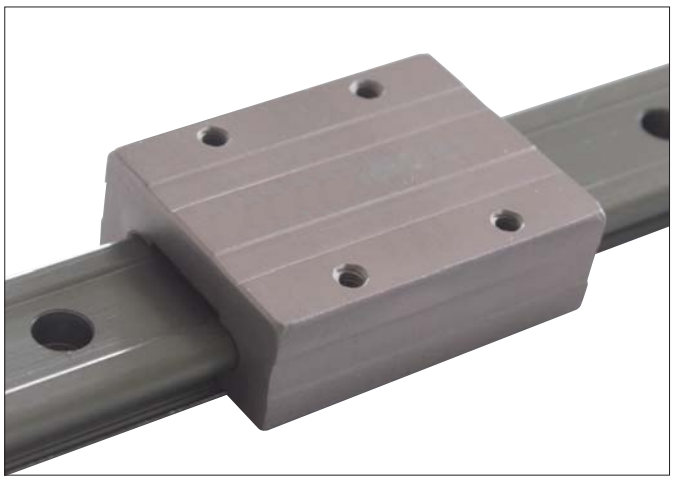


Product advantages

An economical alternative to conventional miniature linear guides. Available in five sizes and lengths up to 3600mm.

The compact design is ideal in small footprint applications. Such as : packaging, clean rooms, x-y gantry systems, medical medical devices and material handling.

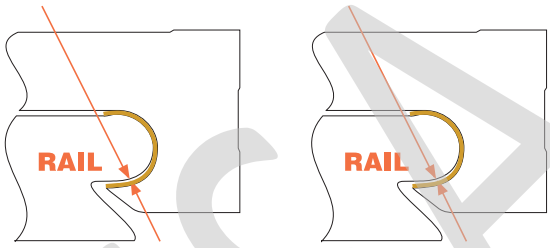
Available in five sizes :
7, 9, 12, 15 and 20 - up to 3600 mm long.

Self lubrication FrelonGold maintenance free.
Corrosion resistant ideal in harsh environments.
Fully interchangeable - industry standard sizes.
No rolling elements - no catastrophic failure.

Compact design, small footprint saves space.

Precision series
0,025 - 0,051 mm
running clearance
(ceramic coated)

Compensated precision serie
0,064 - 0,089 mm
running clearance
(ceramic coated)



Technical data

Mini-Rail is offered in two design configurations :

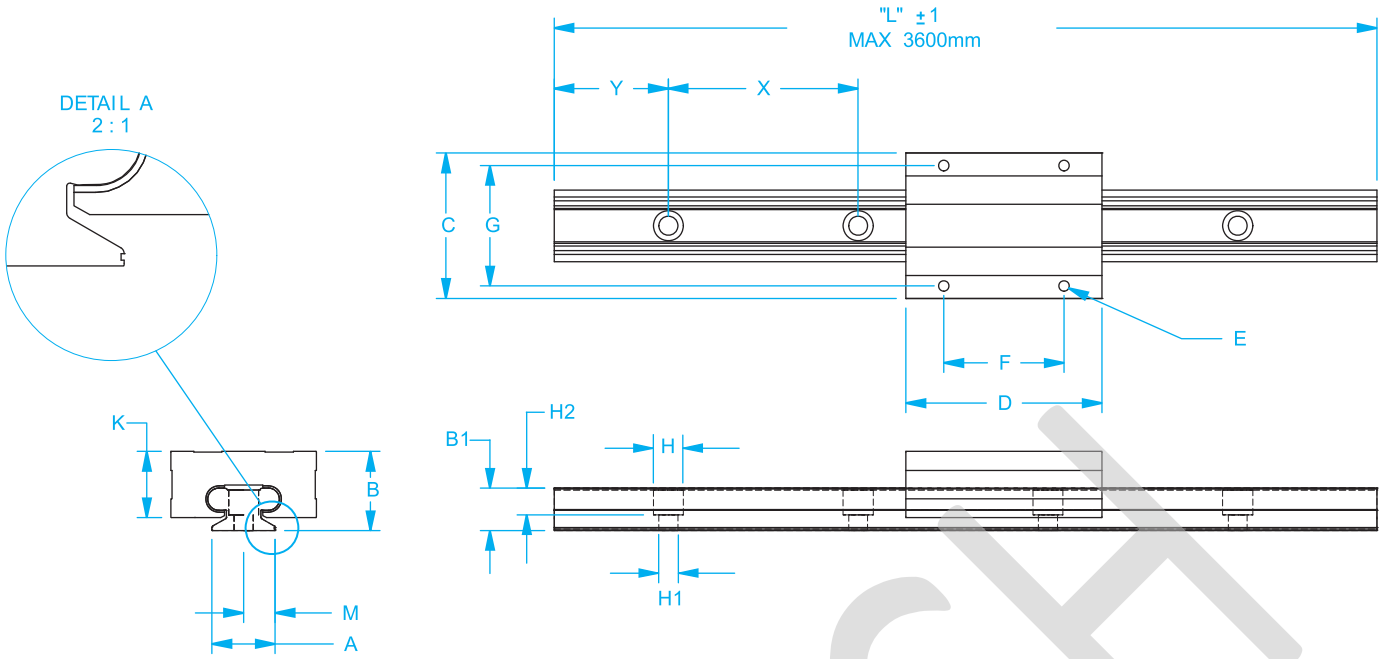
Precision Series :
Ceramic coated rails and anodized aluminum carriages. This execution is corrosion resistant.
FrelonGold self lubricating liner delivers the best overall performance, the highest loads, the best wear life and speeds.

Running clearance for high precision applications

Compensated precision serie :
Same execution as Precision Series except with additional clearance provided to tolerate misalignment.

Working temperature range +/- 200 °C

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Reference	Running clearance	Dimensions - mm																Rail	Car.
		A	B	B1	C	D	E		F	G	H	H1	H2	K	M	Y	X		
							Fixation @ car	Profundity			Fixation du rail							g/mm	g
MR7	0,025 - 0,051	7	8	6,1	17	24	M2x0,4	Thru	8	12	4,2	2,4	2,3	6.2	3,5	-	15	0,10	5,7
MRC7	0,064 - 0,089	7	8	6,1	17	24	M2x0,4	Thru	8	12	4,2	2,4	2,3	6,2	3,5	-	15	0,10	5,7
MR9	0,025 - 0,051	9	10	7,1	20	30	M3x0,5	Thru	13	15	4,5	2,6	3	8	4,5	-	20	0,16	8,5
MRC9	0,064 - 0,089	9	10	7,1	20	30	M3x0,5	Thru	13	15	4,5	2,6	3	8	4,5	-	20	0,16	8,5
MR12	0,025 - 0,051	12	13	8	27	34	M3x0,5	Thru	15	20	6	3,5	3,5	10,7	6	-	25	0,22	20
MRC12	0,064 - 0,089	12	13	8	27	34	M3x0,5	Thru	15	20	6	3,5	3,5	10,7	6	-	25	0,22	20
MR15	0,025 - 0,051	15	16	9,2	32	42	M3x0,5	Thru	20	25	6	3,5	4,5	14,1	7,5	-	40	0,38	34
MRC15	0,064 - 0,089	15	16	9,2	32	42	M3x0,5	Thru	20	25	6	3,5	4,5	14,1	7,5	-	40	0,38	34
MR20	0,025 - 0,051	20	25	13,4	46	62	M4x0,7	12,5	38	38	9,5	6	8,5	21,2	10	-	60	0,48	127,9
MRC20	0,064 - 0,089	20	25	13,4	46	62	M4x0,7	12,5	38	38	9,5	6	8,5	21,2	10	-	60	0,48	127,9

Notes : Add the overall length of the rail to the part number (EXAMPLE "MR12-220" for a Precision Series assembly with a 220mm long rail)

Cut-to-length rails are available up to 3600mm. Standard and cut-to-length rail ends are NOT coated. Fully coated rails are available upon request.

All carriage mounting holes are through tapped except MR20 12.5mm of thread.

The "S" dimension will remain constant at one end unless requested otherwise.

Exemple — **MR** | **C** | **12**

Rails

Serie
— *Precision Series*
C *Compensated Precision Series*

Nominal Sizes (7, 9, 12, 15, 20 mm)

MR15R | **600** | **20**

Rails

Length of Rail in mm

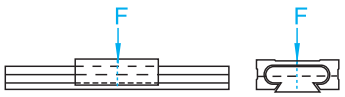
Specify the first hole when ordering (Y)

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Static load data

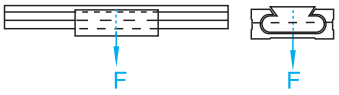
The numbers below are for rails in a static condition. Refer to the calculation below to establish dynamic parameters.

Size	F N	MSL* N
7	445	734
9	667	1 557
12	1 334	1 957
15	2 224	3 114
20	3 559	6 005

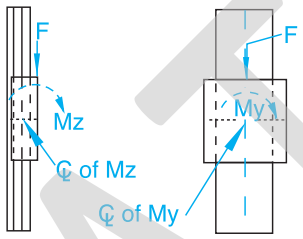


*Charges statiques max. en Newton.

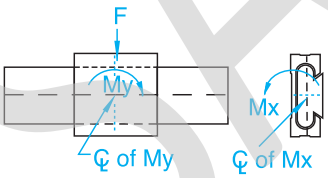
Size	F N
7	89
9	125
12	222
15	356
20	578

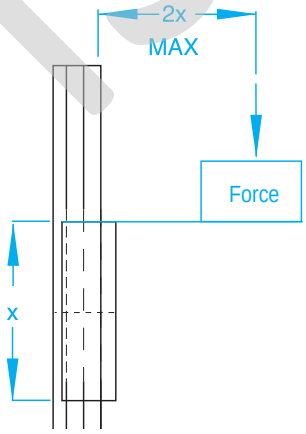


Size	Mx Nm	My Nm	Mz Nm
7	2,3	1,8	1,8
9	5,0	3,2	3,2
12	9,0	5,6	5,6
15	15,1	9,0	9,0
20	24,9	14,7	14,7



Size	F N	Mx Nm	My Nm	Mz Nm
7	133	2,3	1,8	1,8
9	222	5,0	3,2	3,2
12	400	9,0	5,6	5,6
15	667	15,1	9,0	9,0
20	1 112	24,9	14,7	14,7





Performance rationgs for linear motion

Plain bearings are rated by their limiting PV, which is a combination of load over given surface area and the velocity.

Size	MAX. «PV»	MAX. «P»	MAX. «V» no lubrication
FrelonGOLD®	0,7 N/mm²xm/s	20,68 N/mm²	1,524 m/s
Frelon® J	0,35 N/mm²xm/s	10,34 N/mm²	0,711 m/s

PV = Performance measurement of lain bearings

PV = **P**x**V**, where **P** = pressure (load) in kgf/cm ^{2}

V = Speed in m/min

Note : all three parameters must be met by an application for bearing to perform properly.

℄ = centre line

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