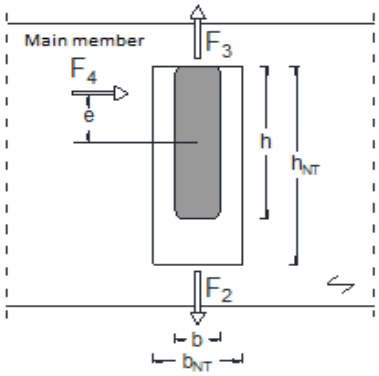
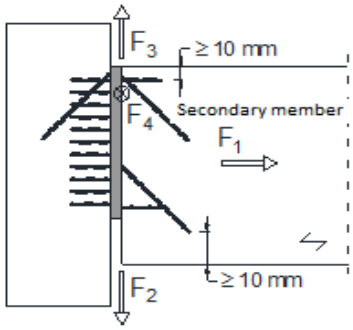
GH - Top UV20

ETA 11/0036





For further design notes, refer to UV connectors in general, structural calculations

Dimensions
Timber-to-timber 40x70x16

Characteristic resistances per connector in kN All holes filled with screws

				Screws 45°		
				4x50	4x60	4x70
Screws 90°	5x50	$F_{1,Rk}$		1,45	1,45	1,45
		$F_{2,Rk}$		**8,40**	**9,67**	**12,2**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	e = 0 mm	5,06	5,20	5,49
			e = 35 mm	1,75	1,80	1,90
	5x60	$F_{1,Rk}$		1,76	1,76	1,76
		$F_{2,Rk}$		**8,40**	**9,67**	**12,2**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	e = 0 mm	5,06	5,20	5,49
			e = 35 mm	1,75	1,80	1,90
	5x70	$F_{1,Rk}$		2,08	2,08	2,08
		$F_{2,Rk}$		**8,40**	**9,67**	**12,2**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	e = 0 mm	5,06	5,20	5,49
			e = 35 mm	1,75	1,80	1,90
Minimum height of secondary member in mm				100	105	115
Minimum width of secondary member in mm				45		
Resistance design value: $F_{i,Rd} = F_{i,Rk} \cdot k_{mod} / \gamma_{M,Timber}$ where $\gamma_{M,Timber} = 1.3$						
Table values apply to partially threaded screws with the following thread lengths and pullout parameters: 4x50: lg = 33 mm, 4x60: lg = 38 mm, 4x70: lg = 48 mm, fax,k = 12 N/mm² (ra = 350 kg/m³)						

Characteristic resistances per connector in kN, partially screwed

				Screws 45°		
				4x50	4x60	4x70
Screws 90°	5x50	$F_{1,Rk}$		1,45	1,45	1,45
		$F_{2,Rk}$		**5,60**	**6,45**	**8,15**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	**e = 0 mm**	**3,79**	**3,90**	**4,12**
			e = 35 mm	1,52	1,57	1,65
	5x60	$F_{1,Rk}$		1,76	1,76	1,76
		$F_{2,Rk}$		**5,60**	**6,45**	**8,15**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	**e = 0 mm**	**3,79**	**3,90**	**4,12**
			e = 35 mm	1,52	1,57	1,65
	5x70	$F_{1,Rk}$		2,08	2,08	2,08
		$F_{2,Rk}$		**5,60**	**6,45**	**8,15**
		$F_{3,Rk}$		1,40	1,61	2,04
		$F_{4,Rk}$	**e = 0 mm**	**3,79**	**3,90**	**4,12**
			e = 35 mm	1,52	1,57	1,65
Minimum height of secondary member in mm				100	105	115
Minimum width of secondary member in mm				45		
Resistance design value: $F_{i,Rd} = F_{i,Rk} \cdot k_{mod} / \gamma_{M,Timber}$ where $\gamma_{M,Timber} = 1.3$						
Table values apply to partially threaded screws with the following thread lengths and pullout parameters: 4x50: lg = 33 mm, 4x60: lg = 38 mm, 4x70: lg = 48 mm, fax,k = 12 N/mm² (ra = 350 kg/m³)						