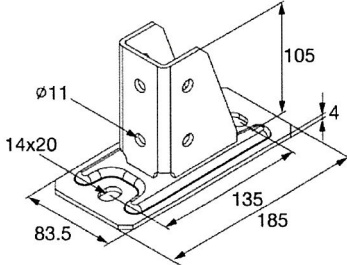
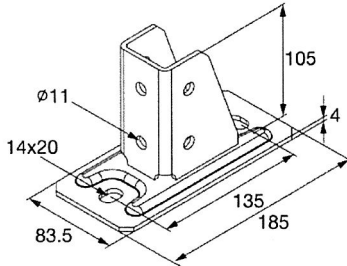
Shape and dimensions [mm]	Item number	Designation	Material
	2272086	MT-B-L	Steel Q235B acc. to GB/T 700; galvanized
	2272088	MT-B-L OC	Steel Q235B acc. to GB/T 700; hot dip galvanized
	2272090	MT-B-T	Steel Q235B acc. to GB/T 700; galvanized

HILTI base connectors of MT System

Product description
 Shape, dimensions and materials of base connectors
 MT-B-L, MT-B-L OC and MT-B-T

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 of European
 Technical Assessment
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Table A2: Shape, dimensions and materials of MT-B-T OC, MT-B-O2, MT-B-O2 OC

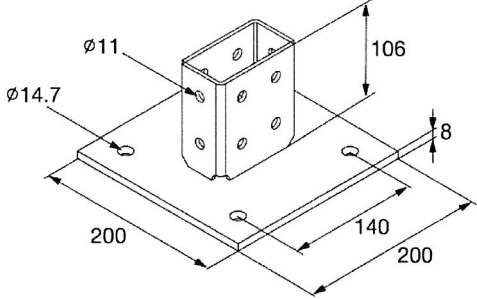
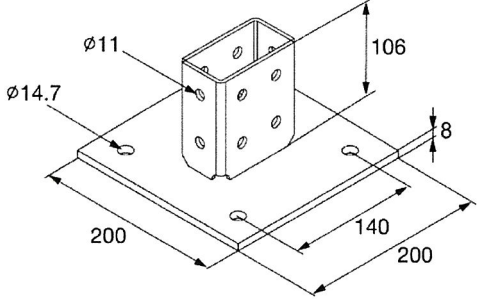
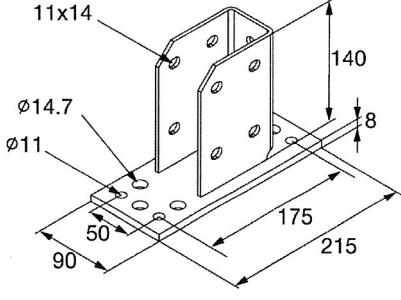
Shape and dimensions [mm]	Item number	Designation	Material
	2272092	MT-B-T OC	Steel Q235B acc. to GB/T 700; hot dip galvanized
	2272094	MT-B-O2	Steel Q235B acc. to GB/T 700; galvanized
	2272096	MT-B-O2 OC	Steel Q235B acc. to GB/T 700; hot dip galvanized

HILTI base connectors of MT System

Product description
 Shape, dimensions and materials of base connectors
 MT-B-T OC, MT-B-O2 and MT-B-O2 OC

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Table A3: Shape, dimensions and materials of MT-B-O4, MT-B-O4 OC and MT-B-GS T OC

Shape and dimensions [mm]	Item number	Designation	Material
	2272098	MT-B-O4	Steel Q235B acc. to GB/T 700 galvanized
	2272099	MT-B-O4 OC	Steel Q235B acc. to GB/T 700 hot dip galvanized
	2272100	MT-B-GS T OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized

HILTI base connectors of MT System

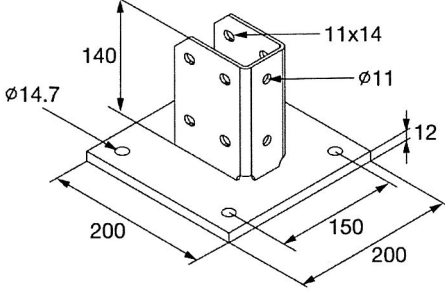
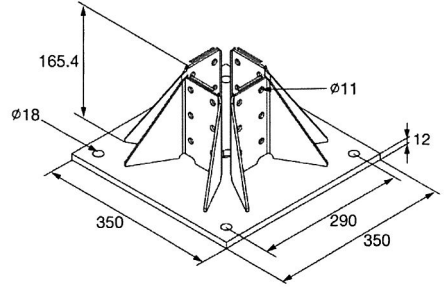
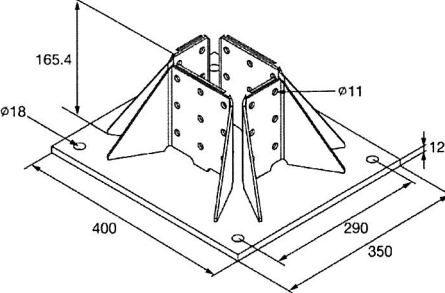
Product description

Shape, dimensions and materials of base connectors
MT-B-O4, MT-B-O4 OC and MT-B-GS T OC

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Table A4: Shape, dimensions and materials of MT-B-GS O4U OC, MT-B-GL O4 OC and MT-B-GXL O4 OC

Shape and dimensions [mm]	Item number	Designation	Material
	2272101	MT-B-GS O4U OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized
	2272103	MT-B-GL O4 OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized
	2272104	MT-B-GXL O4 OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized

HILTI base connectors of MT System

Product description

Shape, dimensions and materials of base connectors MT-B-GS O4U OC, MT-B-GL O4 OC and MT-B-GXL O4 OC

Annex A4

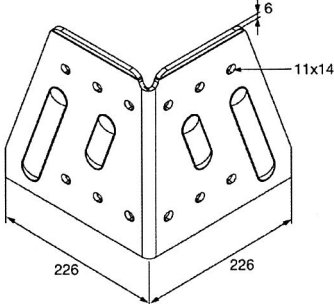
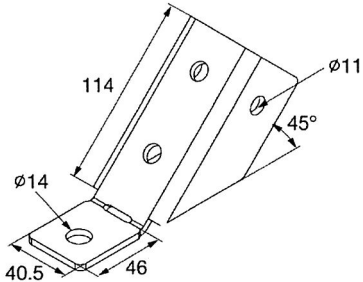
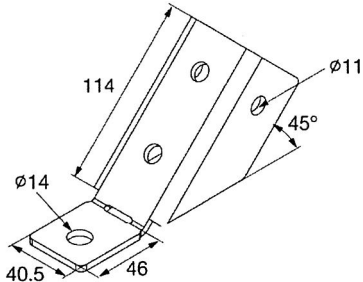
of European Technical Assessment ETA-21/1045

Table A5: Shape, dimensions and materials of MT-B-GXL S1 OC, MT-B-GXL S2 OC and MT-B-GXL S3 OC

Shape and dimensions [mm]	Item number	Designation	Material
	2272106	MT-B-GXL S1 OC,	Steel Q355B acc. to GB/T 1591; hot dip galvanized
	2272107	MT-B-GXL S2 OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized
	2272108	MT-B-GXL S3 OC	Steel Q355B acc. to GB/T 1591; hot dip galvanized

HILTI base connectors of MT System	Annex A5 of European Technical Assessment ETA-21/1045
<p style="text-align: center;">Product description</p> <p style="text-align: center;">Shape, dimensions and materials of base connectors MT-B-GXL S1 OC, MT-B-GXL S2 OC and MT-B-GXL S3 OC</p>	

Table A6: Shape, dimensions and materials of MT-B-G WS OC, MT-AB-L 45 and MT-AB-L 45 OC

Shape and dimensions [mm]	Item number	Designation	Material
	2272109	MT-B-G WS OC	Steel Q355B acc. to GB/T 1591; two component primer
	2272113	MT-AB-L 45	Steel Q235B acc. to GB/T 700; galvanized
	2272114	MT-AB-L 45 OC	Steel Q235B acc. to GB/T 700; hot dip galvanized

HILTI base connectors of MT System

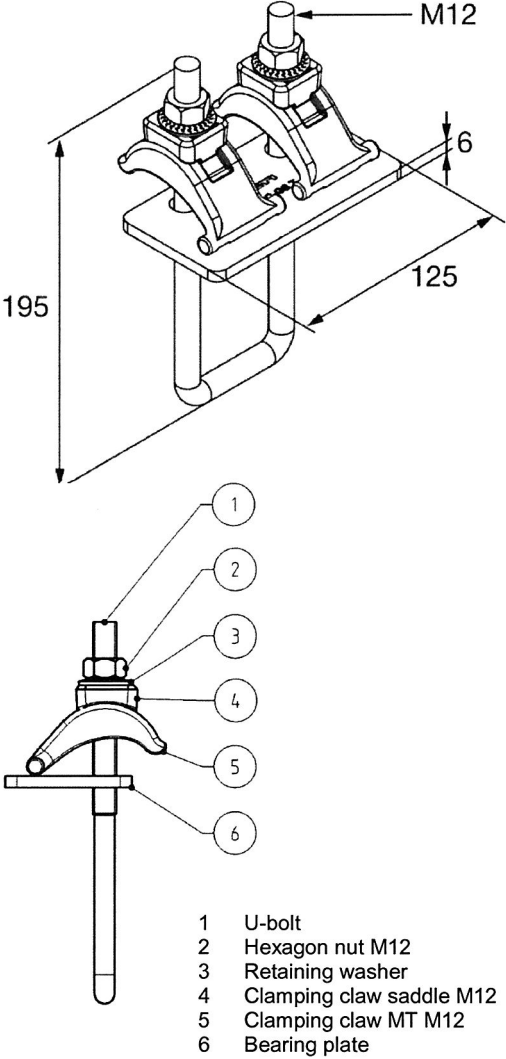
Product description

Shape, dimensions and materials of base connectors MT-B-G WS OC, MT-AB-L 45 and MT-AB-L 45 OC

Annex A6

of European Technical Assessment ETA-21/1045

Table A7: Shape, dimensions and materials of MT-BC-GS T OC

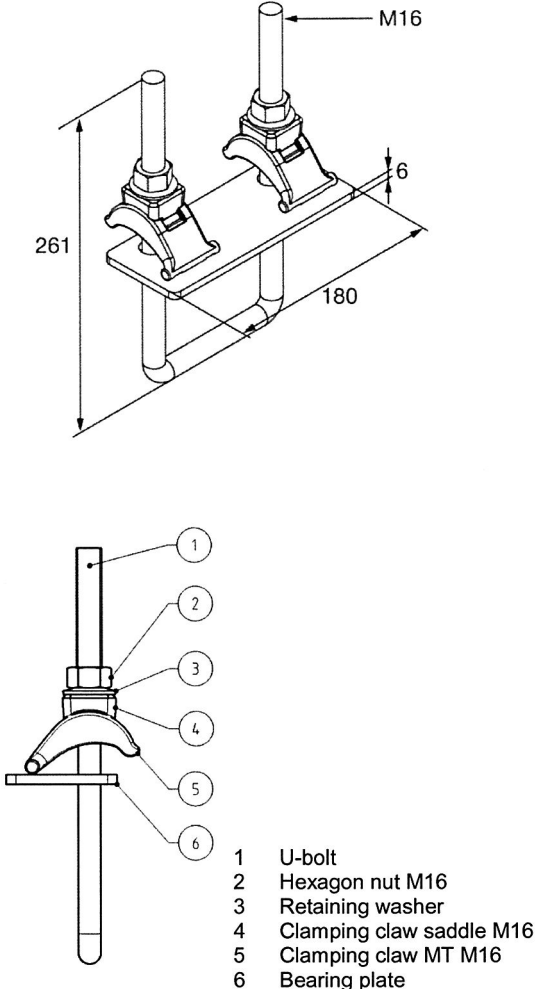
Shape and dimensions [mm]	Item number	Designation	Material
 <p>1 U-bolt 2 Hexagon nut M12 3 Retaining washer 4 Clamping claw saddle M12 5 Clamping claw MT M12 6 Bearing plate</p>	2273587	MT-BC-GS T OC	<p>U-bolt: strenght class 8.8 acc. to EN ISO 898-1 hot dip galvanized</p> <p>Hexagon nut M12: strength class 8 acc. to DIN 267-4</p> <p>Retaining washer: 65Mn acc. to GB/T 699</p> <p>Clamping claw saddle M12: QT400-15 acc. to GB/T 1348</p> <p>Clamping claw MT M12: QT400 acc. to GB/T 1348</p> <p>Bearing plate: Steel Q235B acc. to GB/T 700</p>

HILTI base connectors of MT System

Product description
Shape, dimensions and materials of base connectors
MT-BC-GS T OC

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of European
Technical Assessment
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Table A8: Shape, dimensions and materials of MT-BC-GXL T OC

Shape and dimensions [mm]	Item number	Designation	Material
 <p>1 U-bolt 2 Hexagon nut M16 3 Retaining washer 4 Clamping claw saddle M16 5 Clamping claw MT M16 6 Bearing plate</p>	2273589	MT-BC-GXL T OC	<p>U-bolt: streight class 8.8 acc. to EN ISO 898-1 hot dip galvanized</p> <p>Hexagon nut M16: strength class 8 acc. to DIN 267-4</p> <p>Retaining washer: 65Mn acc. to GB/T 699</p> <p>Clamping claw saddle M16: QT400-15 acc. to GB/T 1348</p> <p>Clamping claw MT M16: QT400-15 acc. to GB/T 1348</p> <p>Bearing plate: Q235B acc. to GB/T 700</p>

HILTI base connectors of MT System

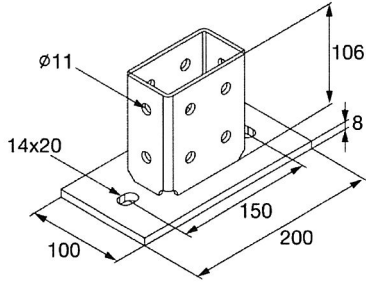
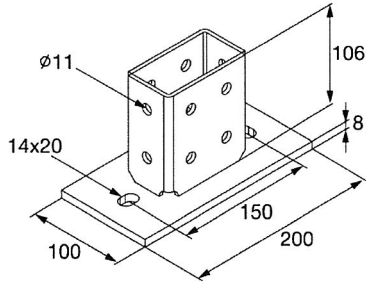
Product description

Shape, dimensions and materials of base connector MT-BC-GXL T OC

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Technical Assessment
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Table A9: Shape, dimensions and materials of MT-B-O2B and MT-B-O2B OC

Shape and dimensions [mm]	Item number	Designation	Material
	2282212	MT-B-O2B	Steel Q235B acc. to GB/T 700; galvanized
	2282213	MT-B-O2B OC	Steel Q235B acc. to GB/T 700; hot dip galvanized

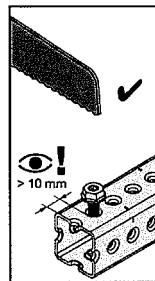
HILTI base connectors of MT System

Product description
Shape, dimensions and materials of base connector
MT-B-O2B and MT-B-O2B OC

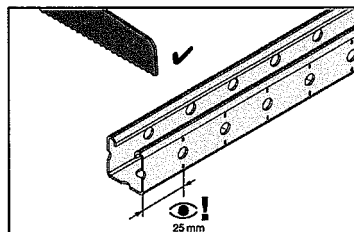
Annex A9
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Specification of intended use

- HILTI base connectors of MT System are used to transfer building services components loads such as ducts and equipment for water, heating, cooling, ventilation, electrical and other systems at ambient temperature.
HILTI MT base connectors are suitable for undertaking this load-bearing function under conditions described in Section 2 of this European Technical Assessment.
- The resistance of HILTI base connectors set down in Annex C1 to C9 applies for static actions in the direction of the main axes X, Y, Z in connection with HILTI installation channels MT system acc. to ETA-21/0414 and in combination with HILTI channel connectors acc. to ETA-21/1017, acc. to Annex B2 to B11.
- HILTI installation channels acc. to tables in Annex B2 to B11 used in combination with HILTI base connectors are cut to length centrally between the longholes or the roundholes at the channel marking.
- For close installation channels the distance between the end of the profile and start of the dome shaped hole has to be minimum 10 mm.



- For open installation channels the distance between the end of the channel and center of the first hole from channel end has to be minimum 25 mm.



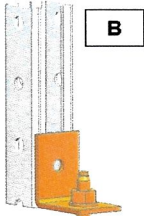
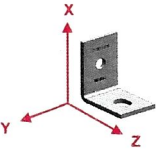
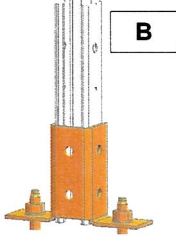
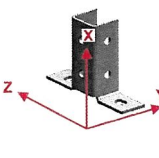
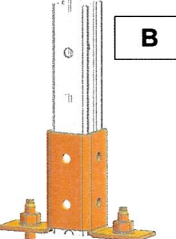
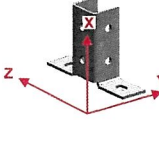
- The cross section and material properties of the installation channels combined with the base connectors acc. to Annex B2 to Annex B11 are in accordance with ETA-21/0414.
- For the channel connectors MT-TL M10 acc. to ETA-21/1017 a torque of 30 Nm applies.
- For the channel connectors MT-TL M10 OC acc. to ETA-21/1017 a torque of 40 Nm applies.
- For the channel connectors MT-TFB OC acc. to ETA-21/1017 a torque of 60 Nm applies.
- The required torques may be applied with electrical or non-electrical devices.

HILTI base connectors of MT System	Annex B1 of European Technical Assessment ETA-21/1045
Intended use Specification	

- The characteristic resistances in Tables C1 to C36 apply for the configurations described in Annex B2 to B11.
- Products differing in their designation only by the letters “OC” are interchangeable.
- The base connectors must be fixed to the base material with suitable fasteners through the openings provided for this purpose.
- Prior to installation, it must be ensured, the installation channel, the connection components, the fastening of the connectors to the base material and the base material itself, due to the load of the components to be supported, are suitable to withstand the resistance values of the base connectors.
- The base connectors must be installed by appropriately qualified personnel and under the supervision of the site manager. The installation instruction of the manufacturer applies.

HILTI base connectors of MT System	Annex B1 of European Technical Assessment ETA-21/1045
Intended use Specification	

Table B

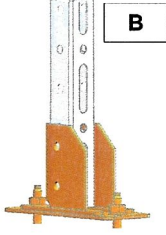
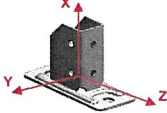
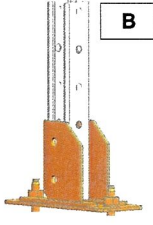
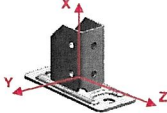
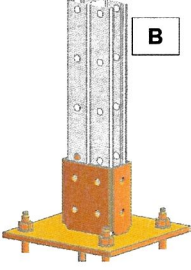
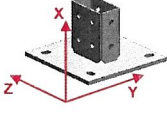
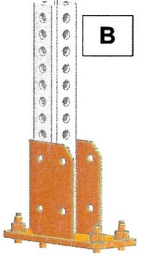
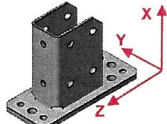
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
1		MT-B-L		Channel B: MT-30 S, MT-30, MT-40 S, MT-40, MT-50 S, MT-50, MT-60 S, MT-60, MT-40D S, MT-40D	1 x MT-TL M10
		MT-B-L OC		Channel B: MT-30 S OC, MT-30 OC, MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC, MT-60 S OC, MT-60 OC, MT-40D S OC, MT-40D OC	1 x MT-TL M10 OC
2		MT-B-T		Channel B: MT-30 S, MT-30, MT-40 S, MT-40, MT-50 S, MT-50, MT-60 S, MT-60, MT-40D S, MT-40D	2 x MT-TL M10
		MT-B-T OC		Channel B: MT-30 S OC, MT-30 OC, MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC, MT-60 S OC, MT-60 OC, MT-40D S OC, MT-40D OC	2 x MT-TL M10 OC
3		MT-B-T		Channel B: MT-30 S, MT-30, MT-40 S, MT-40, MT-50 S, MT-50, MT-60 S, MT-60	2 x MT-TL M10
		MT-B-T OC		Channel B: MT-30 S OC, MT-30 OC, MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC, MT-60 S OC, MT-60 OC	2 x MT-TL M10 OC

HILTI base connectors of MT System

Intended use
System configuration

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Table B, cont.

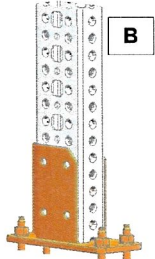
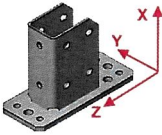
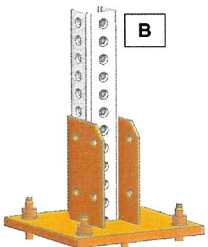
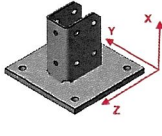
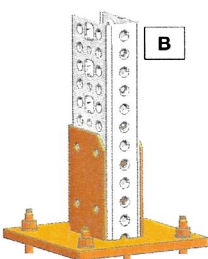
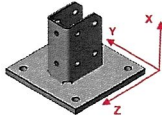
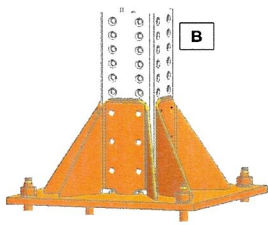
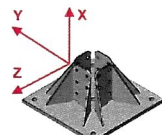
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
4		MT-B-O2		Channel B: MT-30 S, MT-30, MT-40 S, MT-40, MT-50 S, MT-50, MT-60 S, MT-60, MT-40D S, MT-40D	2 x MT-TL M10
		MT-B-O2 OC		Channel B: MT-30 S OC, MT-30 OC, MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC, MT-60 S OC, MT-60 OC, MT-40D S OC, MT-40D OC	2 x MT-TL M10 OC
5		MT-B-O2		Channel B: MT-30 S, MT-30, MT-40 S, MT-40, MT-50 S, MT-50, MT-60 S, MT-60	2 x MT-TL M10
		MT-B-O2 OC		Channel B: MT-30 S OC, MT-30 OC, MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC, MT-60 S OC, MT-60 OC	2 x MT-TL M10 OC
6		MT-B-O4		Channel B: MT-40D S, MT-40D	4 x MT-TL M10
		MT-B-O4 OC		Channel B: MT-40D S OC, MT-40D OC	4 x MT-TL M10 OC
7		MT-B-GS T OC		Channel B: MT-70 S OC, MT-70 OC	6 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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Table B, cont.

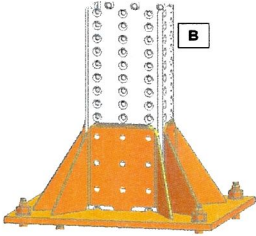
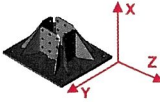
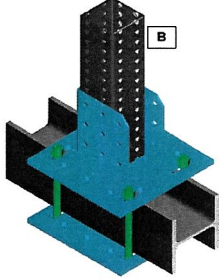
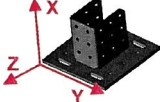
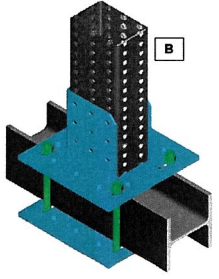
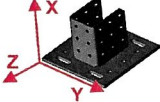
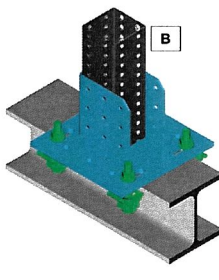
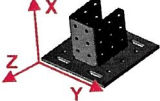
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
8		MT-B-GS T OC		Channel B: MT-80 S OC, MT-80 OC	10 x MT-TFB OC
9		MT-B-GS O4U OC		Channel B: MT-70 S OC, MT-70 OC	6 x MT-TFB OC
10		MT-B-GS O4U OC		Channel B: MT-80 S OC, MT-80 OC	10 x MT-TFB OC
11		MT-B-GL O4 OC		Channel B: MT-90 S OC, MT-90 OC	24 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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Technical Assessment
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Table B, cont.

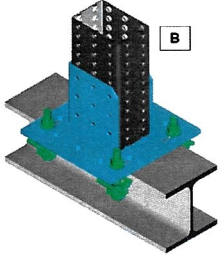
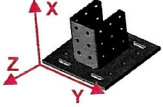
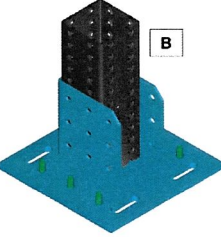
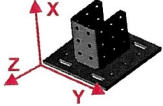
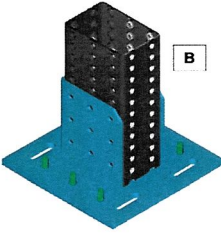
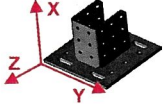
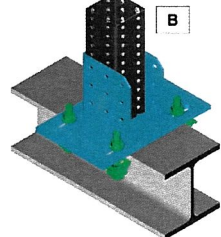
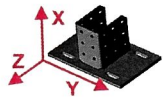
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
12		MT-B-GXL O4 OC		Channel B: MT-100 S OC, MT-100 OC	30 x MT-TFB OC
13		MT-B-GXL S1 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC
14		MT-B-GXL S1 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
15		MT-B-GXL S1 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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Technical Assessment
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Table B, cont.

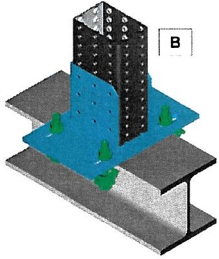
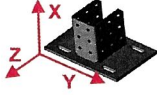
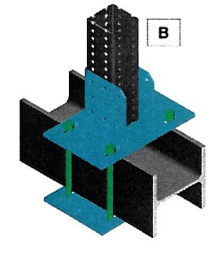
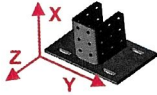
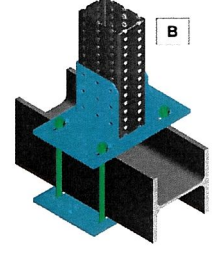
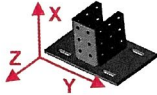
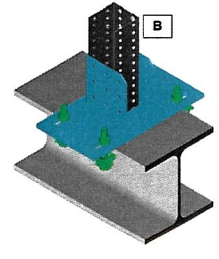
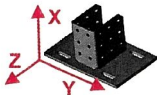
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
16		MT-B-GXL S1 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
17		MT-B-GXL S1 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC
18		MT-B-GXL S1 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
19		MT-B-GXL S2 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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Table B, cont.

No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
20		MT-B-GXL S2 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
21		MT-B-GXL S2 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC
22		MT-B-GXL S2 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
23		MT-B-GXL S3 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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of European
Technical Assessment
ETA-21/1045

Table B, cont.

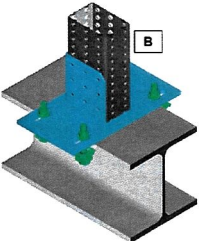
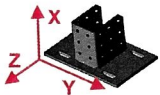
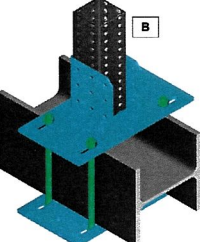
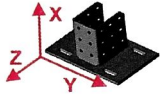
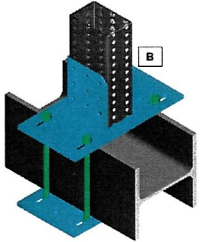
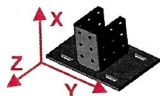
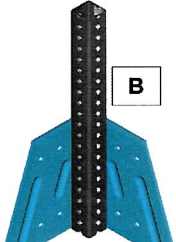
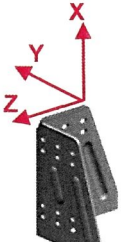
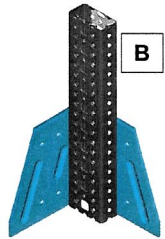
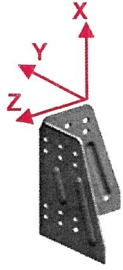
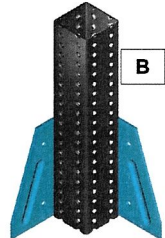
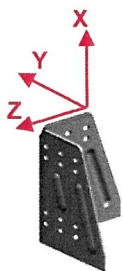
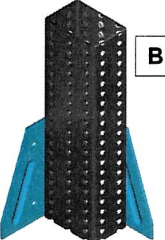
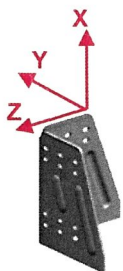
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
24		MT-B-GXL S3 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
25		MT-B-GXL S3 OC		Channel B: MT-90 S OC, MT-90 OC	18 x MT-TFB OC
26		MT-B-GXL S3 OC		Channel B: MT-100 S OC, MT-100 OC	24 x MT-TFB OC
27		MT-B-G WS OC		Channel B: MT-70 S OC, MT-70 OC	4 x MT-TFB OC
HILTI base connectors of MT System				Annex B8 of European Technical Assessment ETA-21/1045	
Intended use System configuration					

Table B, cont.

No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
28		MT-B-G WS OC		Channel B: MT-80 S OC, MT-80 OC	6 x MT-TFB OC
29		MT-B-G WS OC		Channel B: MT-90 S OC, MT-90 OC	8 x MT-TFB OC
30		MT-B-G WS OC		Channel B: MT-100 S OC, MT-100 OC	8 x MT-TFB OC

HILTI base connectors of MT System

Intended use
System configuration

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of European
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Table B, cont.

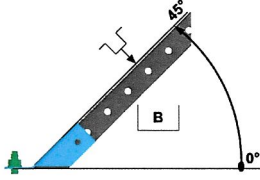
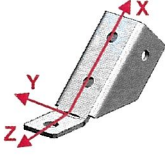
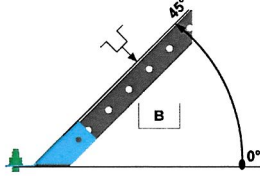
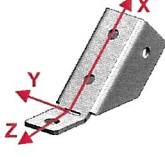
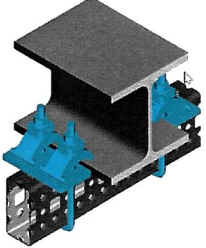
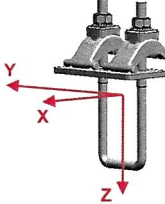
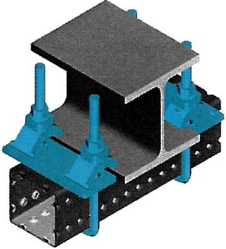
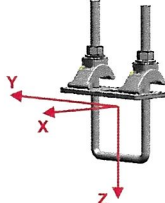
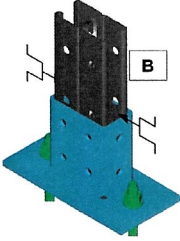
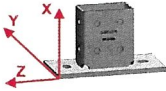
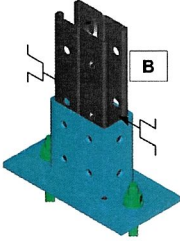
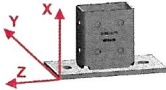
No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
31		MT-AB-L 45		Channel B: MT-40 S, MT-40, MT-50 S, MT-50	2 x MT-TL M10
32		MT-AB-L 45 OC		Channel B: MT-40 S OC, MT-40 OC, MT-50 S OC, MT-50 OC	2 x MT-TL M10 OC
33		MT-BC-GS T OC		Channel B: MT-70 S OC, MT-70 OC MT-80 S OC, MT-80 OC	-
34		MT-BC-GXL T OC		Channel B: MT-90 S OC, MT-90 OC MT-100 S OC, MT-100 OC	-
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Table B, cont.

No	System configuration	HILTI base connector	Static action directions	HILTI installation channels according to ETA-21/0414	Number and type of HILTI channel connectors according to ETA-21/1017
35		MT-B-O2B		Channel B: MT-40D S, MT-40D	4 x MT-TL M10
36		MT-B-O2B OC		Channel B: MT-40D S OC, MT-40D OC	4 x MT-TL M10 OC

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Table C1: Characteristic resistance of the base connectors MT-B-L and MT-B-L OC in connection with installation channels and channel connectors acc. to Annex B2, Table B, no. 1, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
6.85	10,59	0	0	0	0
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
0	0	0			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C2: Characteristic resistance of the base connectors MT-B-T and MT-B-T OC in connection with installation channels and channel connectors acc. to Annex B2, Table B, no. 2, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
10.99	12.6	1.61	1.61	0.88	0.88
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
7.85	8.97	5.28			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C3: Characteristic resistance of the base connectors MT-B-T and MT-B-T OC in connection with installation channels and channel connectors acc. to Annex B2, Table B, no. 3, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
11.43	12.6	0.88	0.88	4.93	4.93
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
7.85	8.97	5.28			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C4: Characteristic resistance of the base connectors MT-B-O2 and MT-B-O2 OC in connection with installation channels and channel connectors acc. to Annex B3, Table B, no. 4, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
17.89	14.0	2.43	2.43	7.34	7.34
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
6.02	171.71	23.28			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C5: Characteristic resistance of the base connectors MT-B-O2 and MT-B-O2 OC in connection with installation channels and channel connectors acc. to Annex B3, Table B, no. 5, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
12.60	12.60	2.43	2.43	7.34	7.34
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
6.02	87.64	9.69			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C6: Characteristic resistance of the base connectors MT-B-O4 and MT-B-O4 OC in connection with installation channels and channel connectors acc. to Annex B3, Table B, no. 6, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
17.64	17.64	5.0	5.0	26.92	26.92
$+/- M_{x, Rk}$ [kNcm]	$+/- M_{y, Rk}$ [kNcm]	$+/- M_{z, Rk}$ [kNcm]			
44.8	476.94	230.27			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C7: Characteristic resistance of the base connectors MT-B-GS T OC in connection with installation channels and channel connectors acc. to Annex B3, Table B, no. 7, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
36.79	74.40	20.04	20.04	26.83	26.4
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
0.921	1.857	2.125	1.48		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C8: Characteristic resistance of the base connectors MT-B-GS T OC in connection with installation channels and channel connectors acc. to Annex B4, Table B, no. 8, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
57.30	106.45	20.12	20.12	44.42	40.90
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.35	2.57	2.22	1.92		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C9: Characteristic resistance of the base connectors MT-B-GS O4U OC in connection with installation channels and channel connectors acc. to Annex B4, Table B, no. 9, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
133.78	167.42	26.42	26.42	42.53	29.65
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.22	2.3	2.76	2.13		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C10: Characteristic resistance of the base connectors MT-B-GS O4U OC in connection with installation channels and channel connectors acc. to Annex B4, Table B, no. 10, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
150.85	219.49	29.46	29.46	46.53	43.64
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
2.27	5.55	5.99	3.19		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C11: Characteristic resistance of the base connectors MT-B-GL O4 OC in connection with installation channels and channel connectors acc. to Annex B4, Table B, no. 11, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
201.97	360.72	91.12	91.12	91.12	91.12
$M_{x, Rk}$ [kNm]	$M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]			
9.53	13.33	13.33			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C12: Characteristic resistance of the base connectors MT-B-GXL O4 OC in connection with installation channels and channel connectors acc. to Annex B5, Table B, no. 12, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
240.43	638.28	144.67	144.67	154.18	154.18
$M_{x, Rk}$ [kNm]	$M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]			
16.87	32.28	23.22			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C13: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. to Annex B5, Table B, no. 13, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
183.31	385.34	42.86	42.86	35.74	35.64
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
6.08	12.34	12.81	12.72		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C14: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. Annex B5, Table B, no. 14, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
194.33	572.47	43.21	43.21	194.33	572.47
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
6.27	18.11	19.53	16.04		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C15: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. to Annex B5, Table B, no. 15, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
96.00	350.31	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.21	10.32	10.32	4.27		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C16: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. to Annex B6, Table B, no. 16, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
96.00	520.43	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.21	10.32	10.32	4.27		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C17: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. to Annex B6, Table B, no. 17, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
294.89	359.55	52.45	52.45	83.98	72.88
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
13.21	12.43	13.09	13.21		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C18: Characteristic resistance of the base connectors MT-B-GXL S1 OC in connection with installation channels and channel connectors acc. to Annex B6, Table B, no. 18, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
349.10	543.81	49.13	49.13	119.19	109.16
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
10.03	20.72	24.56	20.72		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C19: Characteristic resistance of the base connectors MT-B-GXL S2 OC in connection with installation channels and channel connectors acc. to Annex B6, Table B, no. 19, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
96.00	217.62	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.23	7.44	7.44	8.69		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C20: Characteristic resistance of the base connectors MT-B-GXL S2 OC in connection with installation channels and channel connectors acc. to Annex B7, Table B, no. 20, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
96.00	261.03	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.23	7.44	7.44	8.69		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C21: Characteristic resistance of the base connectors MT-B-GXL S2 OC in connection with installation channels and channel connectors acc. to Annex B7, Table B, no. 21, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
109.13	239.38	40.34	40.34	30.48	30.86
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
5.87	10.19	10.78	12.00		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C22: Characteristic resistance of the base connectors MT-B-GXL S2 OC in connection with installation channels and channel connectors acc. to Annex B7, Table B, no. 22, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
119.87	287.13	42.14	42.14	30.73	31.02
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
5.79	13.12	13.20	13.70		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C23: Characteristic resistance of the base connectors MT-B-GXL S3 OC in connection with installation channels and channel connectors acc. to Annex B8, Table B, no. 23, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
60.32	139.97	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.5	7.44	7.44	11.86		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C24: Characteristic resistance of the base connectors MT-B-GXL S3 OC in connection with installation channels and channel connectors acc. to Annex B8, Table B, no. 24, at ambient temperature

$+ F_{x, Rk}$ [kN]	$- F_{x, Rk}$ [kN]	$+ F_{y, Rk}$ [kN]	$- F_{y, Rk}$ [kN]	$+ F_{z, Rk}$ [kN]	$- F_{z, Rk}$ [kN]
65.82	159.65	10.31	10.31	10.31	10.31
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
1.50	7.44	7.44	11.86		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C25: Characteristic resistance of the base connectors MT-B-GXL S3 OC in connection with installation channels and channel connectors acc. to Annex B8, Table B, no. 25, at ambient temperature

$+F_{x, Rk}$ [kN]	$-F_{x, Rk}$ [kN]	$+F_{y, Rk}$ [kN]	$-F_{y, Rk}$ [kN]	$+F_{z, Rk}$ [kN]	$-F_{z, Rk}$ [kN]
66.35	153.97	40.76	40.76	29.02	29.30
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
5.14	8.38	8.65	10.09		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C26: Characteristic resistance of the base connectors MT-B-GXL S3 OC in connection with installation channels and channel connectors acc. to Annex B8, Table B, no. 26, at ambient temperature

$+F_{x, Rk}$ [kN]	$-F_{x, Rk}$ [kN]	$+F_{y, Rk}$ [kN]	$-F_{y, Rk}$ [kN]	$+F_{z, Rk}$ [kN]	$-F_{z, Rk}$ [kN]
72.41	175.61	41.67	41.67	29.23	29.36
$M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$M_{z, Rk}$ [kNm]		
4.93	10.02	8.96	11.05		

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C27: Characteristic resistance of the base connectors MT-B-G WS OC in connection with installation channels and channel connectors acc. to Annex B8, Table B, no. 27, at ambient temperature

$+F_{x, Rk}$ [kN]	$-F_{x, Rk}$ [kN]	$+F_{y, Rk}$ [kN]	$-F_{y, Rk}$ [kN]	$+F_{z, Rk}$ [kN]	$-F_{z, Rk}$ [kN]
74.51	74.51	21.06	21.06	21.06	21.06
$+M_{x, Rk}$ [kNm]	$-M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$+M_{z, Rk}$ [kNm]	$-M_{z, Rk}$ [kNm]
1.26	1.26	2.46	2.46	2.46	2.46

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C28: Characteristic resistance of the base connectors MT-B-G WS OC in connection with installation channels and channel connectors acc. to Annex B9, Table B, no. 28, at ambient temperature

$+F_{x, Rk}$ [kN]	$-F_{x, Rk}$ [kN]	$+F_{y, Rk}$ [kN]	$-F_{y, Rk}$ [kN]	$+F_{z, Rk}$ [kN]	$-F_{z, Rk}$ [kN]
105.39	105.39	34.84	34.84	19.48	19.48
$+M_{x, Rk}$ [kNm]	$-M_{x, Rk}$ [kNm]	$+M_{y, Rk}$ [kNm]	$-M_{y, Rk}$ [kNm]	$+M_{z, Rk}$ [kNm]	$-M_{z, Rk}$ [kNm]
1.86	1.86	3.87	3.87	6.82	6.82

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C29: Characteristic resistance of the base connectors MT-B-G WS OC in connection with installation channels and channel connectors acc. to Annex B9, Table B, no. 29, at ambient temperature

$+F_{x,Rk}$ [kN]	$-F_{x,Rk}$ [kN]	$+F_{y,Rk}$ [kN]	$-F_{y,Rk}$ [kN]	$+F_{z,Rk}$ [kN]	$-F_{z,Rk}$ [kN]
139.74	139.74	36.57	36.57	36.57	36.57
$+M_{x,Rk}$ [kNm]	$-M_{x,Rk}$ [kNm]	$+M_{y,Rk}$ [kNm]	$-M_{y,Rk}$ [kNm]	$+M_{z,Rk}$ [kNm]	$-M_{z,Rk}$ [kNm]
3.11	3.11	7.33	7.33	7.33	7.33

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C30: Characteristic resistance of the base connectors MT-B-G WS OC in connection with installation channels and channel connectors acc. to Annex B9, Table B, no. 30, at ambient temperature

$+F_{x,Rk}$ [kN]	$-F_{x,Rk}$ [kN]	$+F_{y,Rk}$ [kN]	$-F_{y,Rk}$ [kN]	$+F_{z,Rk}$ [kN]	$-F_{z,Rk}$ [kN]
143.72	143.72	29.62	29.62	50.98	50.95
$+M_{x,Rk}$ [kNm]	$-M_{x,Rk}$ [kNm]	$+M_{y,Rk}$ [kNm]	$-M_{y,Rk}$ [kNm]	$+M_{z,Rk}$ [kNm]	$-M_{z,Rk}$ [kNm]
5.16	5.16	10.34	10.34	8.55	8.55

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C31: Characteristic resistance of the base connectors MT-AB-L 45 in connection with installation channels and channel connectors acc. to Annex B10, Table B, no. 31, at ambient temperature

$+F_{x,Rk}$ [kN]	$-F_{x,Rk}$ [kN]	$+F_{y,Rk}$ [kN]	$-F_{y,Rk}$ [kN]	$+F_{z,Rk}$ [kN]	$-F_{z,Rk}$ [kN]
10.45	8.67	0	0	0	0
$M_{x,Rk}$ [kNcm]	$M_{y,Rk}$ [kNcm]	$M_{z,Rk}$ [kNcm]			
0	0	0			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C32: Characteristic resistance of the base connectors MT-AB-L 45 OC in connection with installation channels and channel connectors acc. Annex B10, Table B, no. 32, at ambient temperature

$+F_{x,Rk}$ [kN]	$-F_{x,Rk}$ [kN]	$+F_{y,Rk}$ [kN]	$-F_{y,Rk}$ [kN]	$+F_{z,Rk}$ [kN]	$-F_{z,Rk}$ [kN]
10.45	8.67	0	0	0	0
$M_{x,Rk}$ [kNcm]	$M_{y,Rk}$ [kNcm]	$M_{z,Rk}$ [kNcm]			
0	0	0			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

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Table C33: Characteristic resistance of the base connectors MT-BC-GS T OC in connection installation with channels acc. to Annex B10, Table B, no. 33, at ambient temperature

$+ F_{xj, Rk}$ [kN]	$- F_{xj, Rk}$ [kN]	$+ F_{yj, Rk}$ [kN]	$- F_{yj, Rk}$ [kN]	$+ F_{zj, Rk}$ [kN]	$- F_{zj, Rk}$ [kN]
29.78	29.78	12.2	12.2	75.96	75.96
$M_{xj, Rk}$ [kNcm]	$M_{yj, Rk}$ [kNcm]	$M_{zj, Rk}$ [kNcm]			
0	0	0			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C34: Characteristic resistance of the base connectors MT-BC-GXL T OC in connection with installation channels acc. to Annex B10, Table B, no. 34, at ambient temperature

$+ F_{xj, Rk}$ [kN]	$- F_{xj, Rk}$ [kN]	$+ F_{yj, Rk}$ [kN]	$- F_{yj, Rk}$ [kN]	$+ F_{zj, Rk}$ [kN]	$- F_{zj, Rk}$ [kN]
18.73	18.73	17.51	17.51	102.32	102.32
$M_{xj, Rk}$ [kNcm]	$M_{yj, Rk}$ [kNcm]	$M_{zj, Rk}$ [kNcm]			
0	0	0			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C35: Characteristic resistance of the base connectors MT-B-O2B in connection with installation channels and channel connectors acc. to Annex B11, Table B, no. 35, at ambient temperature

$+ F_{xj, Rk}$ [kN]	$- F_{xj, Rk}$ [kN]	$+ F_{yj, Rk}$ [kN]	$- F_{yj, Rk}$ [kN]	$+ F_{zj, Rk}$ [kN]	$- F_{zj, Rk}$ [kN]
17.64	17.64	5.0	5.0	26.92	26.92
$M_{xj, Rk}$ [kNcm]	$M_{yj, Rk}$ [kNcm]	$M_{zj, Rk}$ [kNcm]			
44.8	104.0	12.5			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Table C36: Characteristic resistance of the base connectors MT-B-O2B OC in connection with installation channels and channel connectors acc. to Annex B11, Table B, no. 36, at ambient temperature

$+ F_{xj, Rk}$ [kN]	$- F_{xj, Rk}$ [kN]	$+ F_{yj, Rk}$ [kN]	$- F_{yj, Rk}$ [kN]	$+ F_{zj, Rk}$ [kN]	$- F_{zj, Rk}$ [kN]
17.64	17.64	5.0	5.0	26.92	26.92
$M_{xj, Rk}$ [kNcm]	$M_{yj, Rk}$ [kNcm]	$M_{zj, Rk}$ [kNcm]			
44.8	104.0	12.5			

For performance of installation channels and channel connectors see ETA-21/0414 and ETA-21/1017

Partial safety coefficients (provided that no other national regulations apply):

Steel: $\gamma_{M0} = 1.0$, $\gamma_{M1} = 1.1$, $\gamma_{M2} = 1.25$ in case of calculations or $\gamma_M = F_{Rk} / F_{Rd}$ in case of determining characteristic and designed values based on tests.

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