

# METS-12 series



## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITHOUT MOTOR)

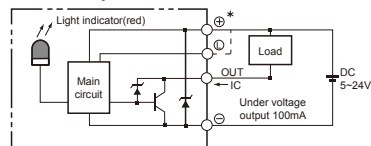
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### Specification

Model		METS-12			
Repeatability (mm)		±0.01			
Belt lead (mm)		5	10	16	20
Max. speed (mm/s)		250	500	800	1000
Servo motor		100W			
Max. payload (kg)	Horizontal	50	30	22	18
	Vertical	12	8	5	3
Rated thrust (N)		341	170	106	85
Stroke (mm)		100~1050 / 50 pitch			
Ball screw $\phi$ (mm)		C7 $\phi$ 16			
High rigidity linear guide (mm)		W12 $\times$ H7.5			
Coupling (mm)		10 $\times$ 8			
Home sensor	Outside	EE-SX672 (NPN)			
	Built in	EE-SX674 (NPN)			

Sensor layout



### Order example

**METS-12 - L16 - 100 - M - M10B - C4 - 0001**

Model

Spec.

Stroke

100~1050 mm  
50 mm pitch

Special order no.

#### Ball screw brand

L	T-Standard MIT
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#### Ball screw lead

Spec.	Lead
05	5 mm
10	10 mm
16	16 mm
20	20 mm

#### Motor position

Spec.	Position
M	Built-in
BC	Exposed
BM	On lower side
BR	On right side
BL	On left side

#### Motor brand, power output, brakes

100W SERVO motor			
Spec.	Brand	Power	Brake
M	Mitsubishi	10	100W
P	Panasonic		
Y	Yaskawa		
T	Delta		
B			

\* Need not show B with no brake.

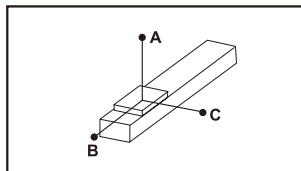
#### Home sensor

In side	
A	Motor side
B	Opposite motor side
Out side	
C	Motor side
D	Opposite motor side
No sensor	
E	None

#### Limit sensor

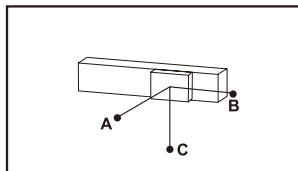
In side	
1	1 Pc
2	2 Pcs
Out side	
3	1 Pc
4	2 Pcs
No sensor	
5	None

### Allowable overhang



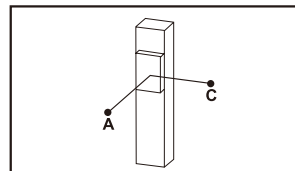
Unit: mm

Horizontal installation		A	B	C
Lead 5	30kg	1200	158	311
	50kg	1100	124	124
	-	-	-	-
Lead 10	15kg	1000	190	250
	25kg	900	190	170
	30kg	850	124	122
Lead 16	5kg	2150	1365	982
	10kg	1190	462	427
	22kg	1270	242	291
Lead 20	5kg	1936	1229	882
	10kg	1039	418	387
	15kg	1073	220	264



Unit: mm

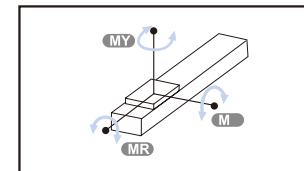
Wall installation		A	B	C
Lead 5	10kg	126	60	800
	20kg	70	30	600
	30kg	50	15	476
Lead 10	10kg	246	180	700
	20kg	150	80	515
	30kg	72	32	422
Lead 16	5kg	1068	976	1579
	10kg	405	278	776
	22kg	220	107	680
Lead 20	5kg	958	875	1420
	10kg	361	248	696
	15kg	107	95	610



Unit: mm

Vertical installation		A	C
Lead 5	5kg	412	398
	10kg	394	356
	12kg	357	355
Lead 10	5kg	711	578
	6kg	534	414
	8kg	411	376
Lead 16	1kg	1210	1210
	2kg	1174	1174
	5kg	650	650
Lead 20	-	-	-
	-	-	-
	3kg	1030	802

### Static loading moment



Unit: N.m

MY	150
MP	150
MR	130

### Standard servo motors

Brand	Mark	Brake	Watt	AC-Voltage	Motor model	Compatible driver model
Mitsubishi	<b>M</b>	No brake(Horizontal type)	100	220	HP-KP13	MR-J3-10A
		With brake(Vertical type)	100	220	HP-KP13B	MR-J3-10A
Panasonic	<b>P</b>	No brake(Horizontal type)	100	220	MSMD012P1S	MADDT1205
		With brake(Vertical type)	100	220	MSMD012P1T	MADDT1205
Delta	<b>T</b>	No brake(Horizontal type)	100	220	ECMA-C20401ES	ASD-B20121-B
		With brake(Vertical type)	100	220	ECMA-C20401FS	ASD-B20121-B

# METS-12 Dimensions – Servo motor 100W

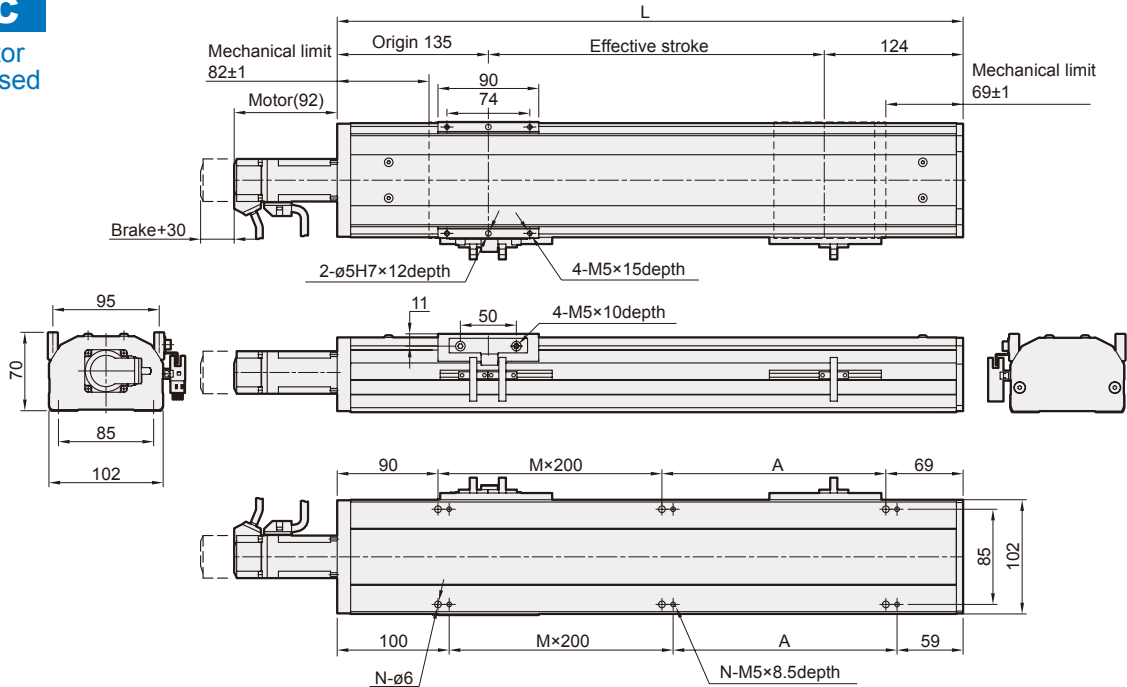


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### BC

Motor exposed

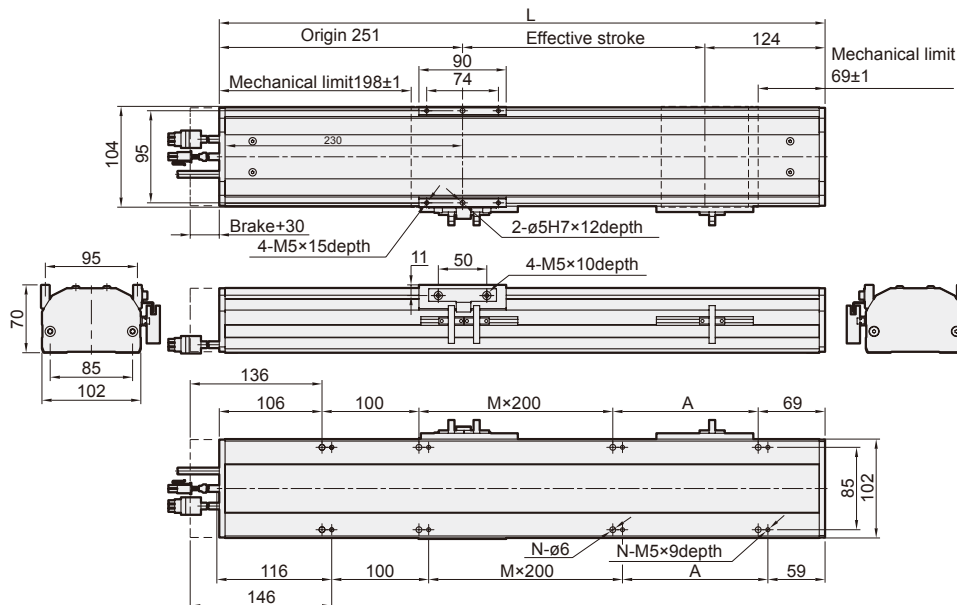


Unit: mm

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>L</b>	359	409	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109	1159	1209	1259	1309
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
<b>N</b>	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
<b>KG</b>	5.07	5.46	5.84	6.23	6.62	7.01	7.04	7.78	8.17	8.56	8.95	9.34	9.72	10.11	10.5	10.89	11.28	11.66	12.05	12.44

### M

Motor built-in



Unit: mm

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>L</b>	475	525	575	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275	1325	1375	1425
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
<b>N</b>	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
<b>KG</b>	5.54	5.93	6.32	6.71	7.1	7.49	7.88	8.27	8.66	9.05	9.44	9.83	10.22	10.61	11	11.39	11.78	12.17	12.56	12.95

# METS-12 Dimensions – Servo motor 100W

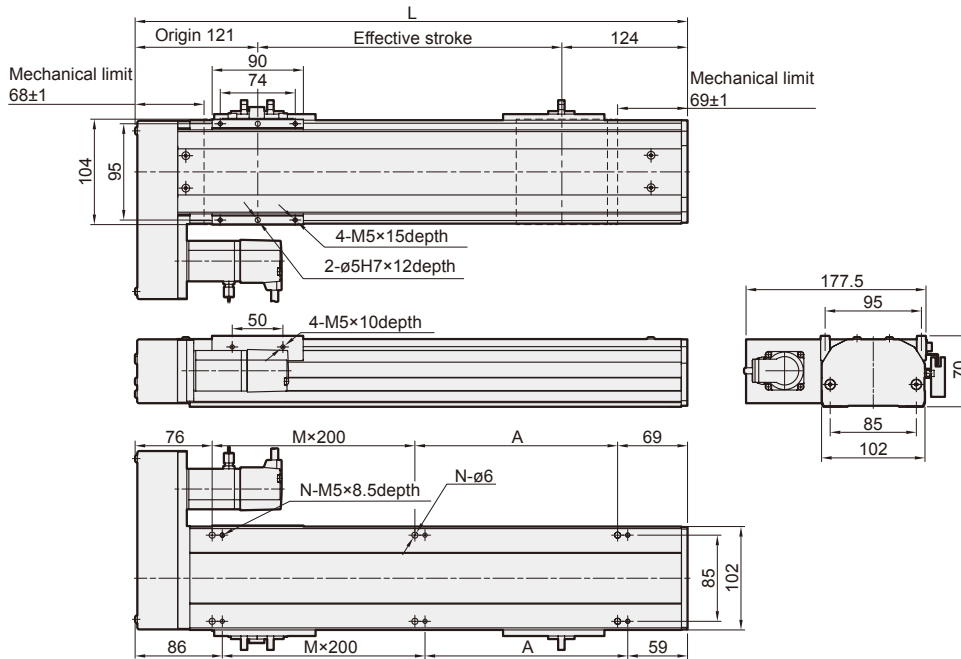


## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITHOUT MOTOR)

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**BL**

Motor on left side

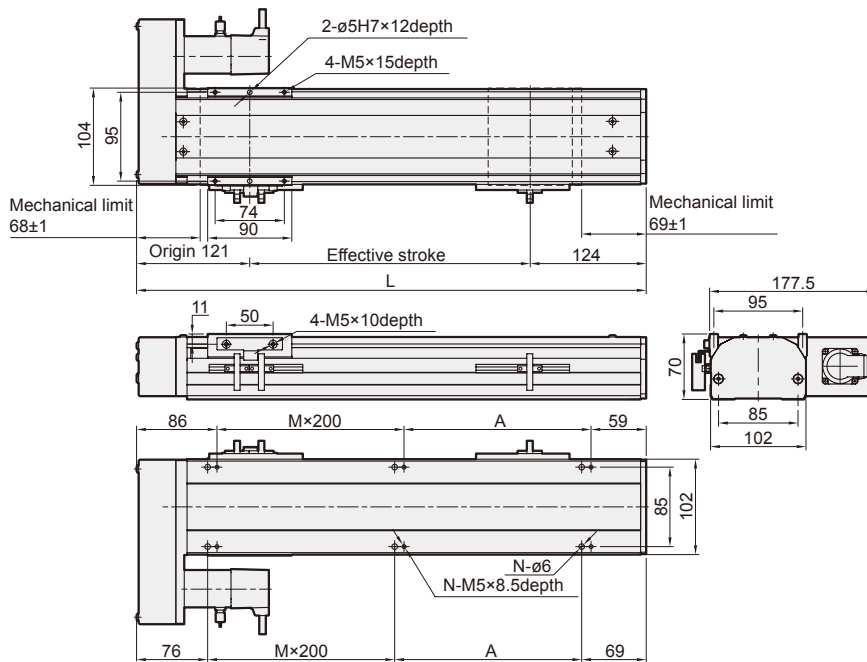


Unit: mm

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>L</b>	345	395	445	495	545	595	645	695	745	795	845	895	945	995	1045	1095	1145	1195	1245	1295
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
<b>N</b>	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
<b>KG</b>	5.45	5.84	6.23	6.61	7	7.39	7.77	8.16	8.55	8.94	9.32	9.71	10.1	10.48	10.87	11.26	11.64	12.03	12.42	12.81

**BR**

Motor on right side



Unit: mm

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>L</b>	345	395	445	495	545	595	645	695	745	795	845	895	945	995	1045	1095	1145	1195	1245	1295
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
<b>N</b>	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
<b>KG</b>	5.45	5.84	6.23	6.61	7	7.39	7.77	8.16	8.55	8.94	9.32	9.71	10.1	10.48	10.87	11.26	11.64	12.03	12.42	12.81

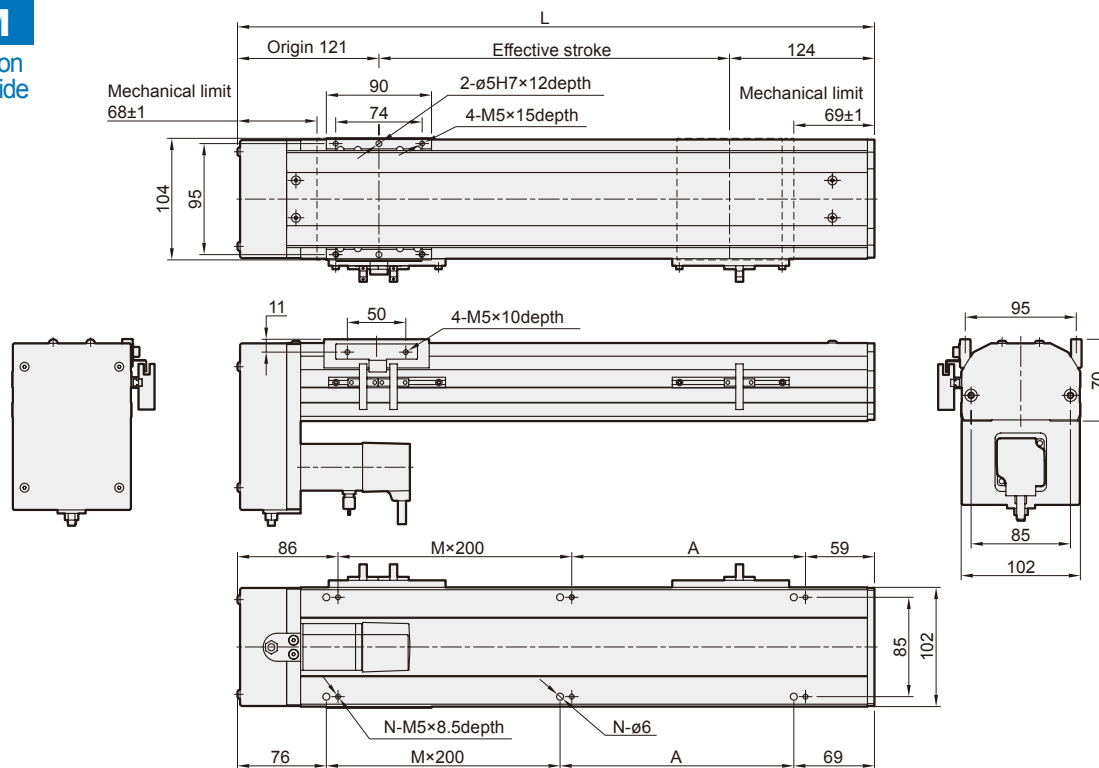
# METS-12 Dimensions – Servo motor 100W



## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITHOUT MOTOR)

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**BM**  
Motor on lower side



Unit: mm

Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
<b>L</b>	345	395	445	495	545	595	645	695	745	795	845	895	945	995	1045	1095	1145	1195	1245	1295
<b>A</b>	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
<b>M</b>	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
<b>N</b>	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
<b>KG</b>	5.45	5.84	6.23	6.61	7	7.39	7.77	8.16	8.55	8.94	9.32	9.71	10.1	10.48	10.87	11.26	11.64	12.03	12.42	12.81