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European Technical Assessment Body  
for construction products



## European Technical Assessment

ETA-24/0180  
of 19. August 2024

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

PILA-mounting channels QL40/1,5/1N, Q100/2,5/2N and Q150/2,5/3N

Product family to which the construction product belongs

Products for installation systems for supporting technical building equipment.

Manufacturer

Karl Lausser GmbH  
Hauptstraße 20, Pilgramsberg  
94372 Rattiszell  
DEUTSCHLAND

Manufacturing plant

Welser Profile GmbH,  
Prochenberg 24,  
A-3341 Ybbsitz (Österreich)

This European Technical Assessment contains

8 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

EAD 280016-00-0602 (Version 07/2020)

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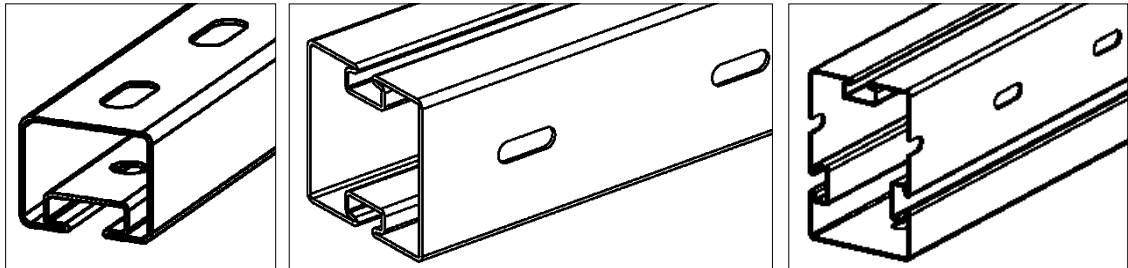
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## Specific part

### 1 Technical description of the product

PILA mounting channels QL40/1.5/1N, Q100/2.5/2N and Q150/2.5/3N are rectangular hollow profiles bent from sheet steel and welded in the longitudinal direction with at least one groove in the longitudinal direction. Additional components, such as pipe clamps, can be attached to this groove in the longitudinal direction using the corresponding sliding blocks. Some of the rails also have punched oblong and round holes on the sides, on the back of the rail and in the groove, to which components can also be attached using screw connections.



figures 1a, 1b und 1c:

Channel QL40/1,5/1N

Channel Q100/2,5/2N

Channel Q150/2,5/3N

The channel QL40/1.5/1N rail (Figure 1a) has a perforated groove and is made of 1.5 mm thick sheet steel S250GD + 275 MAC (1.0242) in accordance with DIN EN 10326:2004. The sheet steel is sendzimir galvanized with a zinc layer thickness of 20 µm. There is no zinc layer along the weld seam due to the manufacturing process.

The channel Q100/2.5/2N rail (Figure 1b) has two lateral unperforated grooves and is made of 2.5 mm thick sheet steel S235JR (1.0038) in accordance with DIN EN 10025-2:2004. The finished channel is hot-dip galvanized in accordance with DIN EN ISO 1461:2009 with a zinc coating thickness of 50 µm.

The channel Q150/2.5 (Figure 1c) has three lateral unperforated grooves and is made of 2.5 mm thick sheet steel S235JR (1.0038) in accordance with DIN EN 10025-2:2004. The finished channel is hot-dip galvanized in accordance with DIN EN ISO 1461:2009 with a zinc coating thickness of 50 µm.

The exact dimensions of the channels are shown in the annex.

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

The products for installation systems are intended for use in dry indoor conditions for supporting:

- a) components of fixed fire-fighting systems
- b) technical building equipment in general
- c) pipes for the transport of water not intended for human consumption
- d) pipes for the transport of gas/fuel intended for the supply of building heating/cooling systems

The products for installation systems are intended to be used where failure or excessive deformation of the installation systems would

- compromise safety in the event of fire (BWR 2) or
- would lead to an unacceptable risk of accidents or damage in service or in operation (BWR 4)

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the product of at least 50 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		
		QL40/1,5/1N	Q100/2,5/2N	Q150/2,5/3N
1	Reaction to fire	class A1		
2	Pull-through resistance of channel back holes under fire exposure	NPA (no performance assessed)		
3	Bending characteristics under fire exposure	NPA (no performance assessed)		

### 3.2 Safety and accessibility in use (BWR 4)

Essential characteristic		Performance		
		QL40/1,5/1N	Q100/2,5/2N	Q150/2,5/3N
4	Shape	Rectangular hollow profile with groove(s)		
5	Dimensions Width, height, sheet-thickness [mm]	50 x 40 x 1,5	100 x 100 x 2,5	100 x 150 x 2,5
6	Material	Steel S250GD	Steel S235JR	
	cross-section characteristics	siehe Annex 1	siehe Annex 2	siehe Annex 3
7	Pull-through resistance of channel back holes	NPA (no performance assessed)		

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

In accordance with the European Assessment Document EAD 280016-00-0602, the following legal bases apply for assessment and verification of constancy of performance:

Intended use	System	Legal base, decision of EU-Commission
a) For the support of fire-fighting systems	1	96/577/EC, amended 2002/592/EC
b) For the support of technical building equipment in general	2+	97/161/EC
c) For supporting pipes for the transport of water not intended for human consumption	4	1999/472/EC, amended 2001/596/EC
d) For supporting pipes for the transport of gas/fuel intended for the supply of building heating/cooling systems	3	

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

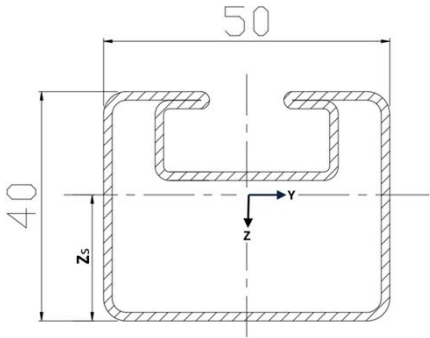
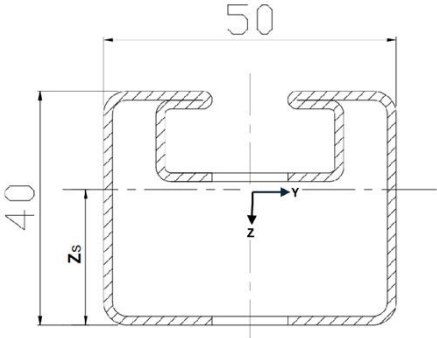
No technical details are stored, the specifications from EAD 280016 00 0602, chapter 3 apply.

Issued in Berlin on 20 August 2024 by Deutsches Institut für Bautechnik

Dr.-Ing. Ronald Schwuchow  
Head of Section

*beglaubigt:*  
Ascher

**Table 1: Pila mounting channel QL40/1,5/1N**

Cross-section	<p style="text-align: center;">unperforated</p> 	<p style="text-align: center;">perforated</p> 
Dimensions	Width: 50mm, height: 40mm sheet thickness: 1,5mm 1 groove	
Cross-section-area	336 mm <sup>2</sup>	297 mm <sup>2</sup>
Position of the center of gravity	$y_s = 0 \text{ mm}$ $z_s = 22,01 \text{ mm}$	$y_s = 0 \text{ mm}$ $z_s = 23,19 \text{ mm}$
Area moments of inertia	$I_y = 69.968 \text{ mm}^4$ $I_z = 105.524 \text{ mm}^4$	$I_y = 60.530 \text{ mm}^4$ $I_z = 104.975 \text{ mm}^4$
Bending resistance moments	$W_y = 3.180 \text{ mm}^3$ $W_z = 4.221 \text{ mm}^3$	$W_y = 2.610 \text{ mm}^3$ $W_z = 4.199 \text{ mm}^3$
PILA-Montageschienen QL40/1,5/1N, Q100/2,5/2N und Q150/2,5/3N		Annex 1
Cross-section-characteristics		

**Table 2: Pila mounting channel Q100/2,5/2N**

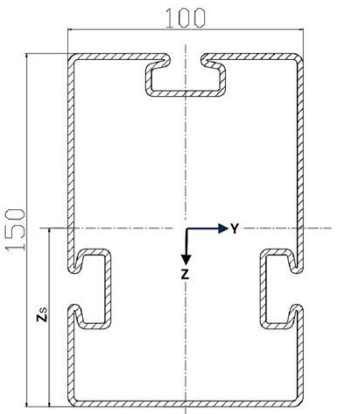
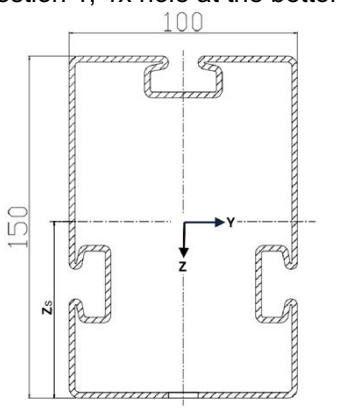
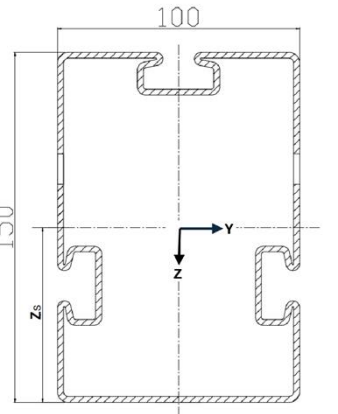
Cross-section	unperforated	perforated
Dimensions	Width: 100 mm, high: 100 mm sheet thickness 2,5 mm 2 grooves	
Cross-section-area	1.237 mm <sup>2</sup>	1.172 mm <sup>2</sup>
Position of the center of gravity	$y_s = 0$ mm $z_s = 50$ mm	$y_s = 0$ mm $z_s = 50$ mm
Area moments of inertia	$I_y = 1.852.097$ mm <sup>4</sup> $I_z = 1.560.993$ mm <sup>4</sup>	$I_y = 1.851.367$ mm <sup>4</sup> $I_z = 1.411.284$ mm <sup>4</sup>
Bending resistance moments	$W_y = 37.042$ mm <sup>3</sup> $W_z = 31.220$ mm <sup>3</sup>	$W_y = 37.027$ mm <sup>3</sup> $W_z = 28.226$ mm <sup>3</sup>

PILA-Montageschienen QL40/1,5/1N, Q100/2,5/2N und Q150/2,5/3N

Cross-section-characteristics

Annex 2

**Table 3: Pila mounting channels Q150/2,5/3N**

Cross-section	unperforated 	perforated (Position 1, 1x hole at the bottom) 	gelocht (Position 2, 2x holes on the side) 
Dimensions	Weight: 100 mm, height: 150 mm Sheet thickness 2,5 mm 3x grooves		
Cross-section-area	1.626 mm <sup>2</sup>	1.593 mm <sup>2</sup>	1.561 mm <sup>2</sup>
Position of the center of gravity	y <sub>s</sub> = 0 mm z <sub>s</sub> = 75,90 mm	y <sub>s</sub> = 0 mm z <sub>s</sub> = 77,42 mm	y <sub>s</sub> = 0 mm z <sub>s</sub> = 74,90 mm
Area moments of inertia	I <sub>y</sub> = 5.017.124 mm <sup>4</sup> I <sub>z</sub> = 2.466.262 mm <sup>4</sup>	I <sub>y</sub> = 4.841.337 mm <sup>4</sup> I <sub>z</sub> = 2.465.804 mm <sup>4</sup>	I <sub>y</sub> = 4.970.928 mm <sup>4</sup> I <sub>z</sub> = 2.311.751 mm <sup>4</sup>
Bending resistance moments	W <sub>y</sub> = 66.102 mm <sup>3</sup> W <sub>z</sub> = 49.325 mm <sup>3</sup>	W <sub>y</sub> = 62.531 mm <sup>3</sup> W <sub>z</sub> = 49.316 mm <sup>3</sup>	W <sub>y</sub> = 66.187 mm <sup>3</sup> W <sub>z</sub> = 46.235 mm <sup>3</sup>

Cross-section-characteristics

PILA-mounting channels QL40/1,5/1N, Q100/2,5/2N and Q150/2,5/3N

Annex 3