METFB-32 series

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

mindman

Selection table
Applications
Measuring tools
Reference data
Motor selection
Controller



Motor type	Servo / Step	Transmission	Timing belt
Environment	Standard	Guide type	Linear guide

Specification

Model		METFB-32
Positioning repeatability	(mm)	±0.05
Lead	(mm/rev)	72
Belt pitch	(mm)	3
Stroke	(mm)	100~2000
No-load torque	(N.m)	0.2
Slot-type photomicro sensor		RLT

Motor type			AC servo		Step
Power output / size			200W	400W	□42
Max. speed *1		(mm/s)	2400		720
Rated load *2	Horizontal	(kg)	5	10	3.5
	Vertical	(kg)	–		–

*1. Acceleration and deceleration values are set to 0.5 second.
*2. Not available for vertical installation.

Order example

Electric cylinder without motor — Optional with step motor (*2)

METFB	–	32	N	–	1000	BW	–	S42	–	CK10	03	N	015
Model		Size	①		②	③		④		⑤	⑥	⑦	⑧

① Guide installation

N	Without guide
GR	Guide right side
GL	Guide left side

② Stroke

100~2000 mm

③ Motor position

BW	Top side
BM	Down side

④ Flange (For motor installation)

Applicable motor brand *1		Dimensions	
M	Mitsubishi	40	200/400W Servo
	Yaskawa		
	Delta		
P	Panasonic	20	200W Servo
		40	400W Servo
S	Mindman	42	□42 Step NEMA 17
B			

⑤ Controller / Motor

Controller	Motor
CK10	SM (for S42)
CM20 *	BM (for B42)

* Sensors would be needed.

⑥ Motor + Encoder cable

01	1 m (CM20 only)
015	1.5 m (CK10 only)
03	3 m (standard)
05	5 m

⑦ I/O type

N	NPN

⑧ I/O cable length

015	1.5 m (standard)
03	3 m

*1. Motor not included. Please refer to the "Motor Selection Table" for details.
*2. For the optional transmission cable (CK10-C035) for controller management.

Slot-type photomicro sensor set

RZ – EB2 – N

Sensor set — Sensor type

* With RLT sensor, mounting seat, bolt and cable 2m.

N	NPN
P	PNP

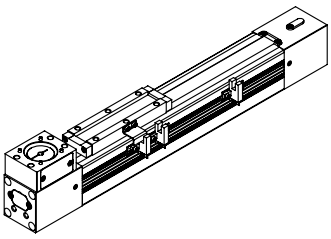
Accessory kits

AK – EB2 – 32

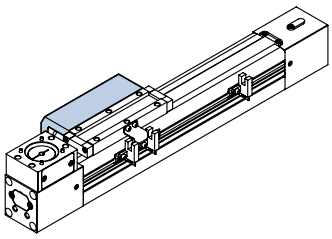
Accessory kits — Size

* With light baffle and bolt.

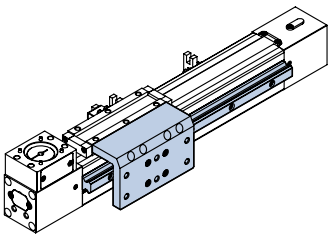
Guide installtion



N Without guide

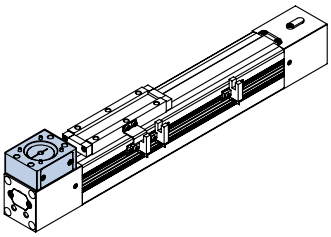


GR Guide right side

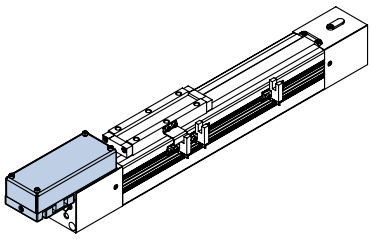


GL Guide left side

Motor position

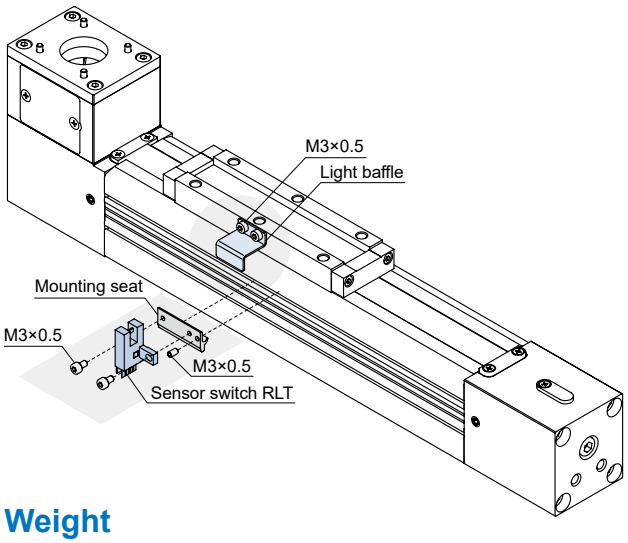


BW Top side

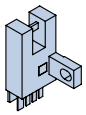
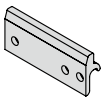


BM Down side

Slot-type photomicro sensor mounting

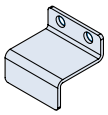


Sensor set

			
Sensor switch (×1)	Mounting seat (×1)	Bolt (×1)	Bolt (×2)

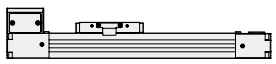
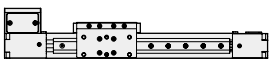
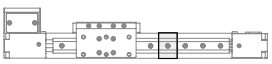
* With cable 2m.

Accessory kits

	
Light baffle (×1)	Bolt (×2)

Weight

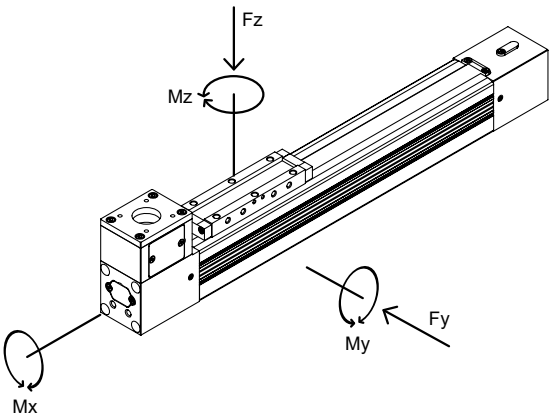
Unit: kg

Model	Basic weight **METFB-32N**	Stroke 100 mm **METFB-32N**	Basic weight (with guide) **METFB-32G***	Stroke 100 mm (with guide) **METFB-32G***
Size				
32	2.06	0.36	2.7	0.49

* The table lists the weight of motor mounting on top.

METFB-32 Capacity

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Forces & Moments

Model		Mx	My	Mz	Fy	Fz
		Max. allowed moment (N.m)			Max. allowed load(N)	
METFB-32	Without guide	5.5	22	22	–	500
	With guide	47.5	48	48	2800	3300

Attention: In case of undefinable situations the above max. values have to be reduced by 10~-20%.

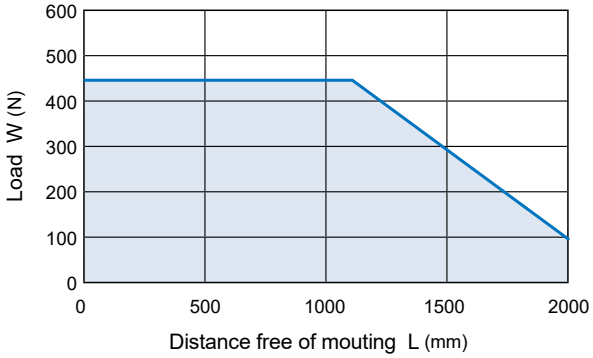
Please refer to the following formula when combined loads are applied.

$$\frac{M_{xA}}{M_x} + \frac{M_{yA}}{M_y} + \frac{M_{zA}}{M_z} + \frac{F_{yA}}{F_y} + \frac{F_{zA}}{F_z} \leq 1$$

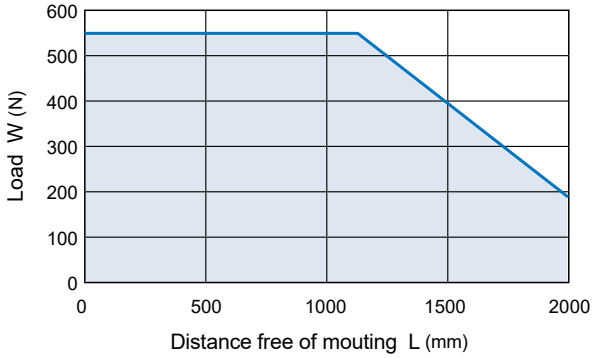
* The A letters show the calculated value.

Positioning of cylinder mountings

METFB-32 Without guide



METFB-32 With guide



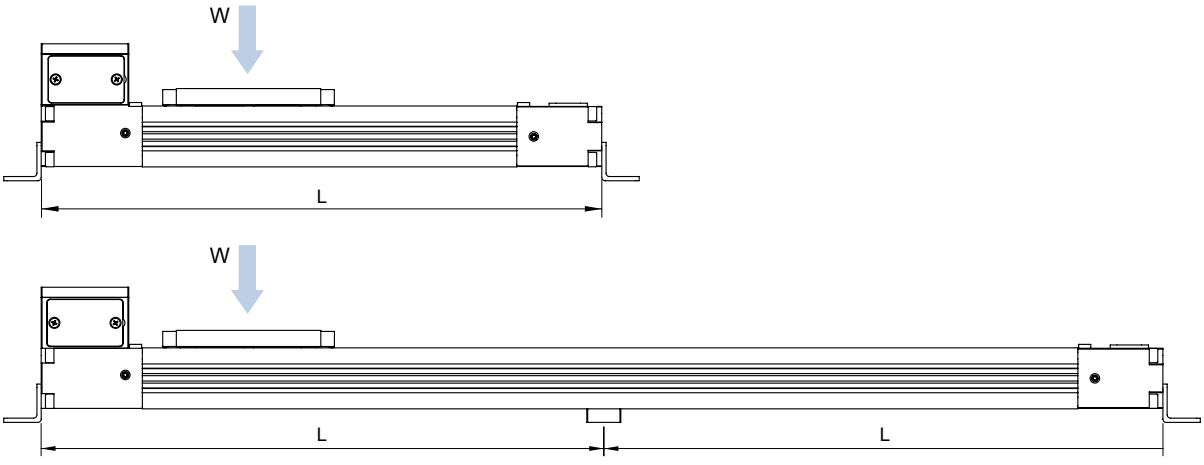


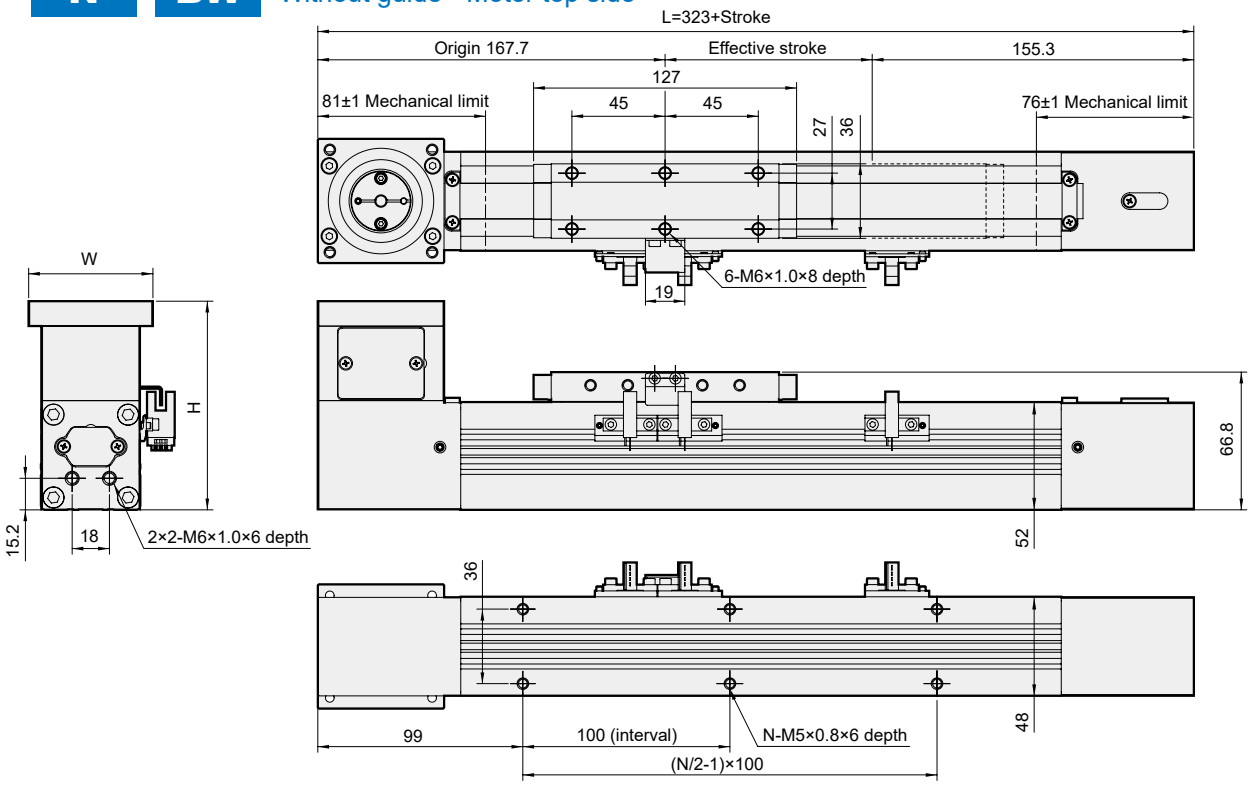
Diagram information

- Calculated deflections without support of 0.5~1 mm allow exceeding of the approved limits.
- Calculated deflections without support of > 1~1.5 mm require reduction of approved limits.

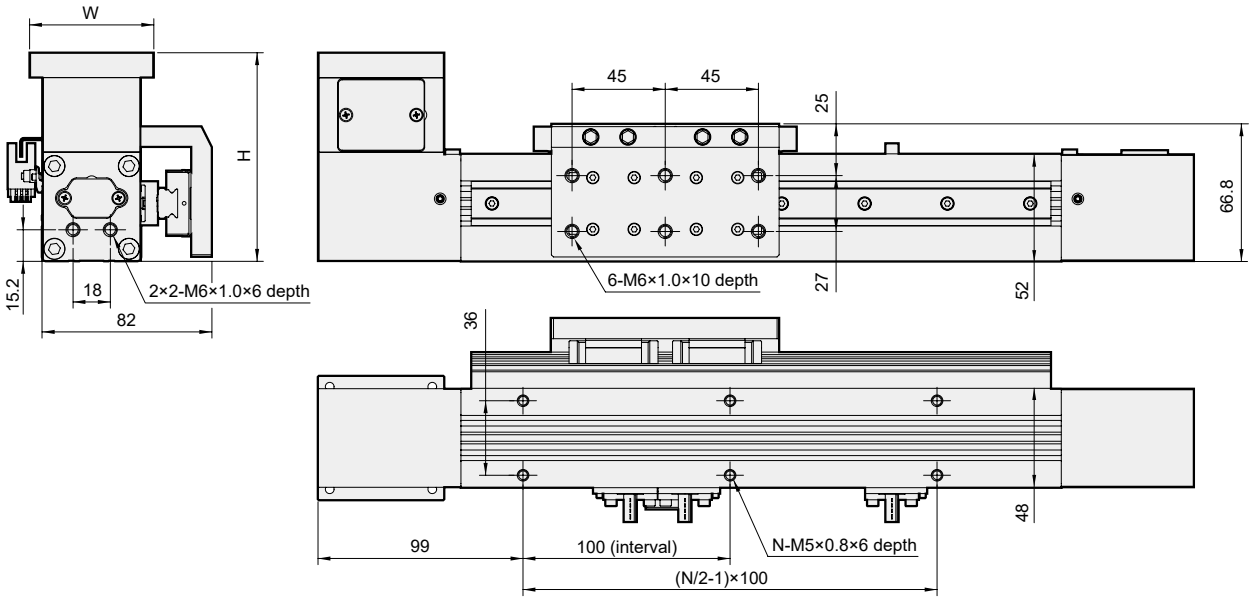
METFB-32 Dimensions

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

N BW Without guide • Motor top side



GL BW Guide left side • Motor top side



Unit: mm

Stroke / Code	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	423	523	623	723	823	923	1023	1123	1223	1323	1423	1523	1623	1723	1823	1923	2023	2123	2223	2323
N	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44

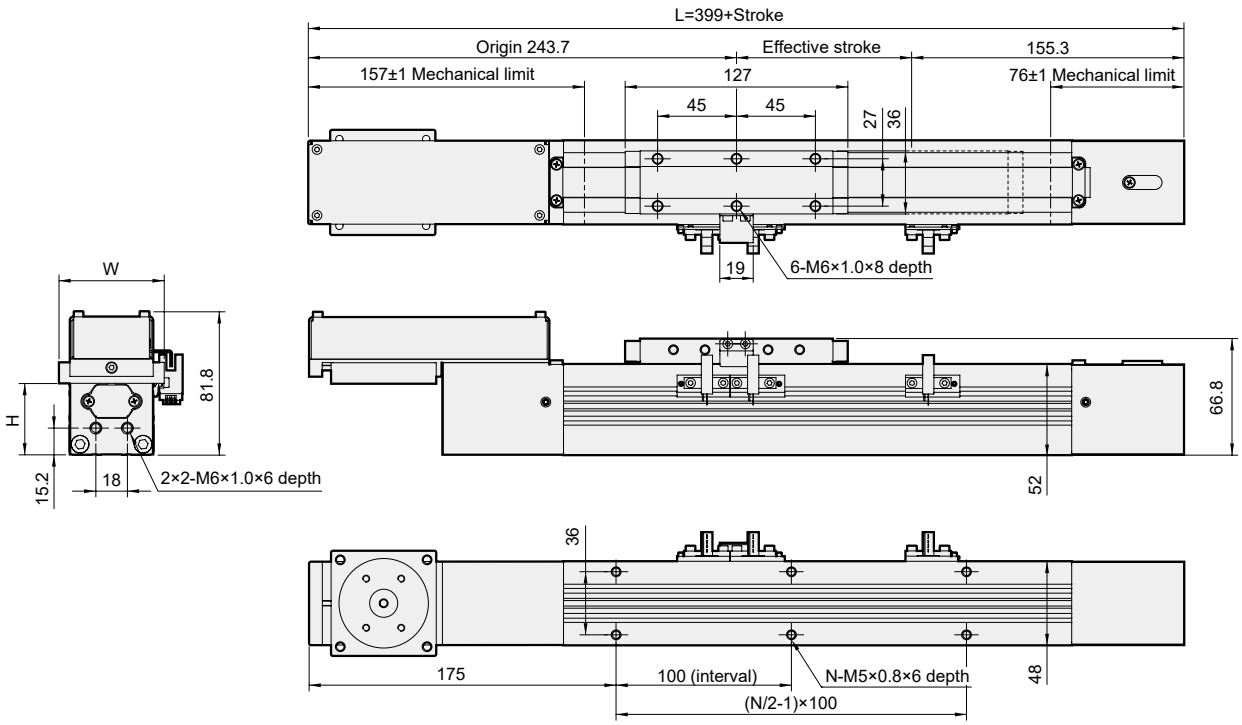
Stroke / Code	Servo	Step
W	60	47.6
H	100.8	94.8

METFB-32 Dimensions

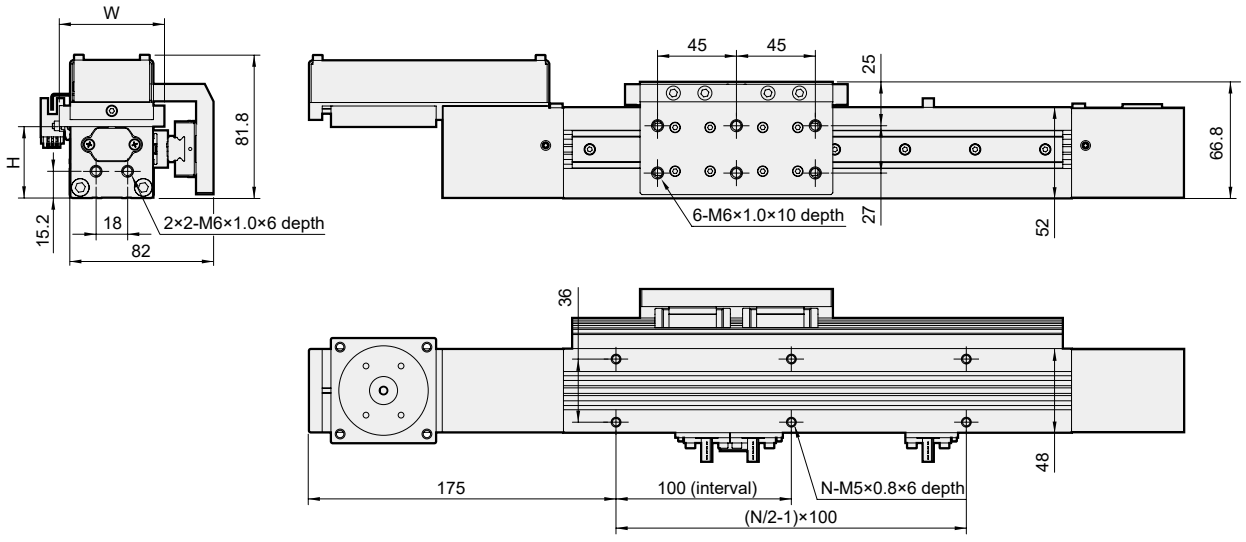
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N BM Without guide • Motor down side



GL BM Guide left side • Motor down side



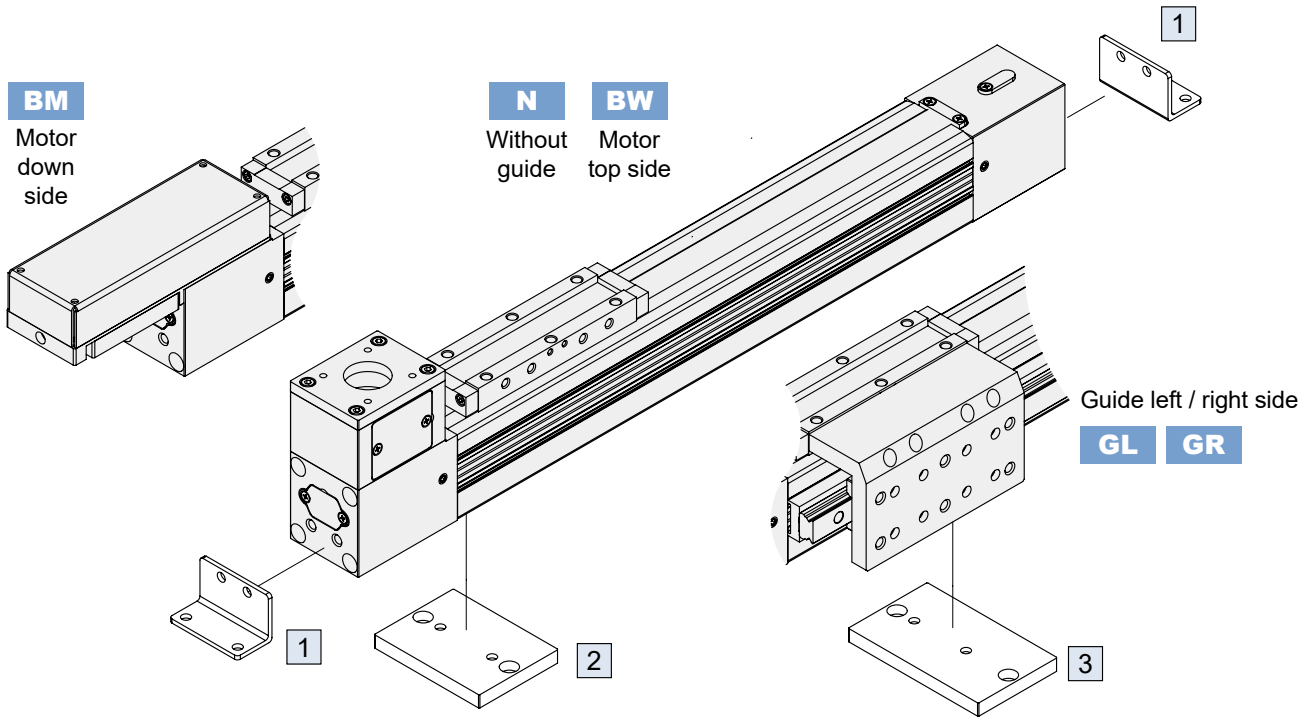
Unit: mm

Stroke / Code	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
L	499	599	699	799	899	999	1099	1199	1299	1399	1499	1599	1699	1799	1899	1999	2099	2199	2299	2399
N	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44

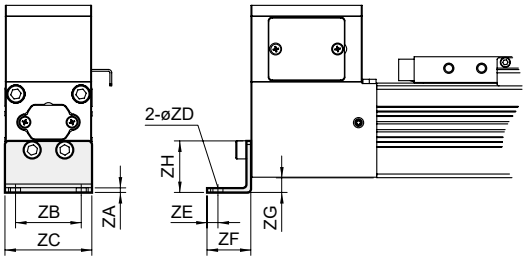
Stroke / Code	Servo	Step
W	60	47.6
H	40.8	42.8

METFB-32 Mounting accessories

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

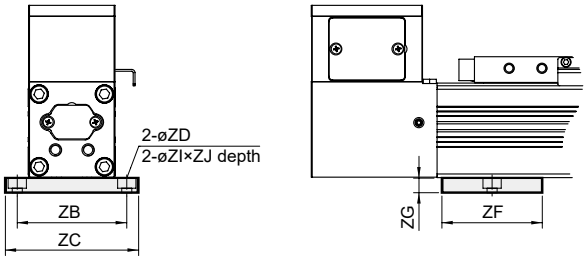


1 End cover bracket (2pcs/set)

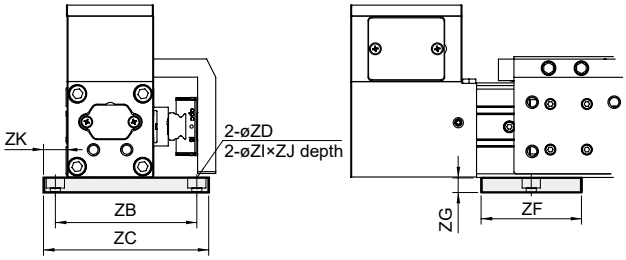


* Not applicable for (BM) motor down side.

2 Mid section support *Applicable for (N) without guide.



3 Mid section support * Applicable for (GR / GL) with guide.



Unit: mm

Item	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	Weight (g)	Order number
1	2.5	36	47.6	5.5	6	24	8	28.3	–	–	–	46	**LB-EB2-32**
2	–	60	72	5.5	–	55	8	–	10	5.5	–	82	**MS-EB2-32**
3	–	78	90	5.5	–	55	8	–	10	5.5	12.5	103	**MS-EB2-32G**