METS2-10 series

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

mindman

Selection table
Applications
Inner structure
Measuring tools
Reference data
Motor selection
Caution for safety
(Read before installing)



Environment	Standard
Actuation type	Ball screw
Servo motor	50/100/200/400W
Guide type	Linear guide

Feature

- Modular product can save your time of designing and assembly, and greatly increase your development efficiency.
- High stiffness body made with integrated aluminum extrusion.
- It provides several position for motor installment.
- It is available for customized service.

Specification

Model			METS2-10		
Positioning repeatability		(mm)	±0.01		
Lead		(mm)	5	10	20
Max. speed		(mm/s)	250	500	1000
Stroke		(mm)	100~1000		
Ball screw O.D.		(mm)	C7 ø16		
Coupling diameter		(mm)	ø10		
Slot-type photomicro sensor			RLT		
AC servo motor		(W)	100 (50)		
Rated load	Horizontal	(kg)	50	30	18
	Vertical	(kg)	12	8	3
Max. thrust		(N)	341 (170)	170 (85)	85 (42)
AC servo motor		(W)	400 (200)		
Rated load	Horizontal	(kg)	50	30	18
	Vertical	(kg)	12	8	3
Max. thrust		(N)	1366 (683)	682 (341)	348 (174)

*1. Reduce the speed when the stroke exceeds 750 mm due to resmance.
*2. Acceleration and deacceleration value are set to 0.2 second.

Order example

METS2 – 10 – L05 – 100 – BC – M10 B

Model

Size

Ball screw lead

L05	5 mm
L10	10 mm
L20	20 mm

Stroke

100~1000 mm

Motor position

M	Built-in (*1)
BC	Direct connection
BM	Lower side
BR	Right side
BL	Left side

Flange (For motor installation)

Applicable motor brand (*2)		Dimensions	
M	Mitsubishi	10	50/100W servo
	Yaskawa	40	200/400W
	Delta		
P	Panasonic	10	50/100W
		20	200W
		40	400W

Brakes (*3)

–	No brake
B	With brake

*1. Not applicable for 200/400W servo.
*2. Motor not included. Please refer to the "Motor Selection Table" for details.
*3. Determination is required only when "Built-in" type is chosen.

Slot-type photomicro sensor set

RZ – ET1 – 10 – N

Sensor set

* With RLT sensor, bolt, nut and cable 2m.

Size

Sensor type

N	NPN
P	PNP

Accessory kits

AK – ET1 – 10 – 1

Accessory kits

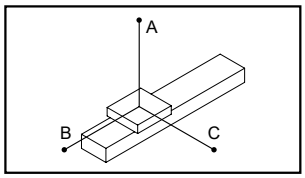
* With light baffle, mounting seat, and bolt.

Size

Mounting seat quantity

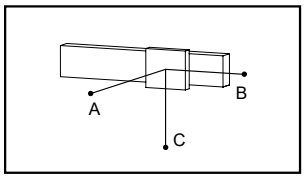
1	1 pc
2	2 pcs

Allowable overhang



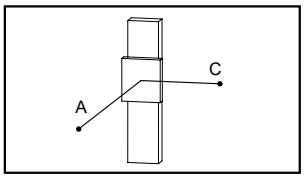
Unit: mm

Horizontal installation		A	B	C
AC servo motor 100W / 200W				
Lead 5	30kg	547	42	42
	40kg	391	29	29
	50kg	298	22	21
Lead 10	15kg	521	84	80
	25kg	298	47	44
	30kg	242	37	35
Lead 20	5kg	675	224	193
	10kg	330	107	93
	18Kg	175	55	48



Unit: mm

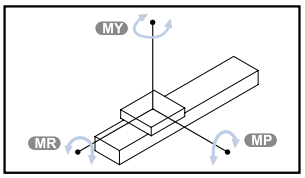
Wall installation		A	B	C
AC servo motor 100W / 200W				
Lead 5	25kg	52	53	670
	35kg	35	35	455
	50kg	21	22	298
Lead 10	10kg	124	131	770
	20kg	58	61	382
	30kg	35	37	242
Lead 20	6kg	160	185	562
	12kg	76	88	272
	18Kg	48	55	175



Unit: mm

Vertical installation		A	C
AC servo motor 100W / 200W			
Lead 5	5kg	310	310
	8kg	192	192
	12kg	129	129
Lead 10	4kg	344	344
	8kg	172	172
	–	–	–
Lead 20	2kg	546	546
	3kg	364	364
	–	–	–

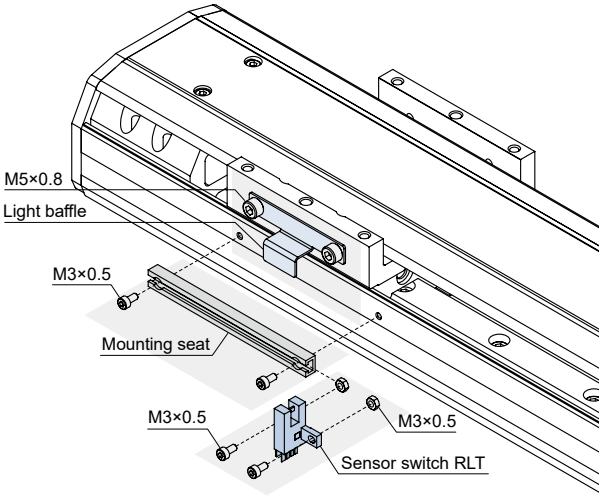
Static loading moment



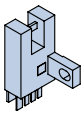
Unit: N.m

Horizontal	
AC servo motor 100W / 200W	
MY	110
MP	110
MR	120

Slot-type photomicro sensor mounting

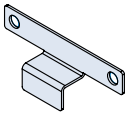
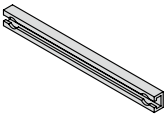


Sensor set

	 M3	 M3
Sensor switch (×1)	Bolt (×2)	Nut (×2)

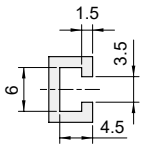
* With cable 2m.

Accessory kits

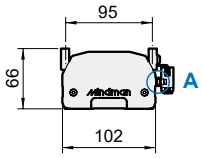
	 M5		 M3
AK-ET1-10-1			
Light baffle (×1)	Bolt (×2)	Mounting seat (×1)	Bolt (×2)
AK-ET1-10-2			
Light baffle (×1)	Bolt (×2)	Mounting seat (×2)	Bolt (×4)

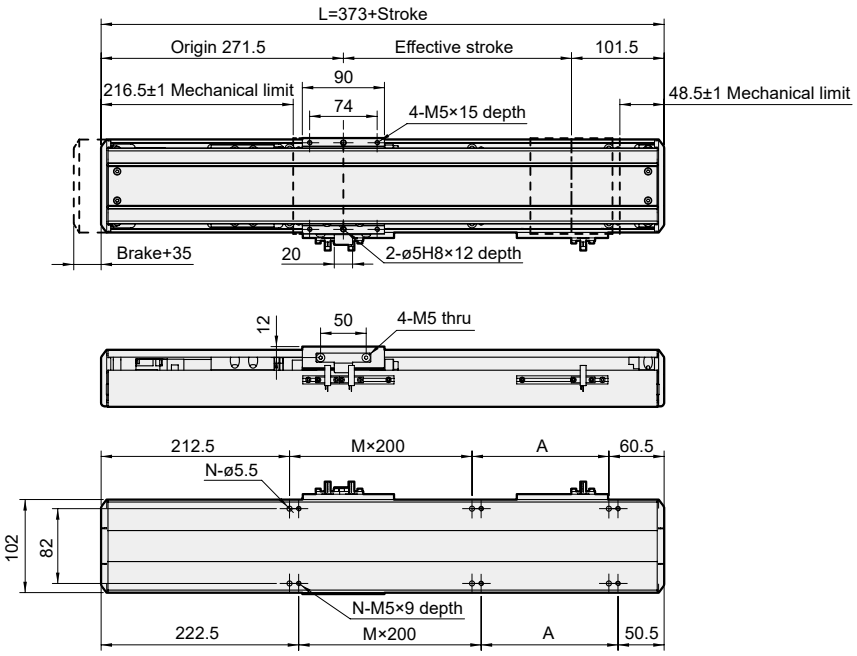
Dimensions

M
Motor built-in



A view





Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
Weight (kg)	4.77	5.14	5.51	5.88	6.26	6.63	7.00	7.37	7.74	8.12	8.49	8.86	9.23	9.60	9.98	10.35	10.72	11.09	11.46

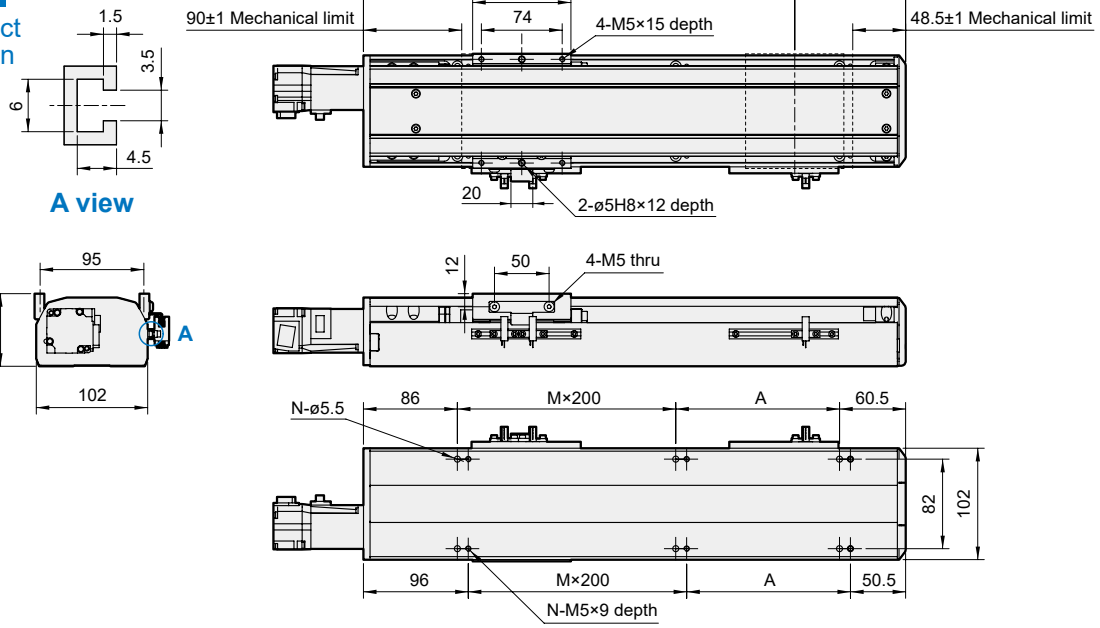
* The brake of gross weight + 0.14 kg.

METS2-10 Dimensions

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

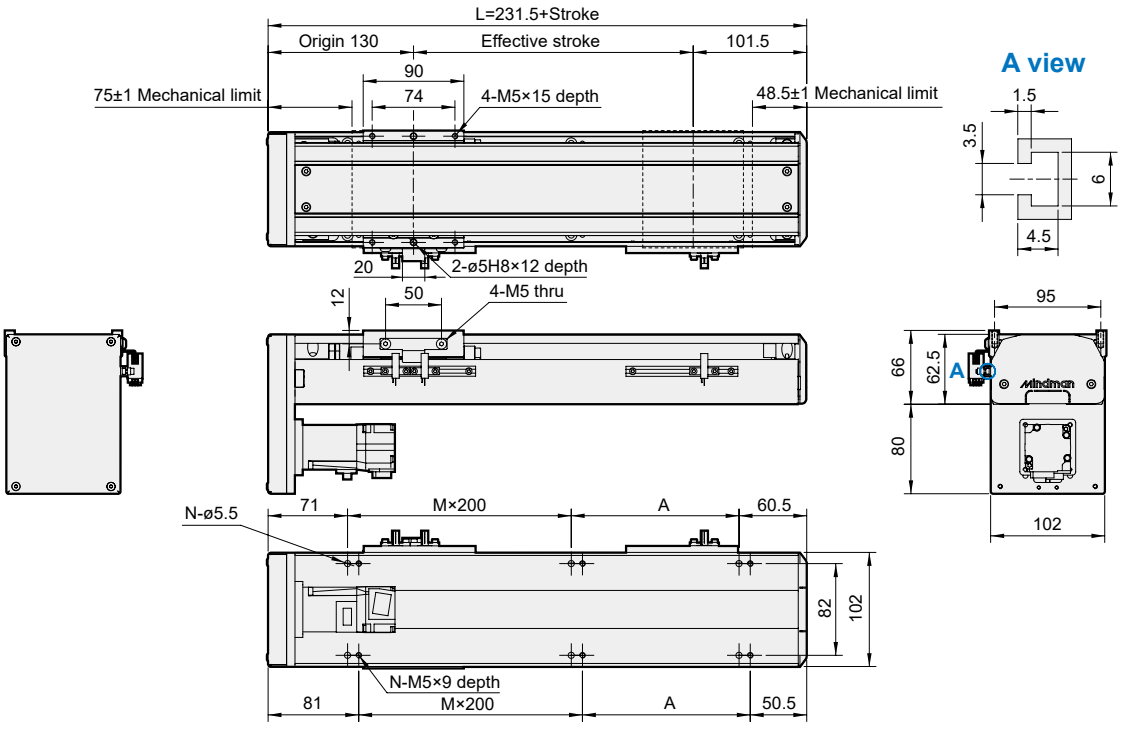
BC

Motor direct connection



BM

Motor on lower side

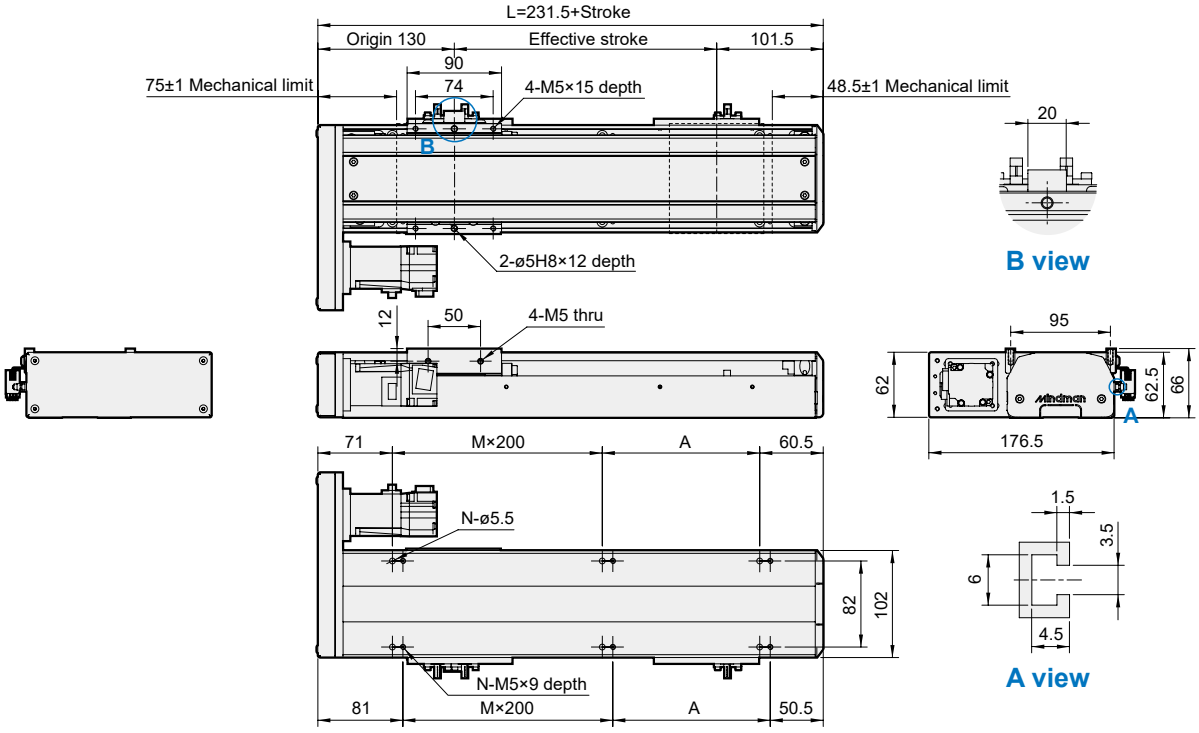


Stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	BC	346.5	396.5	446.5	496.5	546.5	596.5	646.5	696.5	746.5	796.5	846.5	896.5	946.5	996.5	1046.5	1096.5	1146.5	1196.5	1246.5
	BM	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5
A		200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M		0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N		4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
Weight (kg)	BC	4.41	4.79	5.16	5.53	5.90	6.27	6.65	7.02	7.39	7.76	8.13	8.51	8.88	9.25	9.62	9.99	10.37	10.74	11.11
	BM	4.44	5.22	5.18	5.55	5.93	6.30	6.67	7.04	7.41	7.79	8.16	8.53	8.90	9.27	9.65	10.02	10.39	10.76	11.13

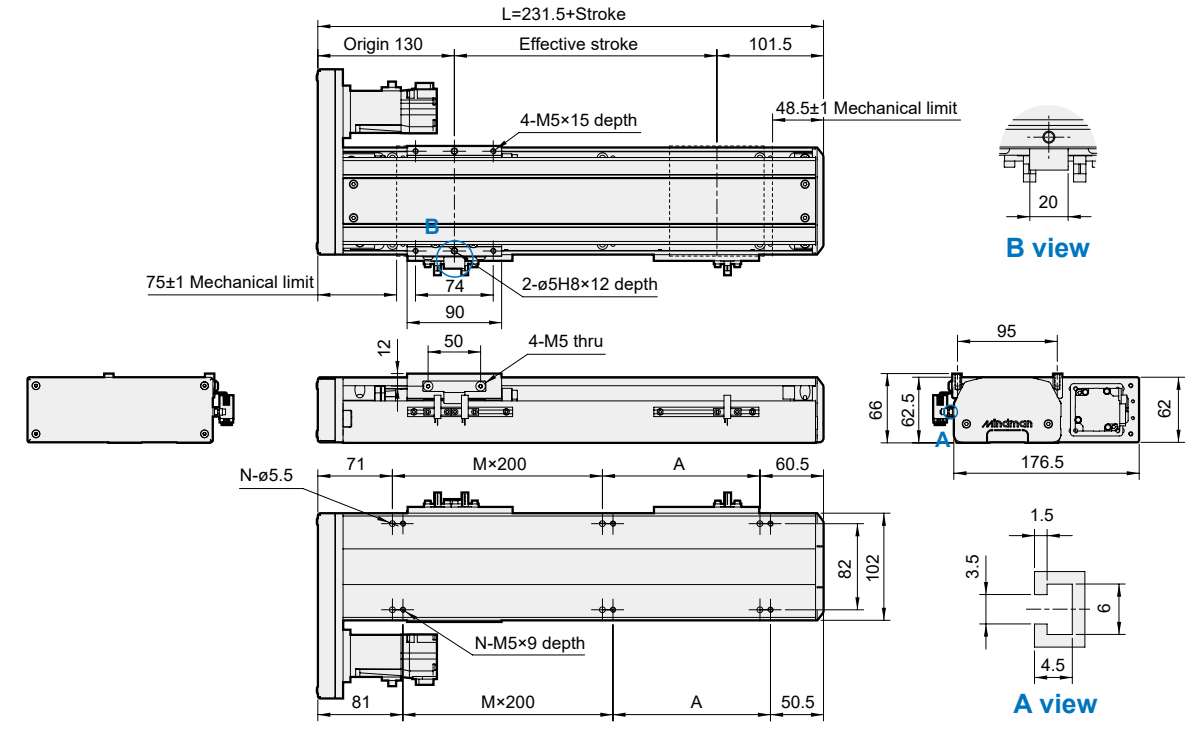
METS2-10 Dimensions

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

BL
Motor on left side



BR
Motor on right side



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	331.5	381.5	431.5	481.5	531.5	581.5	631.5	681.5	731.5	781.5	831.5	881.5	931.5	981.5	1031.5	1081.5	1131.5	1181.5	1231.5
A	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
Weight (kg)	4.39	4.76	5.13	5.50	5.88	6.25	6.62	6.99	7.36	7.74	8.11	8.48	8.85	9.22	9.60	9.97	10.34	10.71	11.08