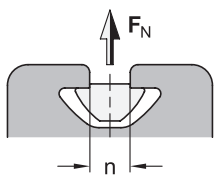
Mechanical Data (in Extrusion Direction)

- Material: Al Mg Si 0.5 F25 (EN AW – 6063)
- Delivery condition: Artificially aged
- Anodized coating: E6EV1 (natural color), layer thickness: 10 µm
- Dimensional deviations as per DIN EN 12020-2
- Tensile strength R_m min. 245 N/mm²
- Yield point $R_{p0,2}$ min. 195 N/mm²
- Density 2.7 kg/dm³
- Linear expansion coefficient 23,6x10^{-6} 1/k
- Modulus of elasticity E ≈ 70,000 N/mm²
- Hardness ≈ 75HB -2.5/187.5

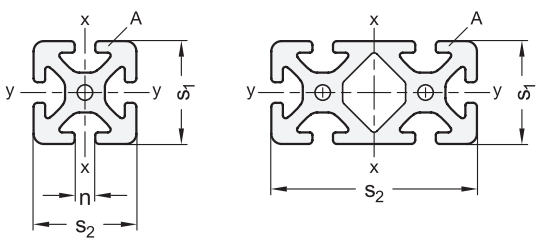
Permissible Tensile Load on the Slot



n	Grid size	Profile type	F_N* in N With T-nuts GN 50i		
			Type N	Type V	Type S
6	30	Light	3000	3000	-
8	40	Light	7500	5500	-
8	40	Heavy	15000	15000	19000

* Depending on the thread size of the T-nut

Cross-Section Properties



W_x , W_y = Axial resistance torque against bending

I_x, I_y = 2nd moment of area against bending

I_t = 2nd moment of area against torsion

A = Cross-section area

m = Length-related mass

GN 10i Profile type light

s_1	s_2	n	Grid size	Bending axis x-x		Bending axis y-y		I_t	A	m ≈
				I_x in cm⁴	W_x in cm³	I_y in cm⁴	W_y in cm³	in cm⁴	in cm²	in kg/m
30	30	6	30	2,9	1,94	2,9	1,94	0,3	3,43	0,93
30	60	6	30	21,2	7,07	5,54	3,69	3,18	6,13	1,65
60	60	6	30	39,5	13,2	39,5	13,2	21,5	10,0	2,7
40	40	8	40	9,1	4,55	9,1	4,55	1,36	6,47	1,75
40	80	8	40	70,2	17,6	16,8	8,45	9,94	11,3	3,08
80	80	8	40	130,1	33,2	130,1	33,2	80,8	19,3	5,17

GN 10i Profile type heavy

s_1	s_2	n	Grid size	Bending axis x-x		Bending axis y-y		I_t	A	m ≈
				I_x in cm⁴	W_x in cm³	I_y in cm⁴	W_y in cm³	in cm⁴	in cm²	in kg/m
40	16	8	40	1,06	1,25	6,75	3,37	0,97	4,15	1,12
40	40	8	40	13,9	6,95	13,9	6,95	1,88	9,05	2,45
40	80	8	40	101,0	25,2	26,7	13,4	18,8	16,5	4,51
80	80	8	40	187,8	46,9	187,8	46,9	128,4	26,7	7,2

GN 11i Profile type light

s_1	s_2	n	Grid size	Bending axis x-x		Bending axis y-y		I_t	A	m ≈
				I_x in cm⁴	W_x in cm³	I_y in cm⁴	W_y in cm³	in cm⁴	in cm²	in kg/m
40	40	8	40	9,63	4,96	9,63	4,96	5,41	6,79	1,83