ABBA LinearTech

An Ewellix company

BM series
New Miniature

Low noise
Green product

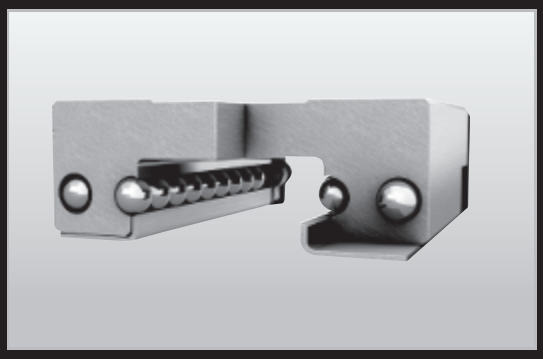
Self Lubrication
Long service life

Smooth Running
High position accuracy

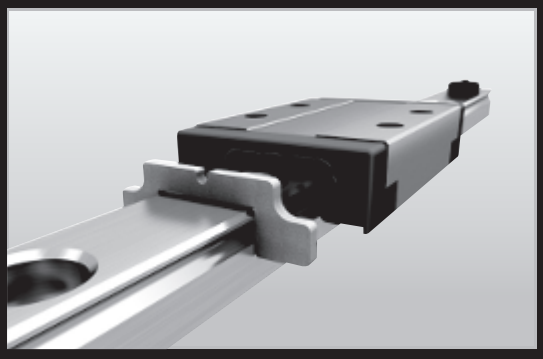
Benefits

- Robust and compact design
- Smooth running for position accuracy
- Long service life
- Low noise level
- Low installation and maintenance outlay
- Interchangeability for H grade of blocks and rails

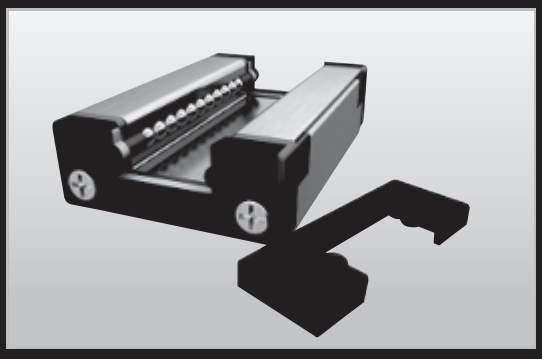
Robust ball retention system



Lubrication reservoir



Optimized seal design



Applications

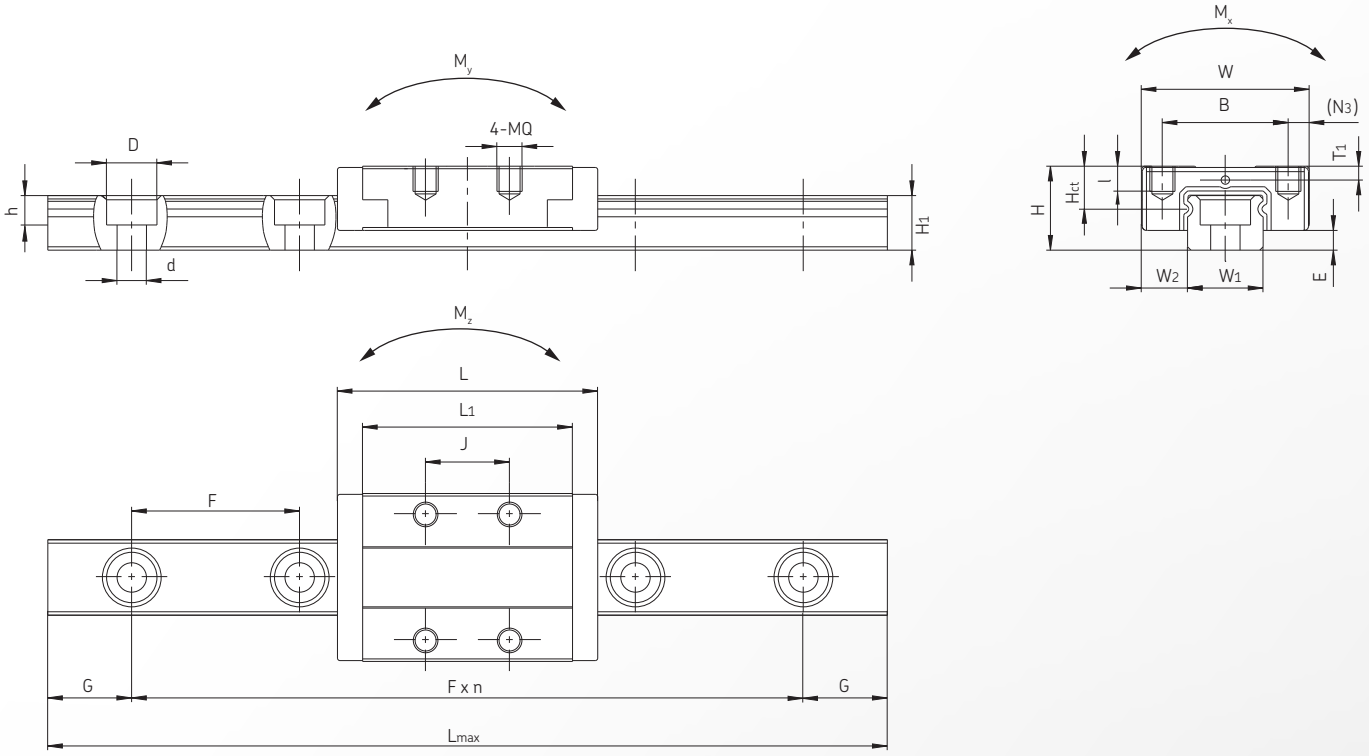
Minimal service requirements combined with low friction and silent running, the new BM series provides high performance for medical applications.

- Laboratory analyzer
- Minislides in automation
- 3D-Printing machine
- Laboratory machine tool
- Engraving machine
- Dental equipment

Features

- Safe and quick mounting due to innovative robust ball retention system
- Optimized ball recirculation for smooth run -ning and high accuracy
- To maximize the maintenance-free operation, all BM blocks are factory pre-lubricated and equipped with a lubrication reservoir which secures the lubrication condition in the complete guiding system.
- New and optimized seal design
- Reduced friction
- High dynamic values: speed v = 5 m/s, acceleration a = 140 m/s^2
- Miniature BM series has two accuracy options: Precision (P), High (H)
- Stainless steel components
- Interchangeable according to ISO 12090-2
- RoHS and REACH conform

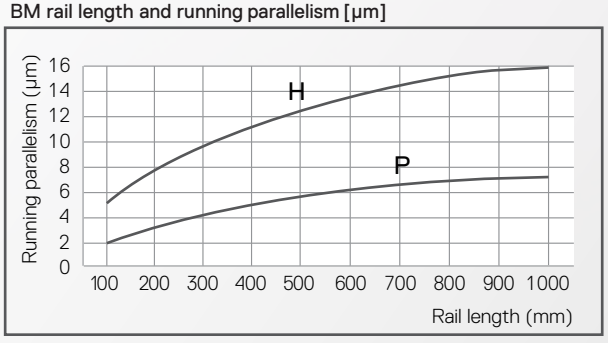
Technical DATA



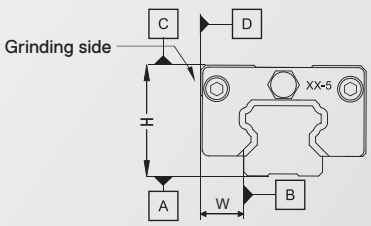
Model No.	Assembly (mm)					Block (mm)						Rail (mm)			
	H	W	W2	N3	E	L	BxJ	MQxl	L1	T1	Hct	W1	H1	F	dxDxh
BMHC7U0	8	17	5	2.5	1.5	23.5	12x8	M2x2.5	18	1.7	4.6	7	4.8	15	2.5x4.5x2.5
BMHC7LU						31.5	12x13		26						
BMHC9U0	10	20	5.5	2.5	2.35	31	15x10	M3x3	25	1.65	5.1	9	6.5	20	3.5x6x3.5
BMHC9LU						40.5	15x16		34.4						
BMHC12U0	13	27	7.5	3.5	3.35	35	20x15	M3x3.5	29	2.65	6.5	12	8.8	25	3.5x6x4.5
BMHC12LU						46.5	20x20		40.5						

Model No.	Ref.Data (mm)			Basic Load Rating (kgf)		Static Moment (Kgf*m)			Weight	
	Lmax	Gmin	Gmax	(C)	(C0)	Mx	My	Mz	Block (Kg)	Rail (Kg/m)
BMHC7U0	1000	4.5	11	117	149	0.47	0.26	0.26	0.01	0.23
BMHC7LU				163	245	0.77	0.75	0.75	0.02	
BMHC9U0	1000	5	15	218	285	1.17	0.76	0.76	0.02	0.4
BMHC9LU				293	438	1.80	1.83	1.83	0.03	
BMHC12U0	1000	5	20	321	397	2.19	1.19	1.19	0.04	0.75
BMHC12LU				456	642	3.55	3.10	3.10	0.06	

BM rail length and running parallelism [μm]



* The tolerances apply over the entire guide length for any combination of block and rail.
**The tolerance △H and △W relate to the ideal centre of the block. Each dimension is derived from the mean value of two measured points with identical centre distance.



Unit: mm

Item	Accuracy class	
	P	H
Tolerance of height (H)*	±0.010	±0.020
Tolerance of width (W)*	±0.015	±0.025
Difference of heights (△H)**	0.007	0.015
Difference of widths (△W)**	0.007	0.015

Ordering Key

BMH	S	7	-U0	2	Z1	-0100	H	D0	-S	W2

Type Code

S	System (Block mounted on rail)
C	Block (Block only)
R	Rail (Rail only)

Size

7, 9, 12

Block, Type

U0	Slim-line block, standard length, standard height
LU	Slim-line block, extended length, standard height

Number of blocks per rail

1~9	1-9 blocks per rail
A~W	>9 blocks per rail (10=A, 11=B, 12=C...)

Preload Class

Z0	No preload
Z1	Light preload

Rail Length

xxxx	Up to 1,000 mm length (1 mm steps)

Accuracy Class

H	High
P	Precision[1)]

Rail Hole

D0	Standard hole (Standard hole distance. Distance of the first and last attachment holes are produced equidistantly)
F0	Standard hole (Standard hole distance. Distance of the first and last attachment holes are not produced equidistantly)

Sealing

S	Front seal
0	Low friction shield

No. of Parallel Rails

00	Single Rail
W2~W9	Parallel Rails (W2: 2 rails, W3: 3 rails...)[1)]

[1)] Available as system

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