

2. Technical Data

2.1 Precision

Accuracy

The MR miniature Linear Guide series has 3 options for accuracy. These are Precision (P), High (H), Normal (N).

Table of Accuracy		Precision	High	Normal	
Accuracy classes (µm)		P	H	N	
	Tolerance of dimension height H	± 10	± 20	± 40	
	Variation of height for different runner block on the same position of rail	ΔH	7	15	25
	Tolerance of dimension width W	W ₂	± 15	± 25	± 40
	Variation of width for different runner block on same position of rail	ΔW ₂	10	20	30

Speed

The maximum speed for the MR guides is:

$$V_{max} = +3 \text{ m/s}$$

and the maximum acceleration

$$a_{max} = 250 \text{ m/s}^2$$

2. Technical Data

2.2 Preload

Preload Classes

The MR Miniature Linear Guide series has two classes of preload, V0 and V1 as described in the Preload Table below.

Preload can enhance stiffness, precision, and torque resistance, but will affect life and friction.

Accuracy of the running parallelism

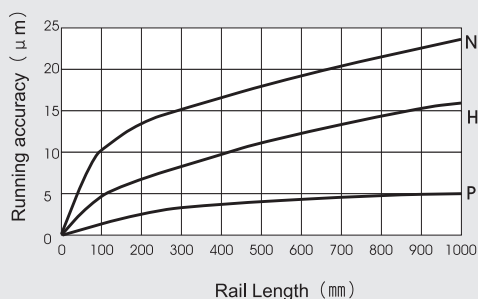


Table of Preload

Preload Classes	Preload	Clearance (µm)					
		3	5	7	9	12	15
V0	Small clearance to light preload	+1	+1.5	+2	+2	+3	+5
		0	0	-2	-2	-3	-5
V1	Light preload 0.02C	0	0	0	0	0	0
		-0.5	-1	-3	-4	-6	-10

Permissible operating Temperature

The MR Miniature linear guide can operate in a range of temperatures from -40°C~+80°C. For short term operation it can reach +100°C.