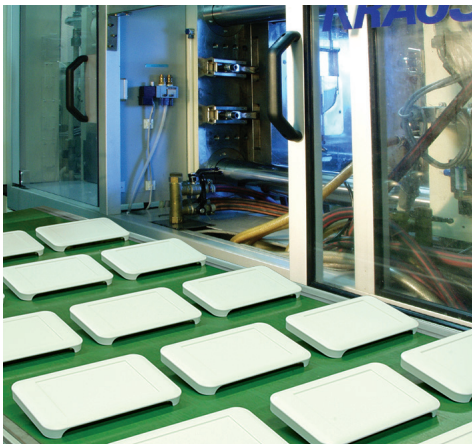
TOLERANCES

PRODUCTION-RELATED DIMENSIONAL VARIATIONS



GENERAL INFORMATION

The deviations from the nominal dimensions and the subsequent processing of our parts are generally dependent on the manufacturing or production processes used.

- DIN ISO 20457 applies for injection molding, and the tolerance group TG 6 applies for our thermoplastics.
- DIN 12020-2 applies for the production of aluminum profiles.
- If the parts are mechanically processed, DIN ISO 2768m always applies.

INJECTION-MOLDED PLASTIC PARTS

Deviations from nominal dimension according to DIN ISO 20457 TG 6.

Tolerance-group	Nominal dimensional range																
	over	0.04"	0.12"	0.24"	0.39"	0.71"	1.18"	1.97"	3.15"	4.72"	7.09"	9.84"	12.40"	15.75"	19.69"	24.80"	31.50"
	up to	0.12"	0.24"	0.39"	0.71"	1.18"	1.97"	3.15"	4.72"	7.09"	9.84"	12.40"	15.75"	19.69"	24.80"	31.50"	39.37"
General tolerances																	
TG6	W	±0.003"	±0.005"	±0.007"	±0.009"	±0.010"	±0.012"	±0.015"	±0.022"	±0.031"	±0.037"	±0.041"	±0.045"	±0.049"	±0.055"	±0.063"	±0.071"
	NW	±0.005"	±0.007"	±0.009"	±0.010"	±0.012"	±0.015"	±0.022"	±0.031"	±0.037"	±0.041"	±0.045"	±0.049"	±0.055"	±0.063"	±0.071"	±0.083"

W – for dimensions that are tool-specific
NW – for dimensions that are not tool-specific

MACHINING, SILK-SCREEN / TAMPO PRINTING, SAWING, EMBOSSING, CUTTING, DIGITAL PRINTING

All dimensions < 1.18" to the reference edge of the case with a tolerance of ± 0.01".
All other dimensions: unless otherwise specified against DIN ISO 2768m T1.
At the same time, the tolerances of the basic parts must be taken into account.

Linear measure	Nominal dim.	0.02" - 0.24"	0.24" - 1.18"	1.18" - 4.72"	4.72" - 15.75"	15.75"- 39.37"
	Tolerance	± 0.004"	± 0.008"	± 0.012"	± 0.020"	± 0.031"
Angular measure	Nominal dim.	up to 0.39"	0.39" - 1.97"	1.97" - 4.72"	4.72" - 15.75"	> 15.75"
	Tolerance	± 1°	± 0.5°	± 0.33°	± 0.16°	± 0.08°
Radii	Nominal dim.	0.02" - 0.12"	0.12" - 0.24"	0.24" - 1.18"	1.18" - 4.72"	4.72" - 15.75"
	Tolerance	± 0.008"	± 0.020"	± 0.039"	± 0.079"	± 0.157"