MINIATURE LINEAR GUIDEWAYS

Miniature TM rails are designed for applications with low requirements
bulk and intended for precision equipment like instruments
measurement or medical or for the electronics industry. The rails possess two paths
bearing in gothic arch with contacts at 45 ° allowing capacity
loads identical in all four directions.
For very high precision applications.

Miniature rails are made from stainless steel

Dimensions	TMR5	TMR7	TMR9	TMR12	TMR15	TMWR9	TMWR12	TMWR15
Pitch [mm]	15	15	20	25	40	30	40	40
Distance of first hole	5	5	8	10	15	8	10	15
Max length of rail [mm]	990	990	1 000	2 000	2 000	1 980	2 000	2 000

Working temperature range - 40°C à 80°C.

Paralelism of TM and TMW for troubleless work (µm)

Precision	Length of rail in mm (stock normal precision N)												
	< 70	<100	<130	<160	<190	<200	<250	<310	<400	<490	<610	<700	<1000
N	11	12	13	14	15	16	17	18	20	21	22	23	25
H	4	5	6	7	7	8	8	9	11	12	13	14	16
P	2	2	2	2	3	3	3	3	4	4	4	5	5

PRELOAD LEVELS

The recommended normal preload level is available from stock.

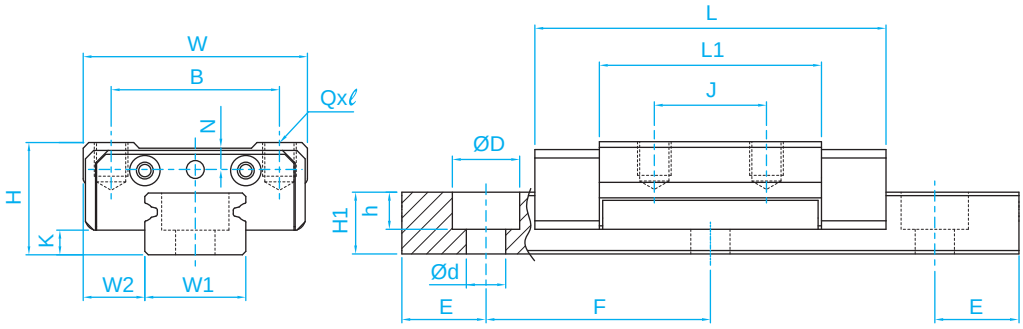
Preload	Code	Preload - µm				Operating conditions
		7	9	12	15	
Without preload	**ZF**	+4 /0	+4/0	+5/0	+6/0	Guidance very soft / low impact / low precision
Light preload	**Z0**	+2/0	+2/0	+2/0	+3/0	Guidance with average load / High precision
Medium preload	**Z1**	0/-3	0/-4	0/-5	0/-6	Guidance high strength / High shock and vibration

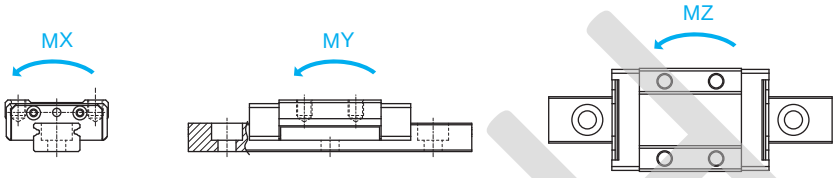
Available on stock with light preload Z0.

FISATECH

Type TM







Type	Dimensions - mm										Basic load N		Static moment N-m					Weight block	Type rail (1)
	H	W	L	B	J	Qxℓ	L1	N	K	W2	Dyn. C	Stat. Co	simple M_X	simple M_Y	double M_Y	simple M_Z	double M_Z	g	
TM5N	6	12	20	8	-	M2x1,5	12,4	1,2	1	3.5	632,1	1 009,4	2,346	2,248	11,706	2,248	11,706	4	
TM7N	8	17	24,3	12	8	M2x2,5	14,1	1,5	1,5	5	1 227,1	1 703,4	5,390	4,246	23,186	4,246	23,186	9	
TM7L			31,8		13		21,6				1 671,6	2 649,7	8,385	11,211	50,400	11,211	50,400	12,6	
TM9N	10	20	31,3	15	10	M3x3	20,7	2,2	2	5.5	1 697,0	2 545,5	11,505	9,270	46,708	9,270	46,708	17,1	
TM9L			41,4		15		30,8				2 337,1	4 030,3	16,633	22,158	103,878	22,158	103,878	25,2	TMR
TM12N	13	27	34,9	20	15	M3x3,5	21,3	2,7	3	7.5	3 035,6	3 815,6	20,696	14,367	75,951	14,367	75,951	31,5	
TM12L			45,4		20		31,8				4 254,0	6 200,4	33,632	35,294	171,209	35,294	171,209	45,9	
TM15N	16	32	44,4	25	20	M3x4	27,7	3,1	4	8.5	4 579,3	5 842,8	39,929	28,714	149,148	28,714	149,148	57,6	
TM15L			59,4		25		42,7		25		6 533,6	9 738,1	44,549	74,712	355,999	74,712	355,999	85,5	

Order example **TM 12 N Z0 N**

Size

N : Standard block
L : Heavy load

Z0 : Light preload

N : standard precision

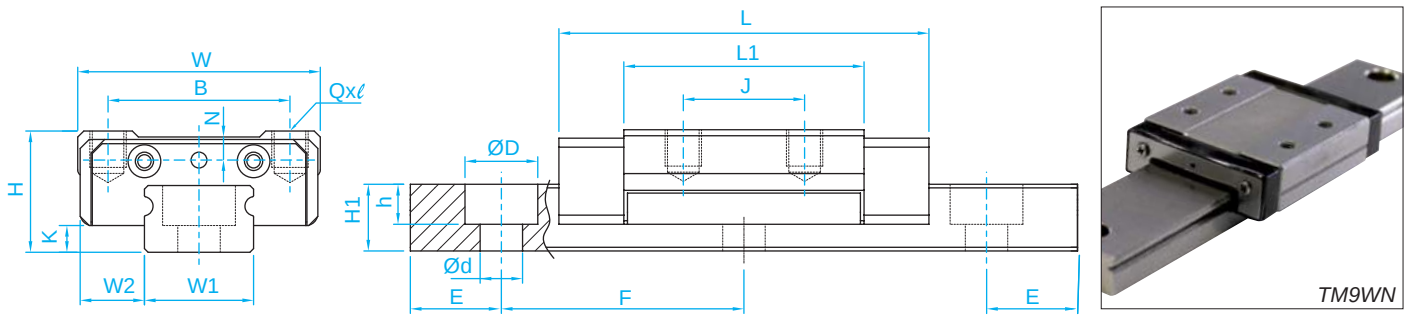
Type	Dimensions rails de guidage - mm								
	W1	H1	ØD	Ød	h	Fixation Rail	Weight Kg/M	F	E(1)
TM5R	5	3,7	3,6	2,4	0,8	M2	0,14	15	
TM7R	7	5	4,2	2,4	2,3	M2x6	0,25	15	
TM9R	9	6	6	3,5	3,5	M3x8	0,39	20	
TM12R	12	8	6,5	3,5	4,5	M3x8	0,68	25	
TM15R	15	10	6,5	3,5	4,5	M3x10	1,07	40	

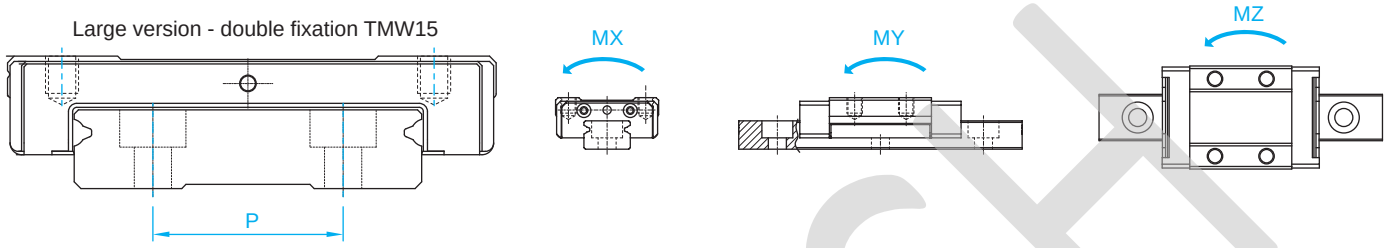
Specify the first hole when ordering (E) Mounting bolt for rail

■ ***The E value depends on the length of the rail.***

FISATECH

Type TM-W





Type	Dimensions - mm										Basic load N		Static moment N-m					Weight block	Type rail (1)
	H	W	L	B	J	Qxℓ	L1	N	K	W2	Dyn. C	Stat. Co	simple M_X	simple M_Y	double M_Y	simple M_Z	double M_Z	g	
TM9WN	12	30	40.2	21	12	M3x3	28.6	3.2	3	6	2 197	3 606	33	25,59	87,59	25,59	87,59	30	TMWR
TM9WL			52	23	24		40.4				2 878	5 303	48,52	48,66	172,9	48,66	172,9	43	
TM12WN	14	40	44.5	28	15	M3x3.5	30.9	3.2	3	8	4 015	5 723	69,83	44,93	152,21	44,93	152,21	50	
TM12WL			59.7		28		46.1				5 539	9 062	110,56	95,56	338,66	95,56	338,66	76	
TM15WN	16	60	56.6	45	20	M4x4.5	39	3.2	4	9	6 579	9 085	192,6	90,77	306,55	90,77	306,55	116	
TM15WL			75.8		35		58.2				9 076	14 384	304,94	192,54	680,65	192,54	680,65	175	

Exemple de désignation TM 12 W N Z0 N

- Size
- Block type
- N : Standard block
  L : Heavy load
- Z0 : Light preload
- N : standard precision

Type	Dimensions - mm									
	W1	H1	ØD	Ød	h	Fixation Rail	Weight Kg/M	F	P	E(1)
TMW9R	18	7	6	3,5	4,5	M3x8	0,91	30	-	(1)
TMW12R	24	8	8	4,5	4,5	M3x8	1,37	40	-	
TMW15R	42	10	8	4,5	4,5	M3x10	2,88	40	23	

Specify the first hole when ordering (E)
Mounting bolt for rail

■ ***The E value depends on the length of the rail.***

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