

# METFB-40 series

## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



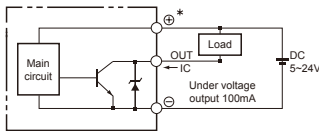
### Specification

Model		METFB-40
Position repeatability	(mm)	±0.05
Lead	(mm/rev)	72
Belt pitch	(mm)	3
Stroke	(mm)	100~2000/50 pitch
No-load torque	(N.m)	0.6
Sensor switch		EE-SX672 (NPN)

Motor type	AC servo	Step
Motor output / size	400W	□56
Max. speed *1	(mm/s)	2400
Work load *2	Horizontal (kg)	15
	Vertical (kg)	—

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

Sensor layout



\*1. Acceleration and deceleration value is set 0.5 second.

\*2. The operating speed under work load is less than maximum speed.

### Order example

**METFB-40 N - 1000 BW - M10 B - A3 - XA00**

Model    Size    Stroke    Special order No.

100~2000 mm  
50 mm pitch

Guide installation		Motor position		Motor band		Power output		Brakes		Limit sensor	
<b>N</b>	Without guide	<b>BW</b>	Motor top side	<b>M</b>	Mitsubishi	<b>40</b>	400W Servo	<b>-</b>	No brake	<b>-</b>	No sensor
<b>GR</b>	Guide right side	<b>BM</b>	Motor bottom side	<b>P</b>	Panasonic			<b>B</b>	With brake	<b>A1</b>	1 pc
<b>GL</b>	Guide left side			<b>Y</b>	Yaskawa			<b>A2</b>	2 pcs		
				<b>D</b>	Delta			<b>A3</b>	3 pcs		
				<b>S</b>	Mindman	<b>56</b>	□56 Step				

### Weight

Unit: kg

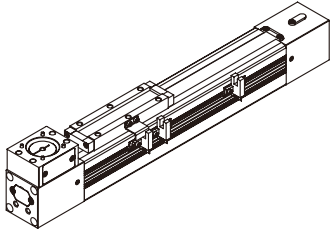
Model	Basic weight METFB-40N	Stroke 100 mm METFB-40N	Basic weight (with guide) METFB-40G*	Stroke 100 mm (with guide) METFB-40G*
Size				
ø25	2.96	0.5	3.73	0.62

\* The form is the weight of the type of motor top side.

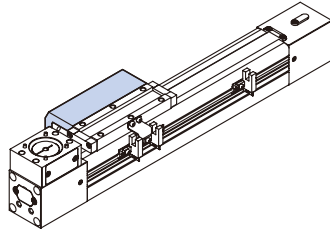
# METFB-40 Motor specification

## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

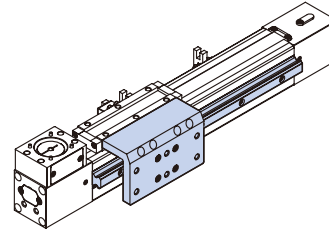
### Guide installtion



**N** Without guide

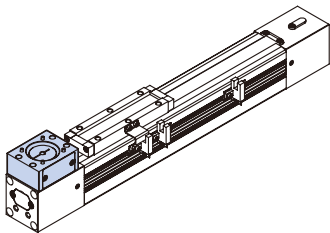


**GR** Guide right side

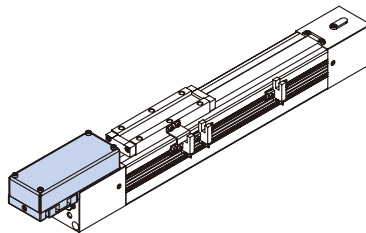


**GL** Guide left side

### Motor position



**BW** Motor top side



**BM** Motor bottom side

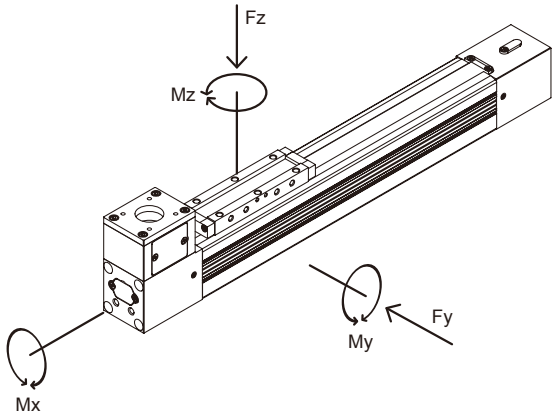
### Standard motors

Brand	Mark	Power output	Motor model (Without brake)	Motor model (With brake)	Motor rod dia. (mm)	Motor mount P.C.D (mm)	Mounting port (mm)
Mitsubishi	<b>M</b>	400W	HG-KN43J	HG-KN43B J	ø14	70	4-ø5.8
Panasonic	<b>P</b>	400W	MHMF042L1U2M	MHMF042L1V2M	ø14	70	4-ø4.5
Yasukawa	<b>Y</b>	400W	SGM7J-04A7A21	SGM7J-04A7A2C	ø14	70	4-ø5.5
Delta	<b>D</b>	400W	ECMA-C20604PS	ECMA-C20604QS	ø14	70	4-ø5.5
Mindman	<b>S</b>	□56	-	-	ø6.35	□47.14	4-ø5

\* If your inquiry is not included in above table, please kindly contact us.

# METFB-40 Capacity

## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



### Forces & Moments

Model	Mx	My	Mz	Fy	Fz	
	Max. allowed moment (N.m)			Max. allowed load(N)		
METFB-40	Without guide	10	30	30	–	600
	With guide	78	90	90	4000	4600

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

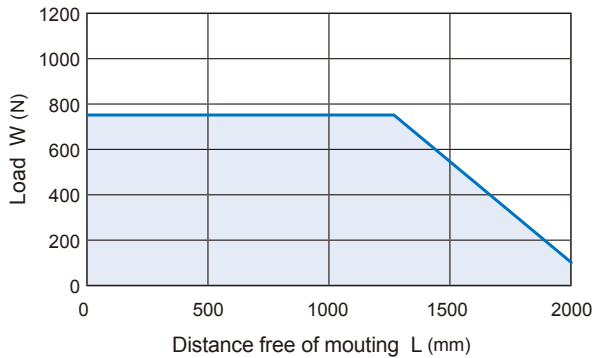
Please refer to the following formula when combined loads are applied.

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

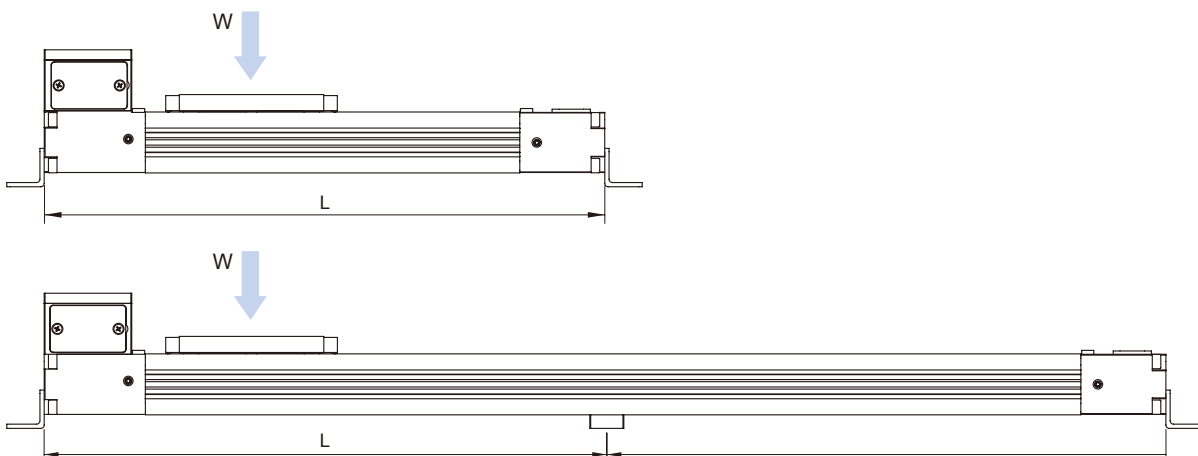
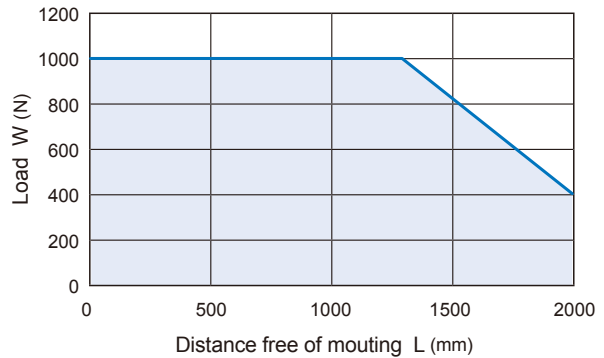
\* The A letters show the calculated value.

### Positioning of cylinder mountings

METFB-40 Without guide



METFB-40 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-40 Dimensions

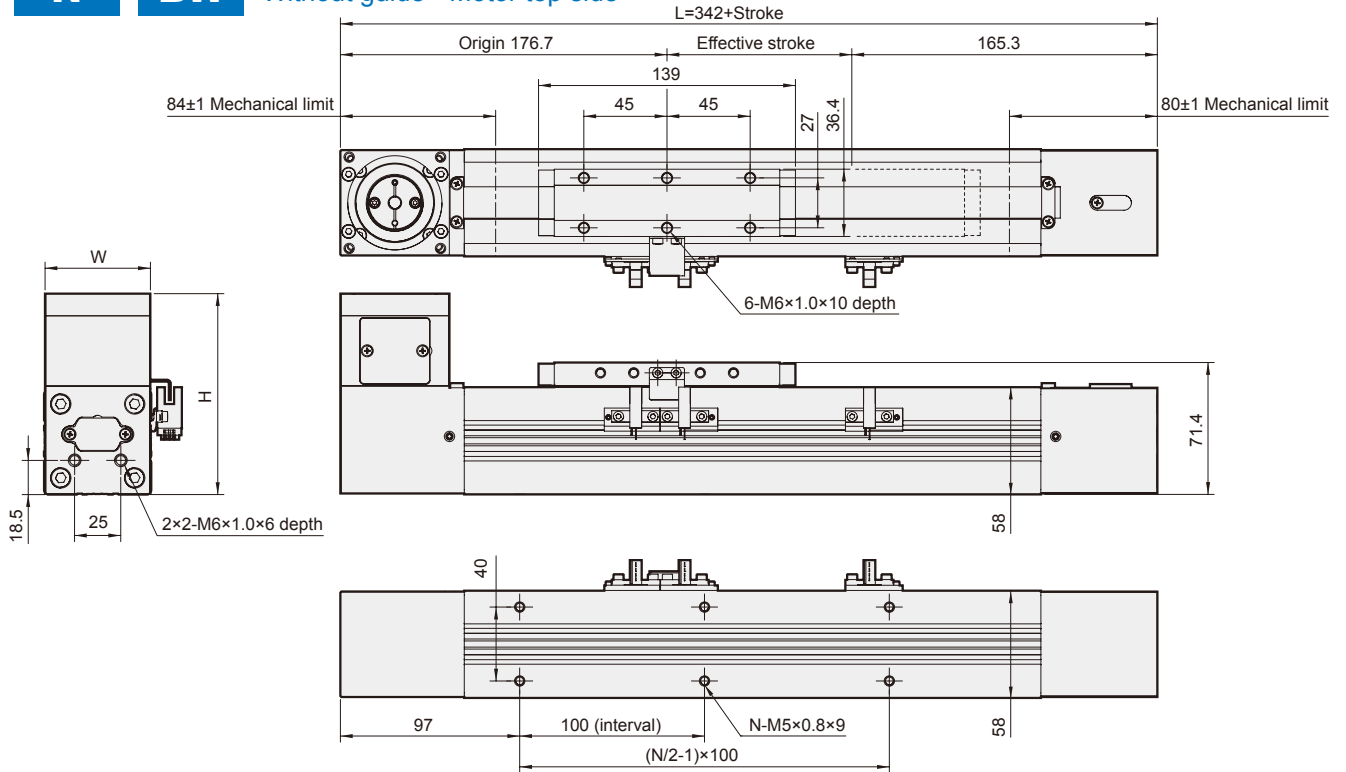
## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



**N**

**BW**

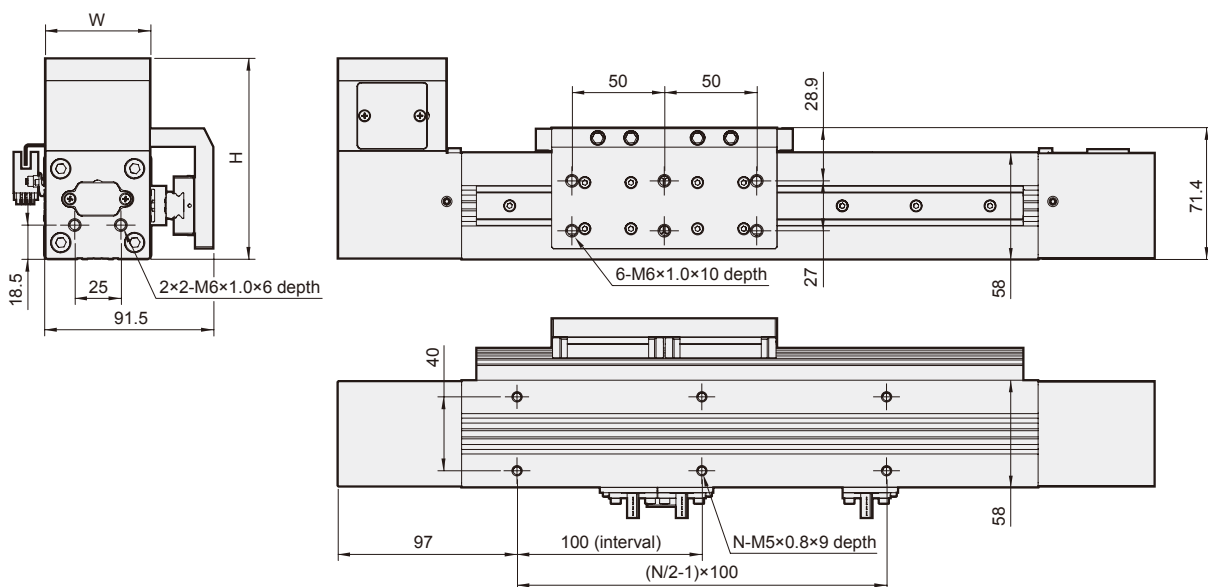
Without guide • Motor top side



**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
<b>L</b>	442	542	642	742	842	942	1042	1142	1242	1342	1442	1542	1642	1742	1842	1942	2042	2142	2242	2342
<b>N</b>	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44

Stroke Code	Servo	Step
<b>W</b>	57	57
<b>H</b>	108.7	102.7

# METFB-40 Dimensions

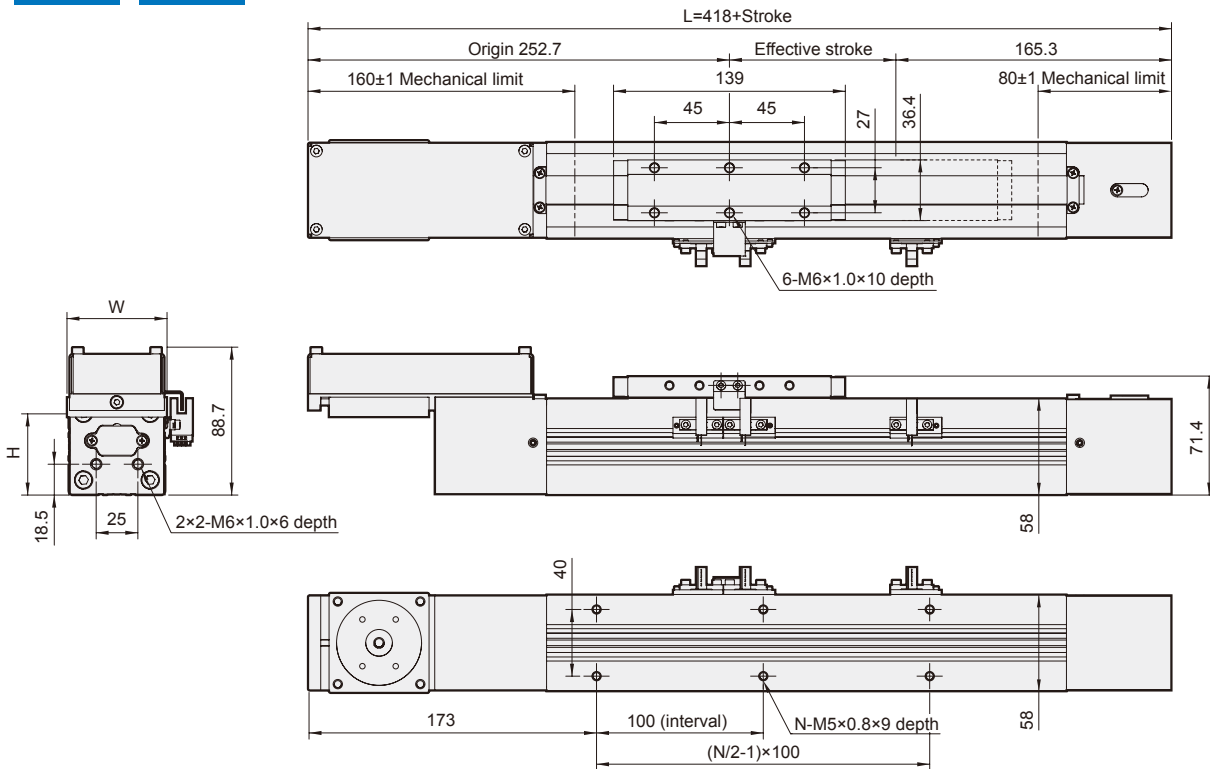
## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



**N**

**BM**

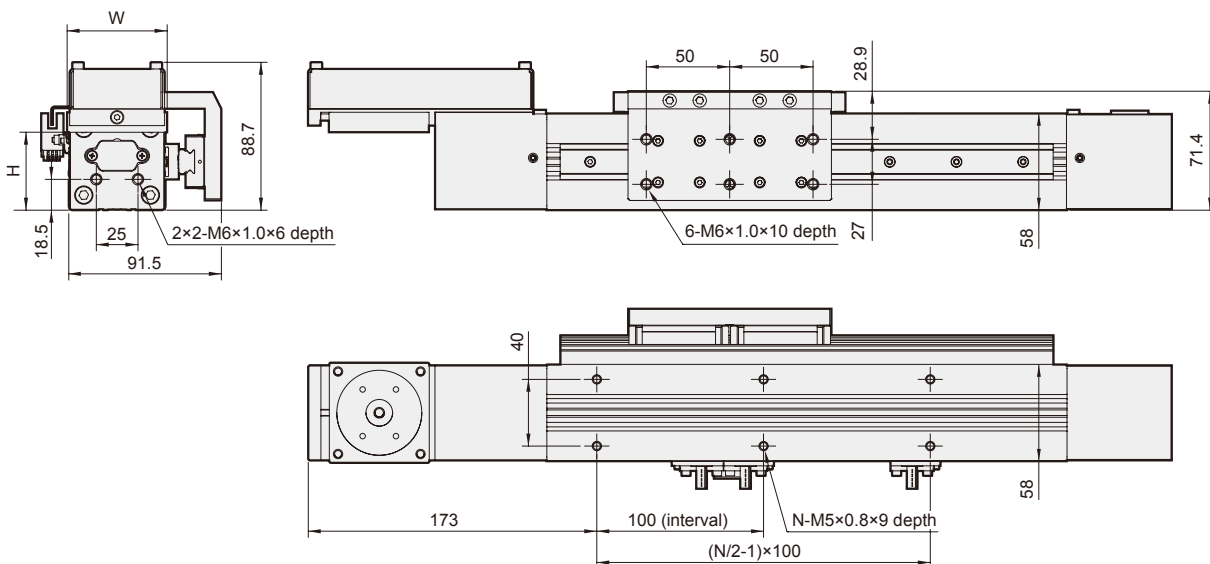
Without guide • Motor bottom side



**GL**

**BM**

Guide left side • Motor bottom 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
<b>L</b>	518	618	718	818	918	1018	1118	1218	1318	1418	1518	1618	1718	1818	1918	2018	2118	2218	2318	2418
<b>N</b>	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44

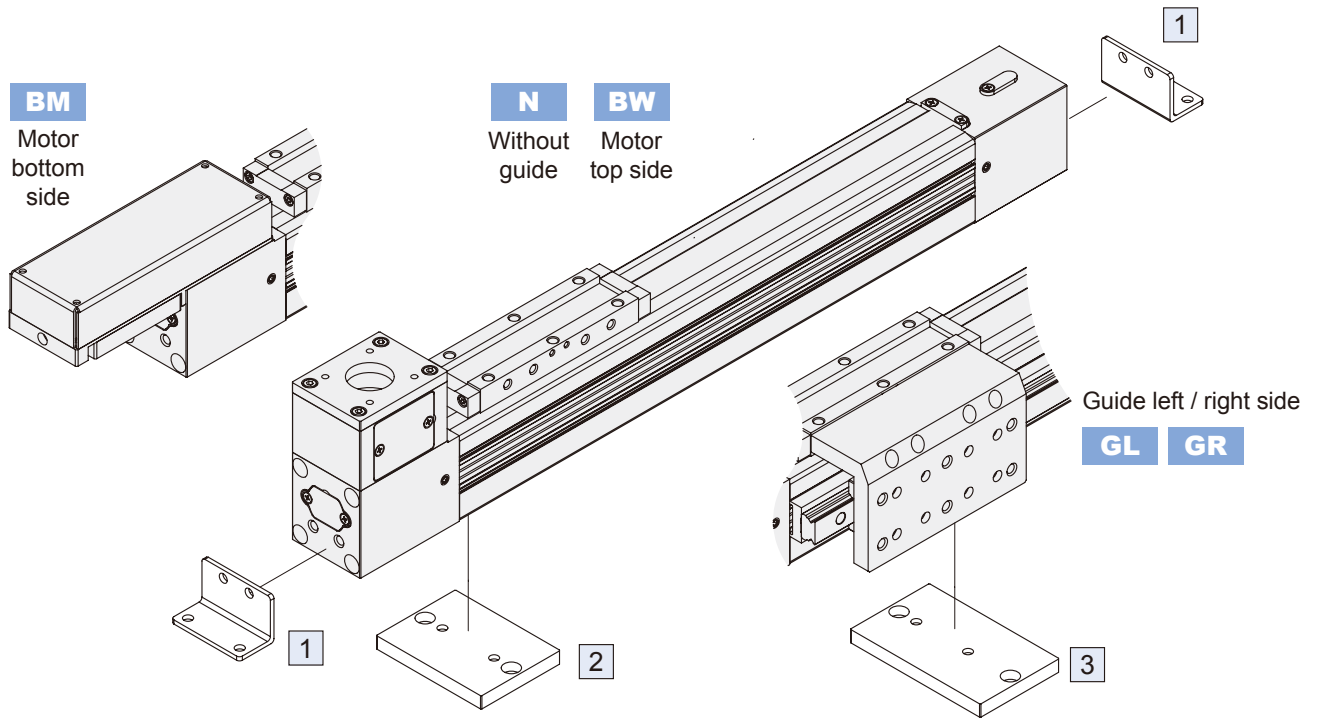
Stroke Code	Servo	Step
<b>W</b>	60	57
<b>H</b>	46.7	48.7

# METFB-40 Mounting accessories

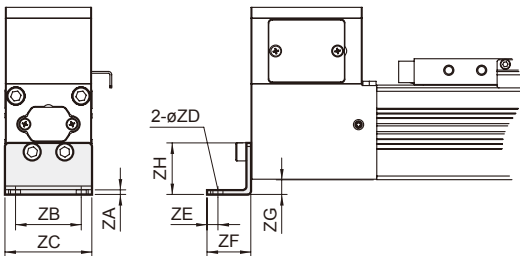
## SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



Mindman

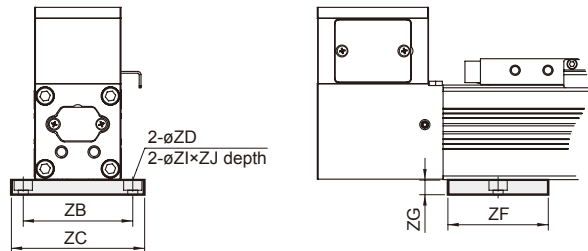


1 End cover bracket (2pcs/set)

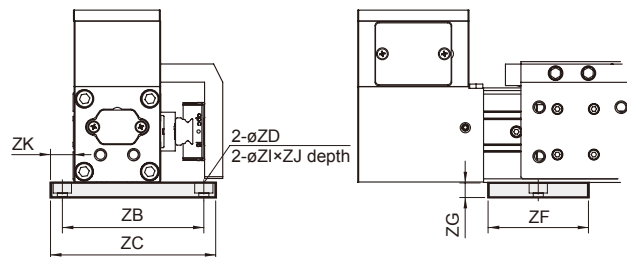


\* Not applicable for (BM) motor bottom side.

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	40	57	5.5	6	24	8	31.5	-	-	-	59	ETFB40-1
2	-	70	85	5.5	-	60	8	-	10	5.5	-	105	ETFB40-2
3	-	88	103	5.5	-	60	8	-	10	5.5	13.5	128	ETFB40-3