Technical data sheet

EGCL
End Grain Connector Light

Features

Material

- Joist plate: 8mm aluminium
- Header plate: 8mm aluminium

Benefits

- Concealed connection
- Multiple applications
- Extrem small connetor

Applications

Suitable on

- Solid timber
- Glulam

For use with

- Timber to timber connections only
- Facades

Installation

Mounting connectors EGCL is simplified by the use of a jig available on stock.
The slot can be routed by using a Ø16mm cutter with Ø30mm washer.

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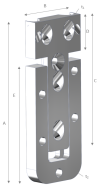
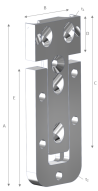
Dimensions

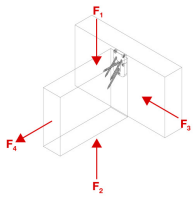


References	dimensions [mm]						no. of holes			Weight [kg]
	A	B	C	D	E	$t_1 = t_2$	U-part Ø5	T-part Ø4		
							90°	45°	90°	
EGCL60	61	35	48	21	40	8	3	3 + 2	1	0.039
EGCL90	89	35	76	21	68	8	5	4 + 2	1	0.058
EGCL120	117	35	104	21	96	8	7	5 + 2	1	0.076

Except for the two optional uplift screws, fill all screw holes with screws.
To prevent rotation and to absorb uplifting, lateral and axial loads, two optional fully threaded screws are inserted from the joist through the connector into the header.

Characteristic capacities - Timber beam to timber beam





References	Characteristic capacities - Timber Beam to timber beam								
	Fastener qty		min. dimensions - Joist [mm]		Characteristic capacities - Timber C24 [kN]				
	Header / post	Joist	b	h	$R_{1,k}$		$R_{2,k}$	$R_{3,k}$	$R_{4,k}$
	CSA 5,0x40	TTUFS 4,0x60 (No.77616)			Joist width				
					≥40mm	≥60mm			
EGCL60	3	4	40	100	5.3	6.7	3.1	1.5	2.3
EGCL90	5	5	40	120	5.9	8.9	3.6	1.8	3.1
EGCL120	7	6	40	150	7.5	11.1	4.2	2.2	3.9

The specified values apply to the minimum dimensions of the joist.
For larger cross-sections and different screws, observe the specifications of the respective ETA.
If the force is only in the F1 direction, the two optional screws from above can be left out.

$$\sum \frac{F_{i,d}}{R_{i,d}} \leq 1$$

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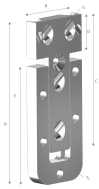

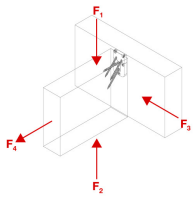

Characteristic capacities - R_3,k - incl. reinforcement screws

References	Reinforcing screws in the joint Full thread screw 4,0x l *	Characteristic capacities - $R_{3,k}$ [kN] - depending of min. dimensions of joist [mm]					
		high	width				
			40	50	60	70	80
EGCL60	3	100	2.6	3.3	3.9	4.6	5.2
EGCL90	3	120	3.1	3.9	4.7	5.2	6.2
EGCL120	4	150	3.9	4.9	5.9	6.8	7.8

* The reinforcement screws are countersunk screws with full thread and must be selected according to the joist width:
40-60 mm (joist width) = screw length max. 5 mm and l_g max. 10 mm shorter than joist width
70-80 mm (joist width) = screw length max. 10 mm and l_g max. 20 mm shorter than joist width

Installation

Fasteners

- On header, CSA Ø5mm according to ETA-04/0013: The CSA screws are screwed in perpendicular (90°) to the connector.
- On joist, TTUFS Ø4mm (full thread) according to ETA-21/0670: The TTUFS screws are inserted 45° to the connector. Except one TTUFS in the middle of the joist (male part), which is inserted into the joist perpendicular to the connector, this one is also used as an installation help.