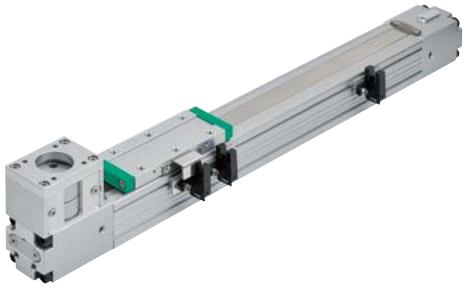
METFB-25 series

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-25
Positioning repeatability	(mm)	±0.05
Lead	(mm/rev)	50
Belt pitch	(mm)	2
Stroke	(mm)	100~1000
No-load torque	(N.m)	0.1
Slot-type photomicro sensor		RLT

Motor type			AC servo		Step
Power output / size			50W	100W	□42
Max. speed *1		(mm/s)	1500		500
Rated load *2	Horizontal	(kg)	1.7	3.5	3.2
	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–25 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

100~1000 mm

③ Motor position

BW	Top side
BM	Down side

④ Flange (For motor installation)

Applicable motor brand *1		Dimensions	
M	Mitsubishi	10	50/100W Servo
	Yaskawa		
	Delta		
P	Panasonic		
S	Mindman	42	□42 Step NEMA 17
B			

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

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

Slot-type photomicro sensor set

RZ – EB2 – N

Sensor set | Sensor type

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

Sensor type	
N	NPN
P	PNP

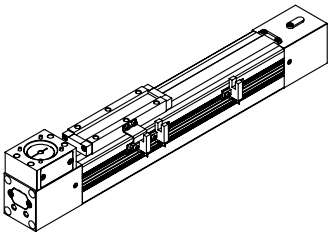
Accessory kits

AK – EB2 – 25

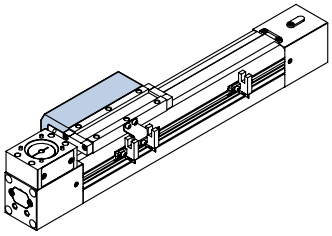
Accessory kits | Size

* With light baffle and bolt.

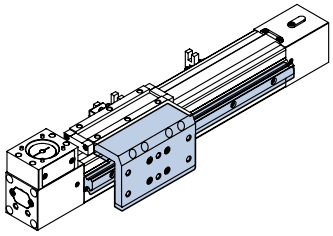
Guide installtion



N Without guide

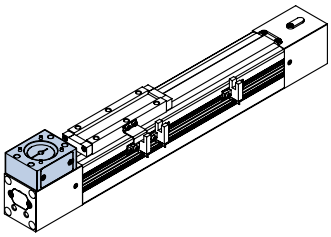


GR Guide right side

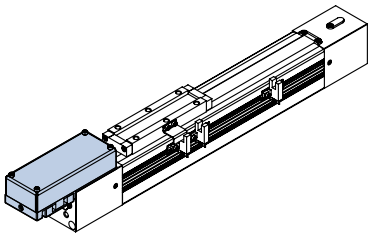


GL Guide left side

Motor position

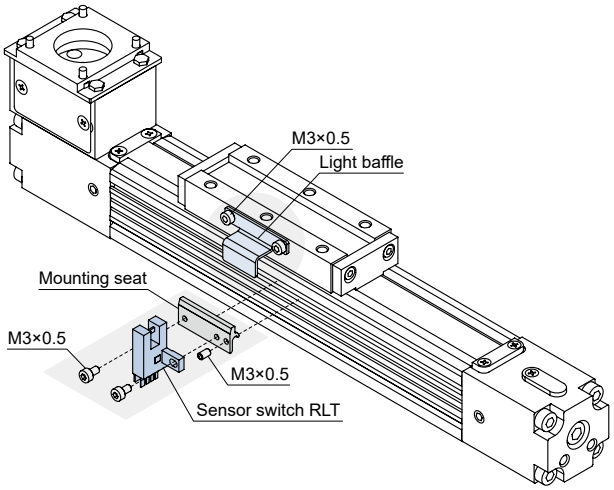


BW Top side

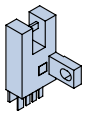
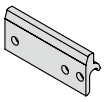


BM Down side

Slot-type photomicro sensor mounting

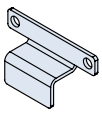


Sensor set

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

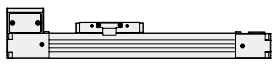
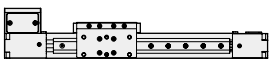
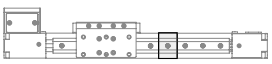
* With cable 2m.

Accessory kits

	
Light baffle (×1)	Bolt (×2)

Weight

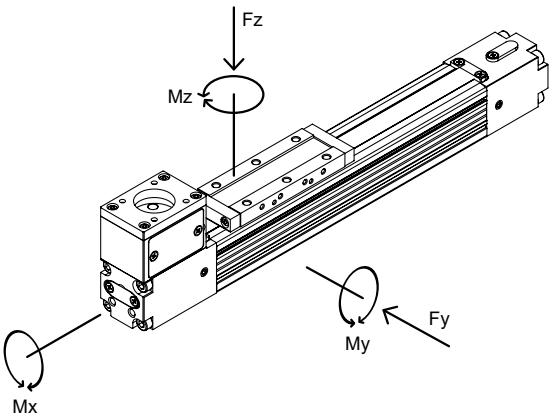
Unit: kg

Model	Basic weight **METFB-25N**	Stroke 100 mm **METFB-25N**	Basic weight (with guide) **METFB-25G***	Stroke 100 mm (with guide) **METFB-25G***
Size				
25	0.97	0.18	1.3	0.27

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

METFB-25 Capacity

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)



Forces & Moments

Model		Mx	My	Mz	Fy	Fz
		Max. allowed moment (N.m)			Max. allowed load(N)	
METFB-25	Without guide	5	12	12	–	300
	With guide	38	42	42	2400	2700

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

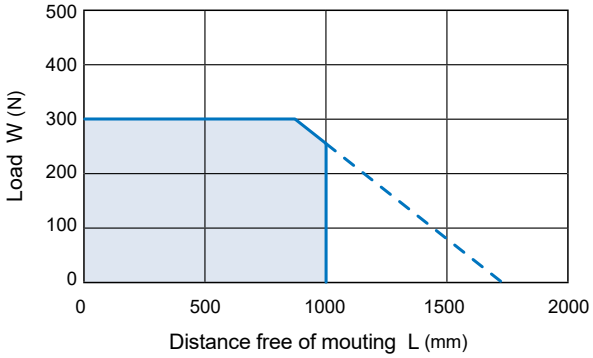
Please refer to the following formula when combined loads are applied.

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

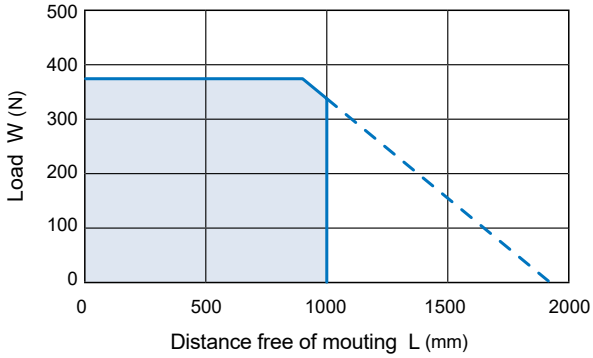
* The A letters show the calculated value.

Positioning of cylinder mountings

METFB-25 Without guide



METFB-25 With guide



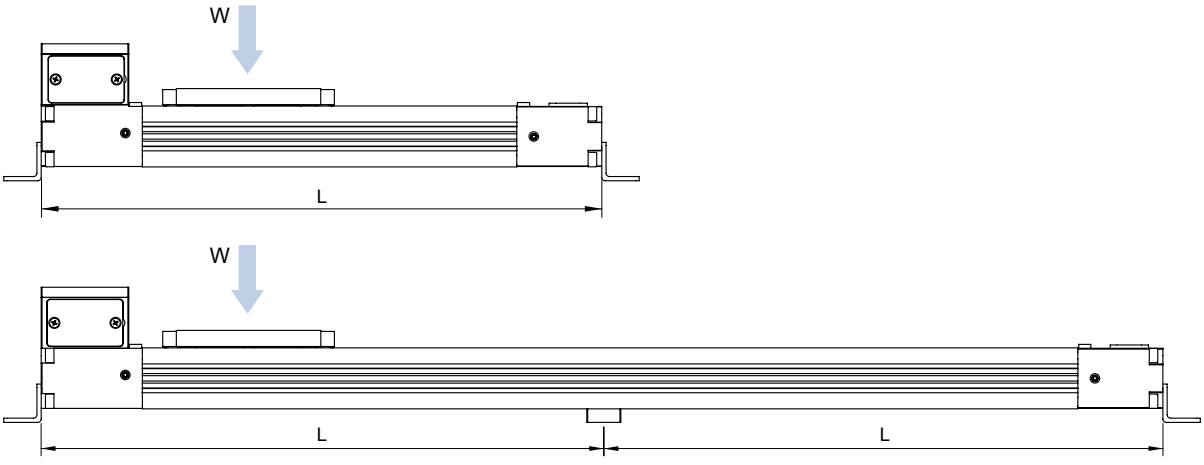


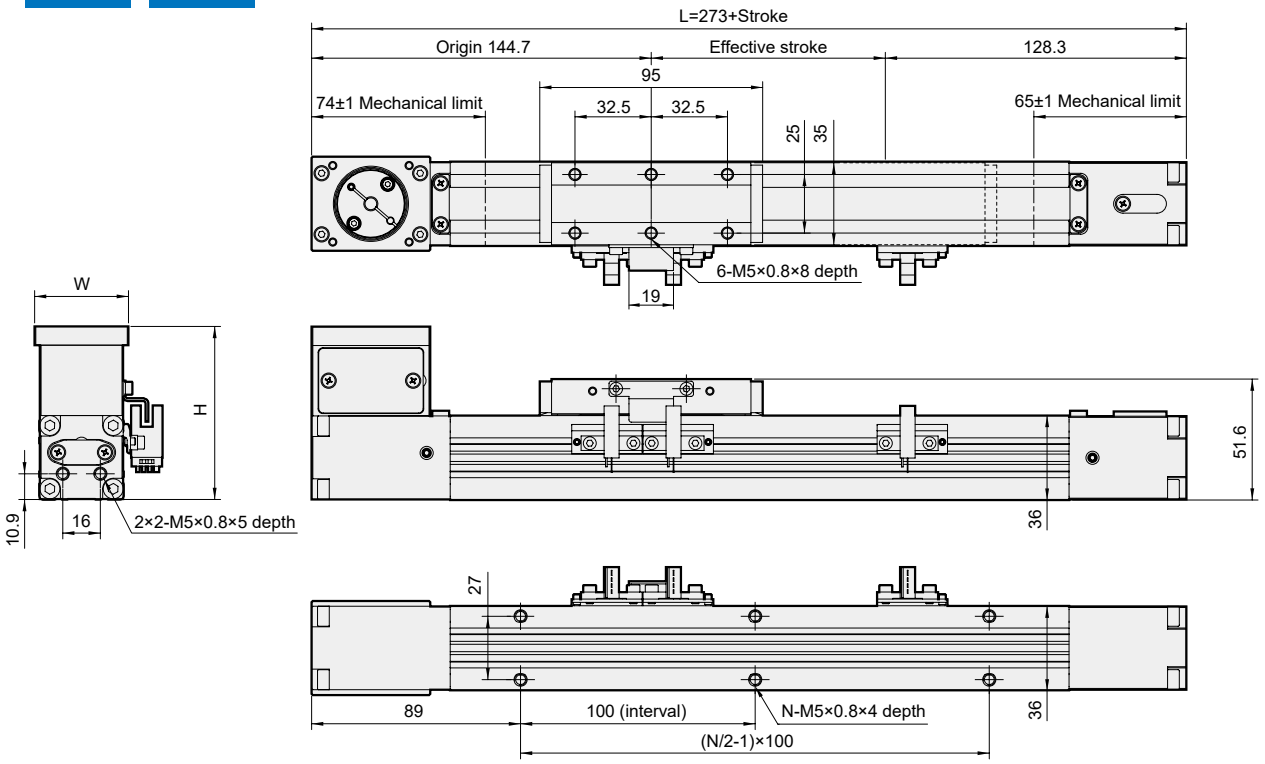
Diagram information

- 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.

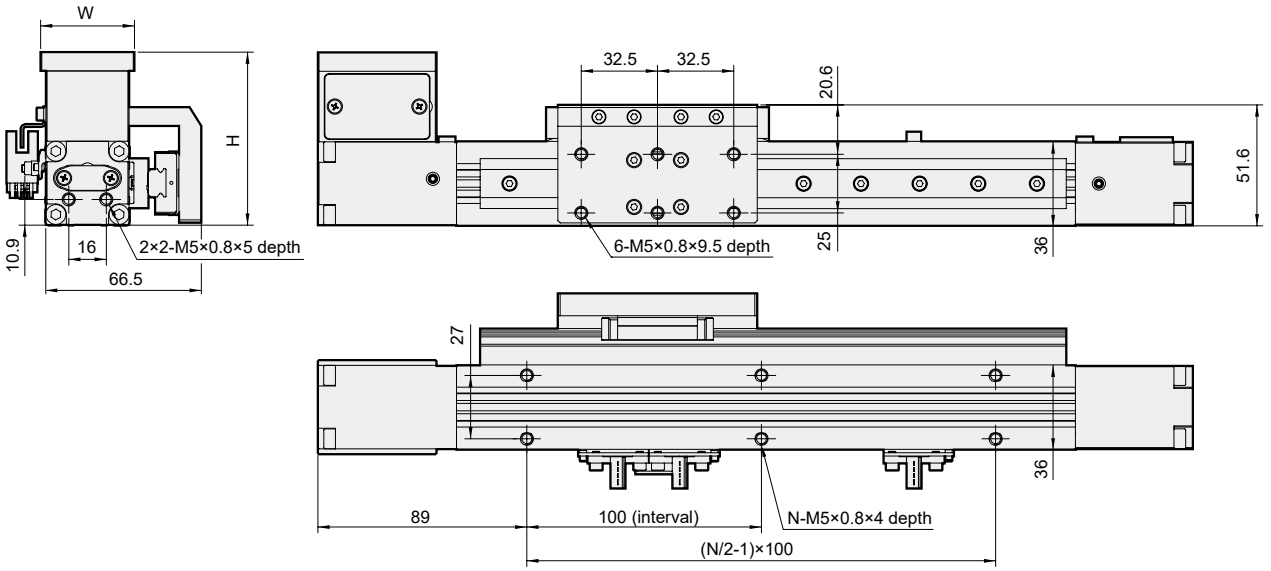
METFB-25 Dimensions

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

N BW Without guide • Motor top side



GL BW Guide left side • Motor top side



Unit: mm

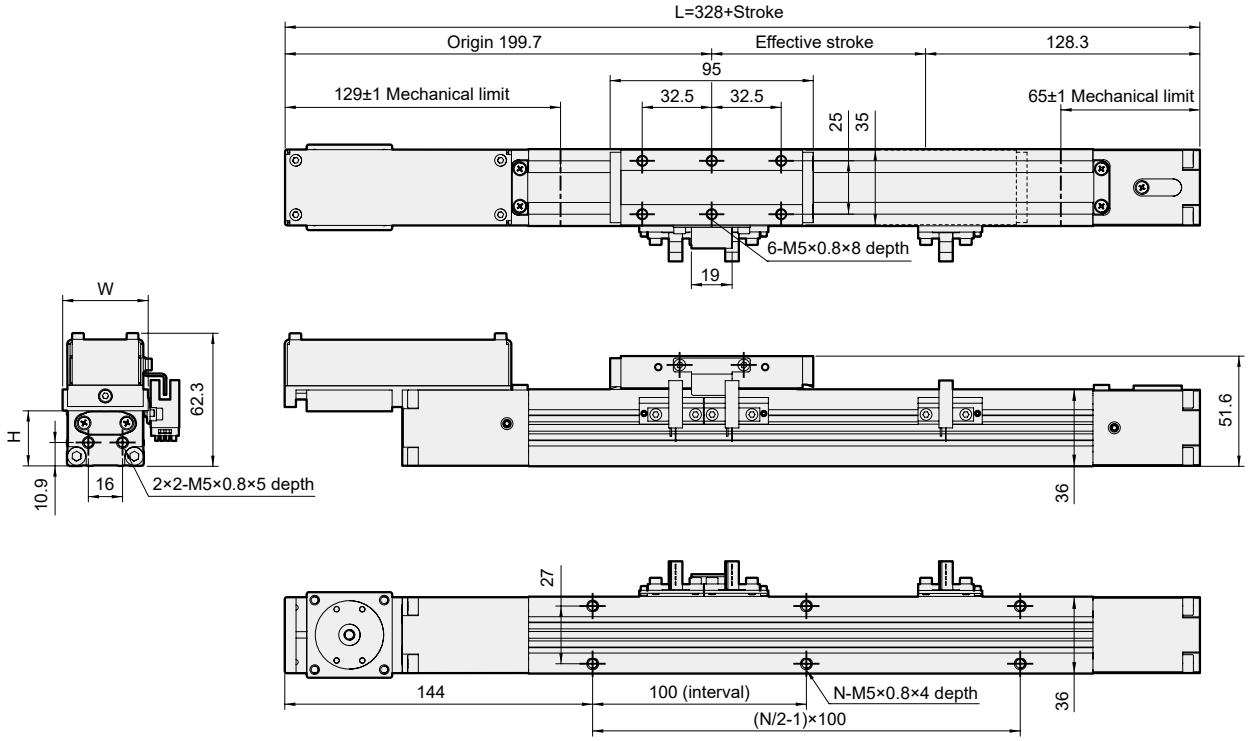
Stroke / Code	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	373	423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123	1173	1223	1273
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24

Stroke / Code	Servo	Step
W	40	42
H	73.8	71.8

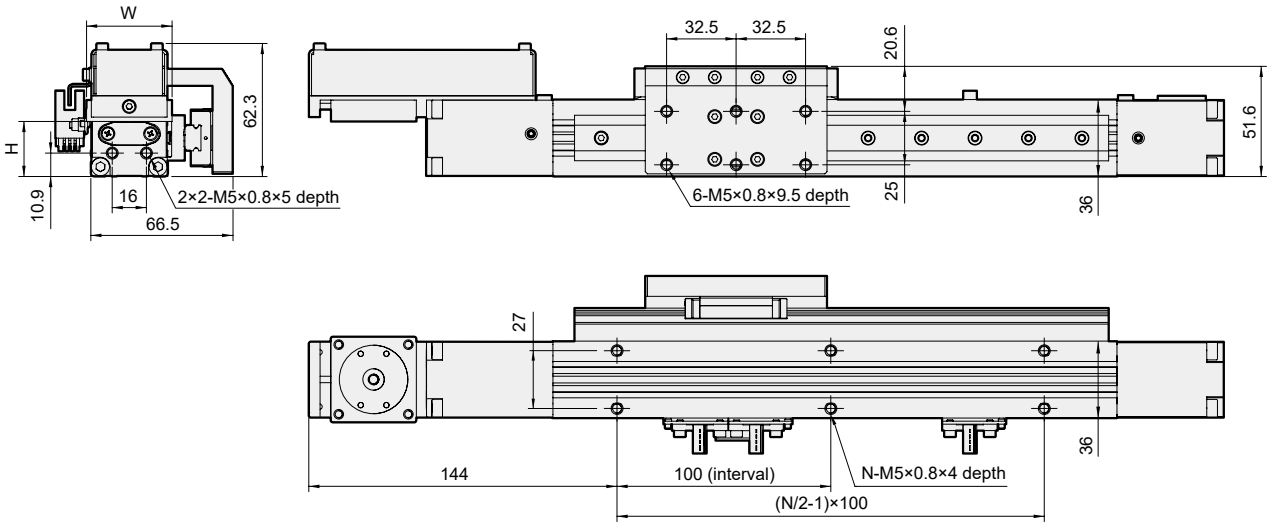
METFB-25 Dimensions

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

N BM Without guide • Motor down side



GL BM Guide left side • Motor down side



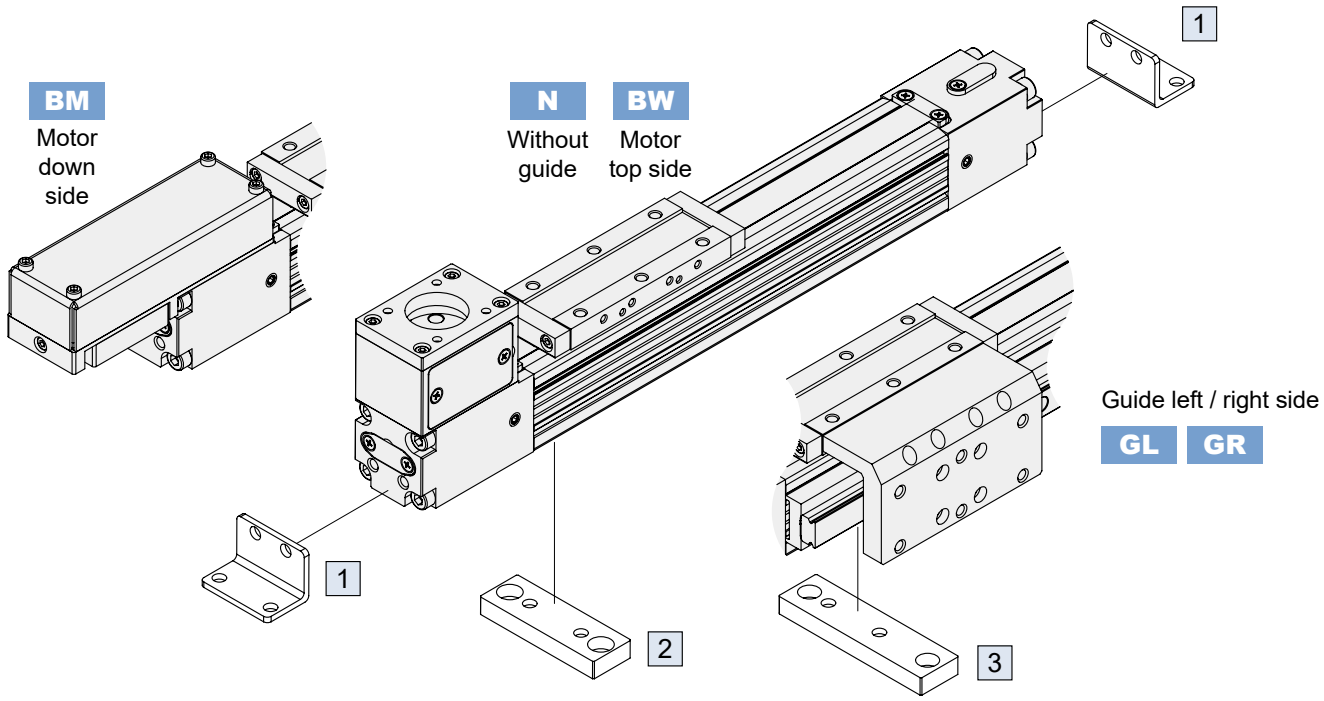
Unit: mm

Stroke / Code	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24

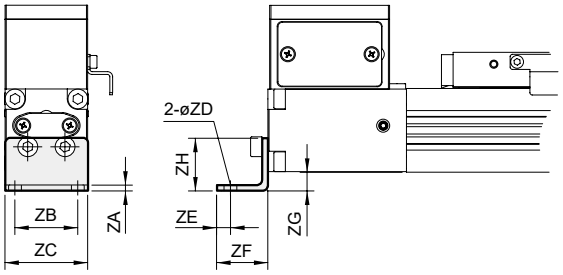
Stroke / Code	Servo	Step
W	40	42
H	25.8	25.8

METFB-25 Mounting accessories

SLIDER ELECTRIC ACTUATOR (WITHOUT MOTOR)

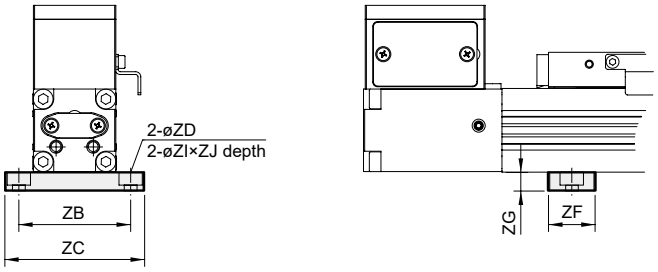


1 End cover bracket (2pcs/set)

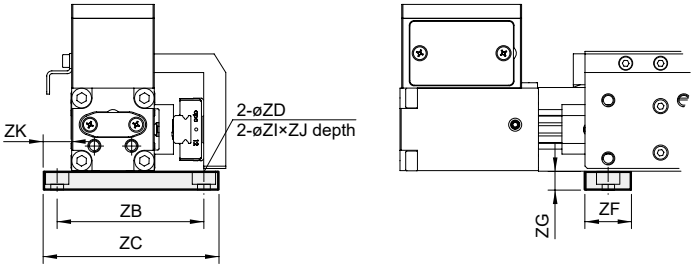


* Not applicable for (BM) motor down side.

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	27	35.5	5.5	6	22	8	22.6	–	–	–	27	**LB-EB2-25**
2	–	48	60	5.5	–	20	8	–	10	5.5	–	21	**MS-EB2-25**
3	–	63	75	5.5	–	20	8	–	10	5.5	12	27	**MS-EB2-25G**