METS2-14 series

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

mindman

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



Use environment	Standard
Actuation type	Ball screw
Servo motor	200W / 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		METS2-14		
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 (mm)		ø10		
Slot-type photomicro sensor		RLT		
AC servo motor (W)		200		
Rated load	Horizontal (kg)	95	75	35
	Vertical (kg)	27	18	6
Max. thrust (N)		683	341	174
AC servo motor (W)		400		
Rated load	Horizontal (kg)	110	88	40
	Vertical (kg)	33	22	8
Max. thrust (N)		1388	694	347

*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 – 14 – L05 – 100 – BC – M40 B

Model: METS2

Size: 14

Ball screw lead

L05	5 mm
L10	10 mm
L20	20 mm

Stroke: 100~1000 mm

Motor position

M	Built-in
BC	Direct connection
BM	Lower side
BR	Right side
BL	Left side

Flange (For motor installation)

Applicable motor brand (*1)		Dimensions	
M	Mitsubishi	40	200W 400W servo
	Yaskawa		
	Delta		
P	Panasonic	20	200W
		40	400W

Brakes (*2)

–	No brake
B	With brake

*1. Motor not included. Please refer to the "Motor Selection Table" for details.
*2. Determination is required only when "Built-in" type is chosen.

Slot-type photomicro sensor set

RZ – ET1 – 14 – N

Sensor set: RZ

Size: ET1

Sensor type: 14

N	NPN
P	PNP

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

Accessory kits

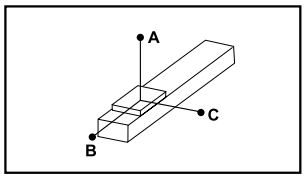
AK – ET1 – 14

Accessory kits: AK

Size: ET1

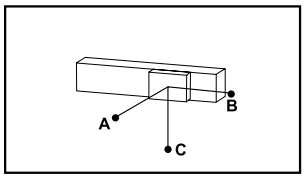
* With light baffle and bolt.

Allowable overhang



Unit: mm

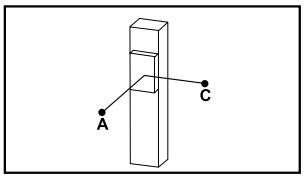
Horizontal installation		A	B	C
AC servo motor 200W				
Lead 5	60kg	2300	250	240
	80kg	1600	180	170
	95kg	1150	145	140
Lead 10	30kg	2000	500	450
	50kg	1400	280	250
	75kg	1000	170	160
Lead 20	10kg	2300	1200	1000
	20kg	1400	600	500
	35kg	1000	330	290



Unit: mm

Wall installation		A	B	C
AC servo motor 200W				
Lead 5	60kg	200	110	1395
	80kg	130	55	1115
	95kg	85	25	895
Lead 10	30kg	415	330	1275
	50kg	235	155	930
	75kg	130	55	700
Lead 20	10kg	995	1200	1700
	20kg	500	555	985
	35kg	270	230	600

* When the motor power is 400W, the max. payload is 110 kg (lead 5), 88 kg (lead 10) , 40 kg (lead 20) , and the load torque distance remains unchanged.

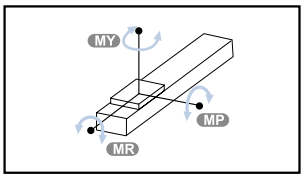


Unit: mm

Vertical installation		A	C
AC servo motor 200W			
Lead 5	20kg	755	610
	25kg	605	485
	27kg	500	480
Lead 10	10kg	1350	1100
	15kg	900	725
	18kg	675	540
Lead 20	6kg	1695	1360
	—	—	—
	—	—	—
AC servo motor 400W			
Lead 20	4kg	2400	2015
	6kg	1700	1365
	8kg	1300	1055

* When the motor power is 400W, the max. payload is 33 kg (lead 5) , 22kg (lead 10) , and the load torque distance remains unchanged.

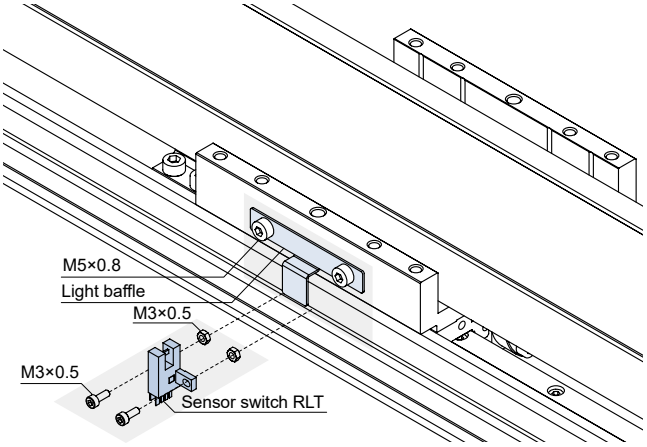
Static loading moment



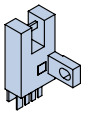
Unit: N.m

Horizontal	
AC servo motor 200W	
MY	262
MP	262
MR	261

Slot-type photomicro sensor mounting

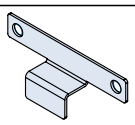


Sensor set

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

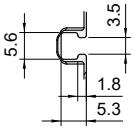
* With cable 2m.

Accessory kits

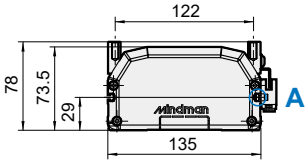
	 M5
Light baffle (×1)	Bolt (×2)

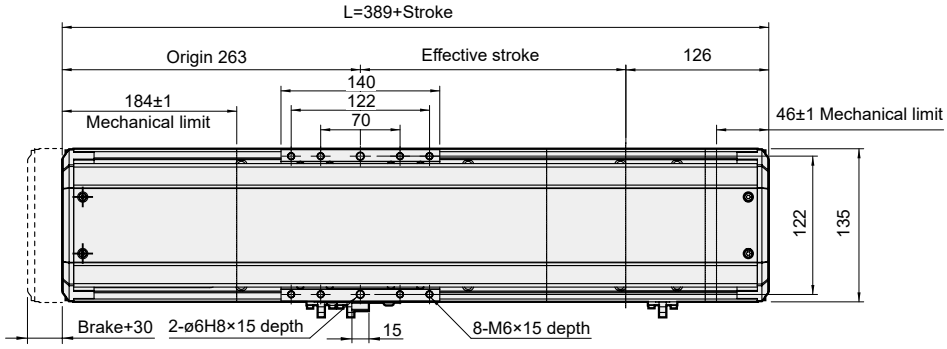
Dimensions

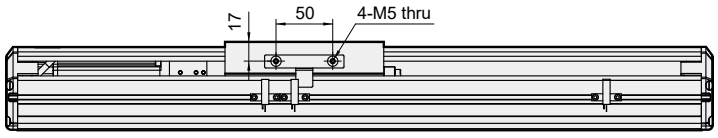
M
Motor built-in

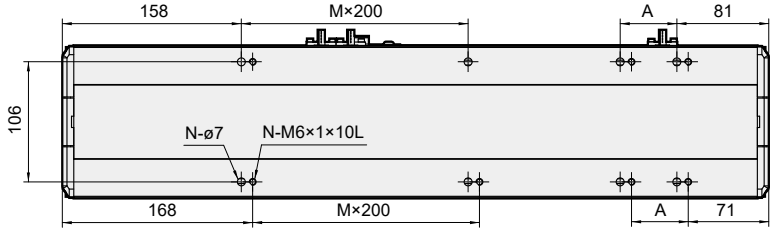


A view









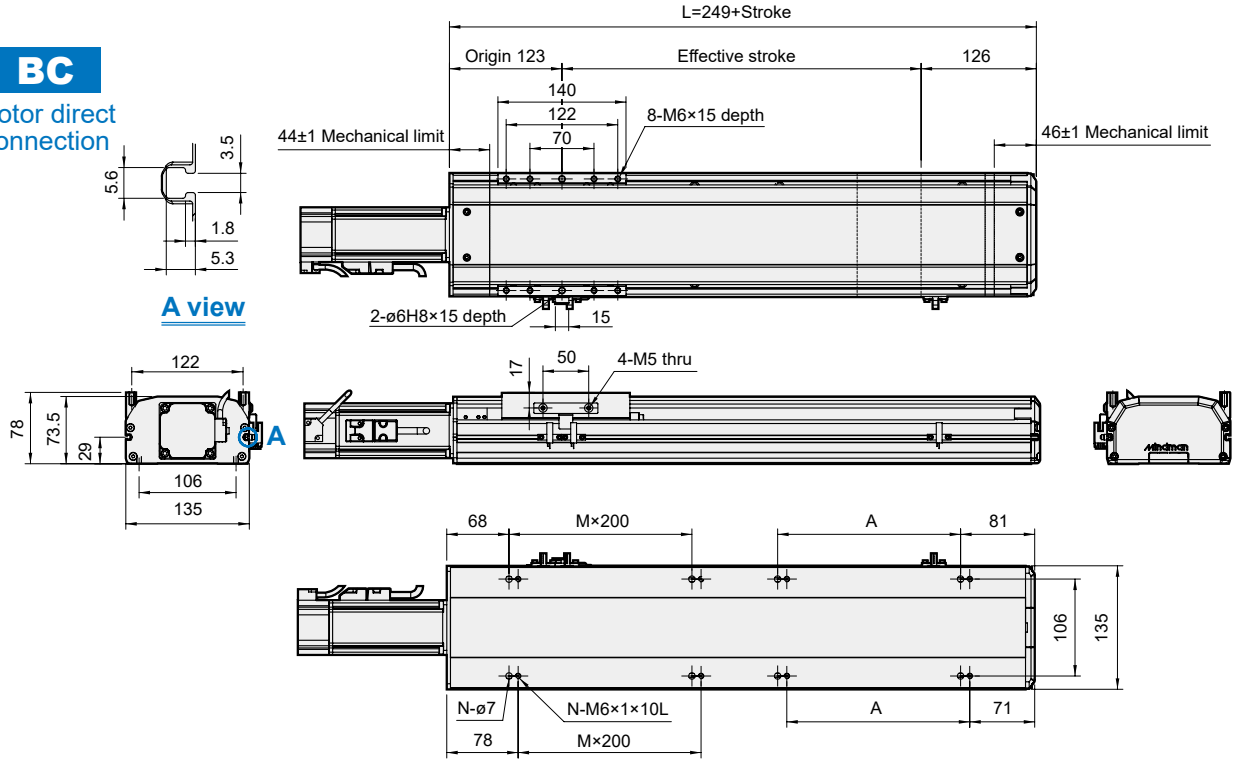
Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319	1369	1419
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
Weight (kg)	6.92	7.40	7.87	8.35	8.82	9.30	9.78	10.25	10.73	11.20	11.68	12.15	12.63	13.10	13.58	14.05	14.53	15.01	15.48

METS2-14 Dimensions

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

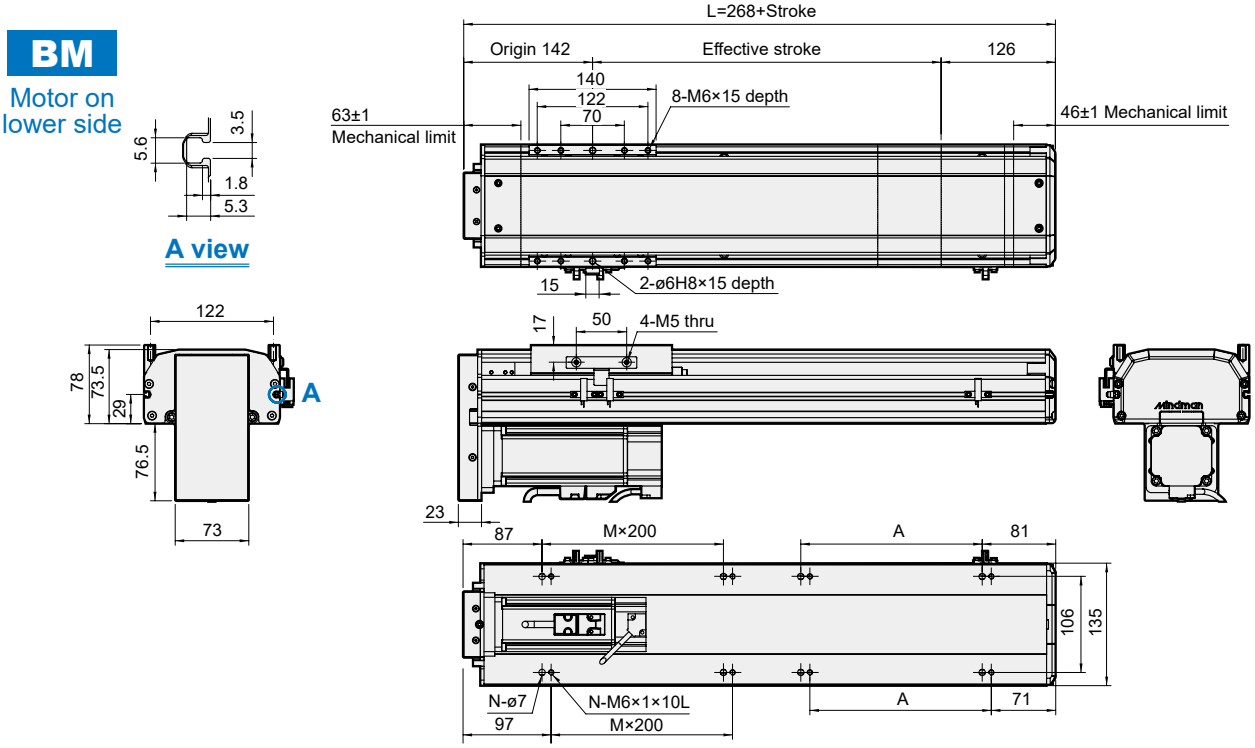
BC

Motor direct connection



BM

Motor on lower side

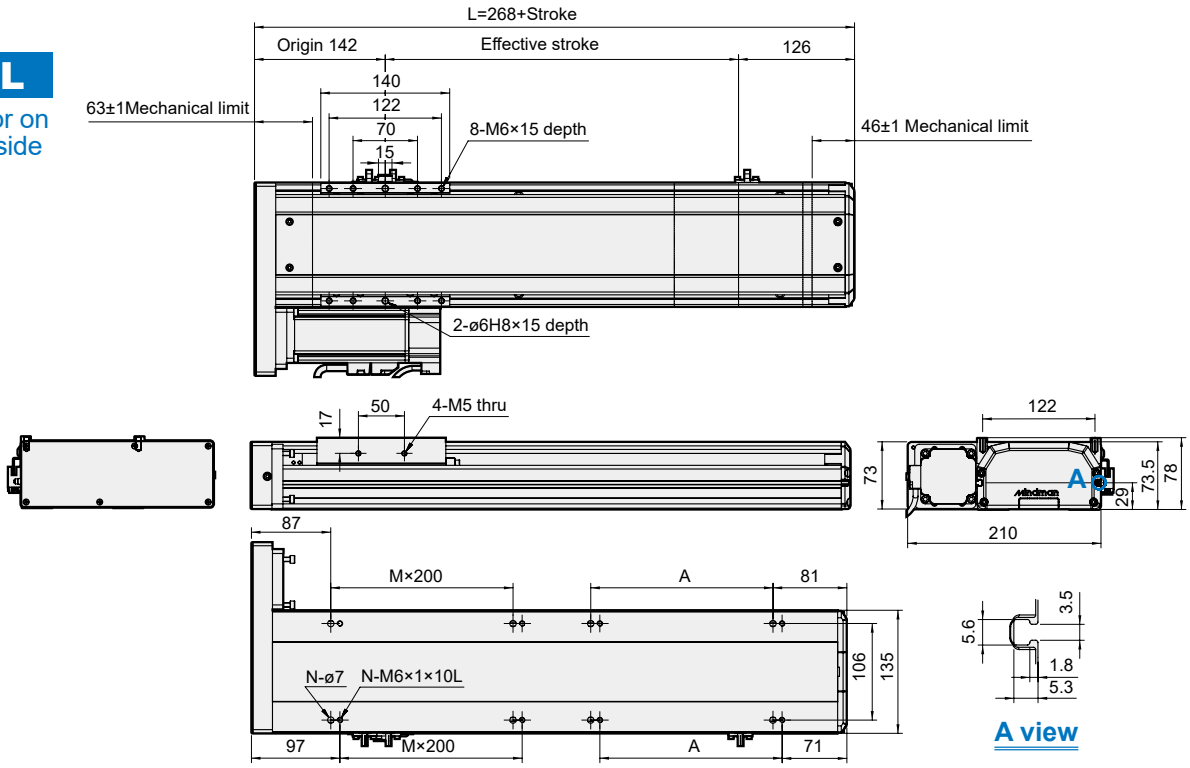


Stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	BC	349	399	449	499	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249
	BM	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
A		200	50	100	150	200	50	100	150	200	50	100	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	6.24	6.71	7.19	7.66	8.14	8.62	9.09	9.57	10.04	10.52	10.99	11.47	11.94	12.42	12.90	13.37	13.85	14.32	14.80
	BM	6.75	7.22	7.70	8.18	8.65	9.13	9.60	10.08	10.55	11.03	11.50	11.98	12.46	12.93	13.41	13.88	14.36	14.83	15.31

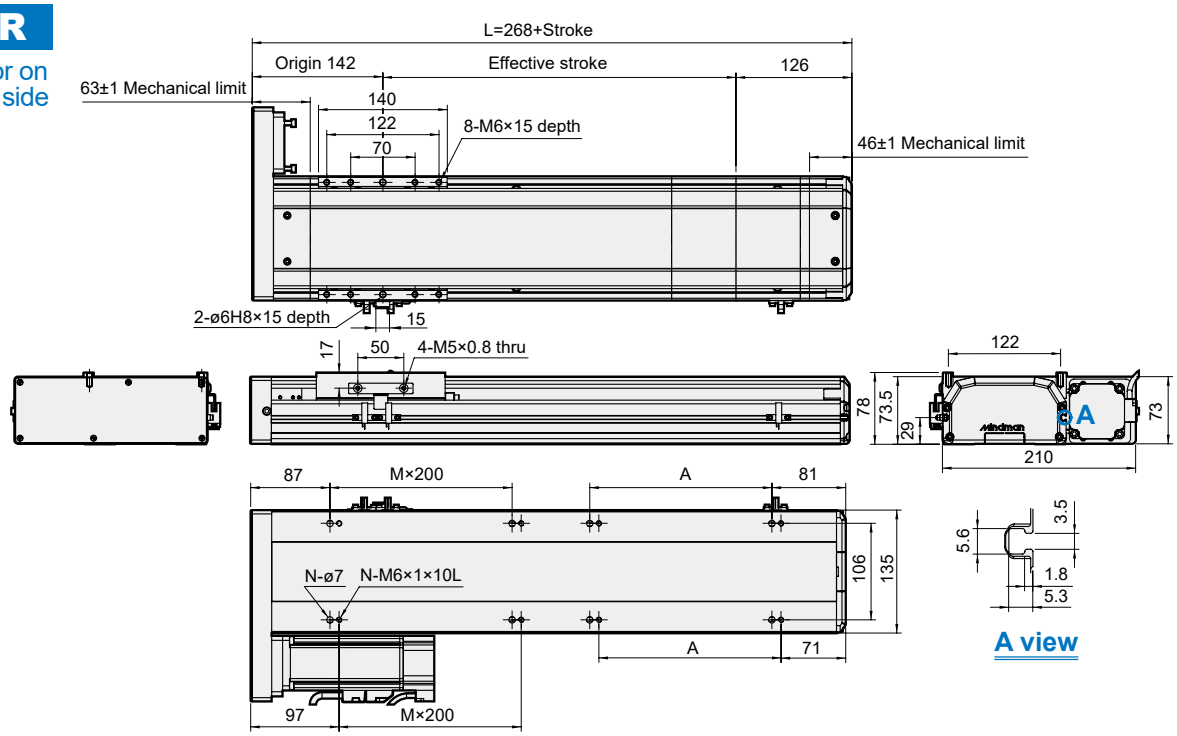
METS2-14 Dimensions

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	BL	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
	BR	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
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)		7.03	7.50	7.98	8.45	8.93	9.40	9.88	10.36	10.83	11.31	11.78	12.26	12.73	13.21	13.68	14.16	14.64	15.11	15.59