



ETA-Danmark A/S
Göteborg Plads 1
DK-2150 Nordhavn
Tel. +45 72 24 59 00
Internet www.etadanmark.dk

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to Article 29 of the Regulation (EU)
No 305/2011 of the European
Parliament and of the Council of 9
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MEMBER OF EOTA



European Technical Assessment ETA-24/0262 of 2024/06/13

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

MEFA CENTUM T-Lock and T-Lock plus M12x40

Product family to which the above construction product belongs:

Installation systems for supporting technical building equipment

Manufacturer:

MEFA Befestigungs- und Montagesysteme GmbH
Schillerstrasse 15
D-74635 Kupferzell
Germany

Manufacturing plant:

MEFA Befestigungs- und Montagesysteme GmbH
Kubacher Strasse 2
D-74635 Kupferzell
Germany

This European Technical Assessment contains:

10 pages including 3 annexes which form an integral part of the document

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

EAD 280016-00-0602, "Products for installation systems for supporting technical building equipment"

This version replaces:

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (except the confidential Annexes referred to above). However, partial reproduction may be made, with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.

II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

MEFA CENTUM T-Lock and T-Lock plus are screws connection for the CENTUM XL 80 to XL 200 rail system with connecting components.

The screw connection consists of a special hammer head screw with blades, a washer with blades and a nut. During assembly, the blades press into the profile rail and the attachment and create a positive fit.

T-Lock plus has a flattened side of the locking washer which in combination with the removed thread of the hammer bolt on one side serves as an anti-twist device. T-Lock exhibits a locking washer with round hole and a hammer bolt with complete thread.

Annex A describes the shape and dimensions of the channel connector.

Annex B describes the material of the channel connector.

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

The performance given in Section 3 can only be assumed if the MEFA CENTUM T-Lock and T-Lock plus channel connectors are used in compliance with the specifications and under boundary conditions set out in Annex B.

The test and assessment methods on which this European Technical Assessment is based lead to an assumption of a working life of the MEFA CENTUM T-Lock and T-Lock plus of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the 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 channel connectors 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,
- components of fixed fire-fighting systems.

The product is intended to be used where failure or excessive deformation of the installation systems would lead to an unacceptable risk of accidents or damage in service or in operation (BWR 4).

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

Characteristic	Assessment of characteristic
3.1 Safety in case of fire (BWR2)	
Reaction to fire	Class A1
Pull-out resistance under fire exposure	No performance assessed
Shear resistance under fire exposure	No performance assessed
3.3 Safety and accessibility in use (BWR4)	
Shape	See Annex A
Dimensions	See Annex A
Material	See Annex B
Characteristic pull-out resistance	See Annex C
Characteristic shear resistance	See Annex C

See additional information in section 3.4.

3.4 General aspects related to the performance of the product.

The European Technical Assessment is issued for the product on the basis of agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The assessment of fitness of the channel for the intended use in relation to the requirements for safety in case of fire and safety and accessibility in use in the sense of the Basic Requirements 2 and 4 has been made in accordance with EAD 280016-00-0602, “Products for installation systems for supporting technical building equipment”.

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

4.1 AVCP system

In accordance with the European Assessment Document EAD 280016-00-0602 the applicable European legal act is:

For products for installation systems intended to be used for supporting pipes for the transport of water not intended for human consumption the applicable European legal act is Commission Decision 1999/472/EC, as amended by Commission Decision 2001/596/EC.

The system to be applied is 4. This includes uses that are subject to regulations on reaction to fire performance because the performance of the product is class A1 without the need to be tested for reaction to fire.

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 the applicable European legal act is Commission Decision 1999/472/EC, as amended by Commission Decision 2001/596/EC.

The system to be applied is 3.

For products for installation systems intended to be used for supporting technical building equipment in general the applicable European legal act is Commission Decision 97/161/EC. The system to be applied is 2+.

For products for installation systems intended to be used for supporting components of fixed fire-fighting systems the applicable European legal act is Commission Decision 96/577/EC, as amended by Commission Decision 2002/592/EC.

The system to be applied is 1.

5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD.

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2024-06-13 by



Thomas Bruun
Managing Director, ETA-Danmark

Figure A1.1: Shape and dimension of MEFA CENTUM T-Lock:

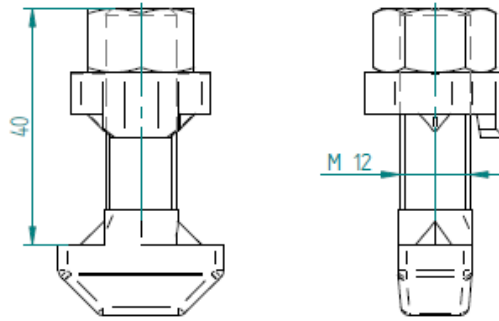


Figure A1.2: Shape and dimension of MEFA CENTUM T-Lock Plus:

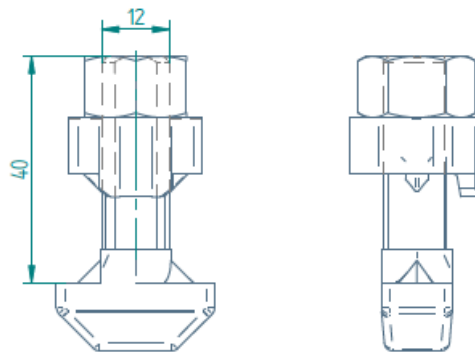
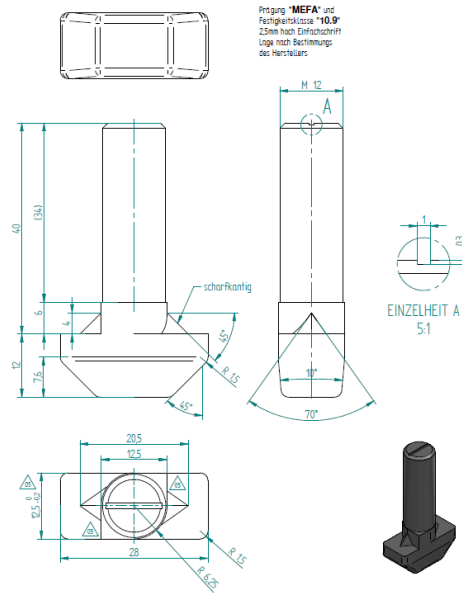


Figure A1.2: Shape and dimension of head



MEFA CENTUM T-Lock and T-Lock plus

Annex A1

Shape and dimensions

Table B1: Item and material information of MEFA CENTUM T-Lock and T-Lock Plus:

name		item number	strength class	standard
T-Lock	hammer bolt M12x40	1610011000	10.9	EN ISO 898-1
	lock washer		10	EN ISO 898-2
	hexagon nut M12		10	EN ISO 898-2
T-Lock plus	hammer bolt M12x40	1610011001	10.9	EN ISO 898-1
	lock washer		10	EN ISO 898-2
	hexagon nut M12		10	EN ISO 898-2

Strength class 10 corresponds to a tensile strength R_m of 1000N/mm², which in accordance with EN ISO 18265 has a Vickers hardness of at least 300 HV

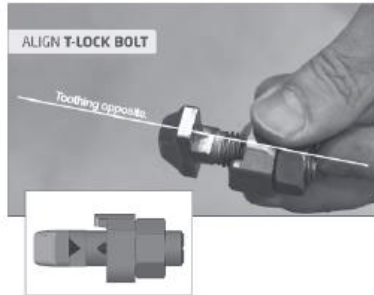
MEFA CENTUM T-Lock and T-Lock plus

Material of channel connectors

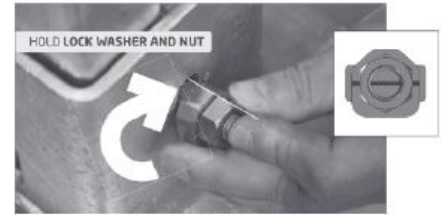
Annex B1

Table B2.1: Installation instructions of MEFA CENTUM T-Lock

Positioning:



Insert T-lock through component and profile, position as required.

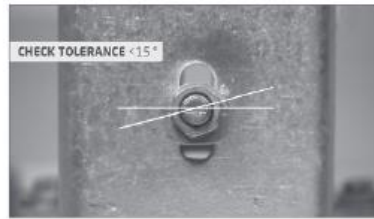


Turn T-lock 90° (marking notch stands diagonally to the elongated hole).

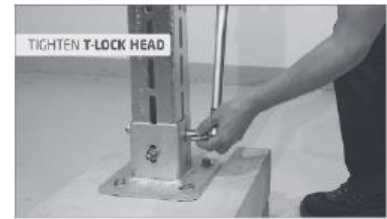
Adjustment:



Tilt T-lock forward, so that guide wedge of Lock washer snaps in elongated hole. Then tighten by screwing the nut (hand-tight).



Fixation:



Wrench size 19 mm.
Recommended torque XL 80: 90 Nm.
Recommended torque XL 100: 120 Nm.
 T-lock must not be used again after dismantling.

Table B2.2: Installation instructions of MEFA CENTUM T-Lock Plus (with anti-twist device)



Insert T-lock plus through component and profile, position as required.



Tilt T-lock plus forward, so that guide wedge of Lock washer snaps in elongated hole. Then tighten by screwing the nut (hand-tight).

Fixation:



Wrench size 19 mm.
Recommended torque XL 80: 90 Nm.
Recommended torque XL 100: 120 Nm.

T-lock plus must not be used again after dismantling.

MEFA CENTUM T-Lock and T-Lock plus

Installation instructions

Annex B2

Table C1.1: Characteristic pull-out resistance under ambient conditions

channel	calculated			recommended	
	X_k [kN]	X_d [kN]	γ_m [-]	X_d [kN]	γ_m [-]
XL 80	13.51	11.41	1.18	10.81	1.25
XL 100	16.14	14.17	1.14	12.91	1.25
XL 120					
XL 120s					
XL 200					

Table C1.2: Characteristic shear resistance in the longitudinal direction of the channel under ambient conditions

channel	calculated			recommended	
	X_k [kN]	X_d [kN]	γ_m [-]	X_d [kN]	γ_m [-]
XL 80	32.02	26.27	1.22	25.62	1.25
XL 100					
XL 120					
XL 120s					
XL 200					

Table C1.3: Characteristic shear resistance perpendicular to the longitudinal direction of the channel under ambient conditions

channel	calculated			recommended	
	X_k [kN]	X_d [kN]	γ_m [-]	X_d [kN]	γ_m [-]
XL 80	24.57	22.85	1.08	19.66	1.25
XL 100					
XL 120					
XL 120s					
XL 200					

MEFA CENTUM T-Lock and T-Lock plus

Characteristic resistances

Annex C1