

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator Series



Size (in mm)	Repeatability (in mm)	Ball Screw Lead (in mm)	Max. Speed (in mm/s)	Max.Payload (in Kg)		Stroke (in mm)
				Horizontal	Vertical	
44	±0.01	2	100	25	8	50 - 500
		6	300	20	5	
		12	600	12	2	
54		2	100	30	10	50 - 600
		5	250	30	10	
		10	500	15	5	
		20	1000	10	2.5	
82		5	250	50	15	50 - 800
		10	500	30	8	
		20	1000	18	3	
120		5	250	110	33	50 - 800
		10	500	88	22	
	20	1000	40	10		
	32	1600	30	8		

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 44mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance

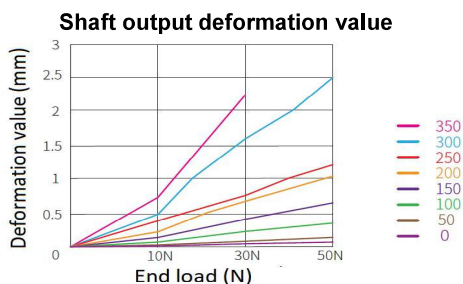


Technical Specifications

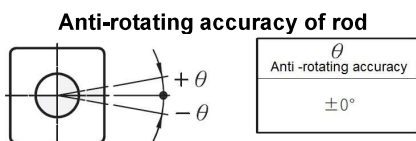
Repeatability (mm)		±0.01		
Motor Power (AC Servo in W)		100		
Ball screw lead (mm)		2	6	12
Maximum speed (mm/s)*		100	300	600
Maximum payload	Horizontal (Kg)**	25	20	12
	Vertical (Kg)	8	5	2
Rated thrust (N)		424	141	71
Stroke (mm)		50-500mm		
Ball screw Ø (mm)		C7 Ø 10		
Coupling (mm)		7x8		
Home sensor	Outside	CS-6T (NPN)		

*Acceleration and deceleration value is set 0.2sec.

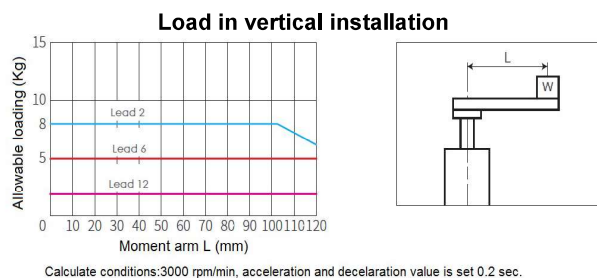
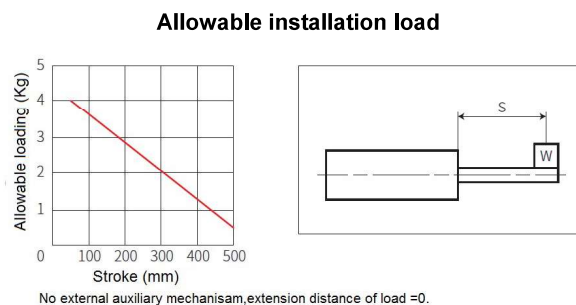
**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.



This form is only reference values



Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the anti-rotating guide, abnormal responses of the auto switch, pay in the internal guide or an increase in the sliding resistance.

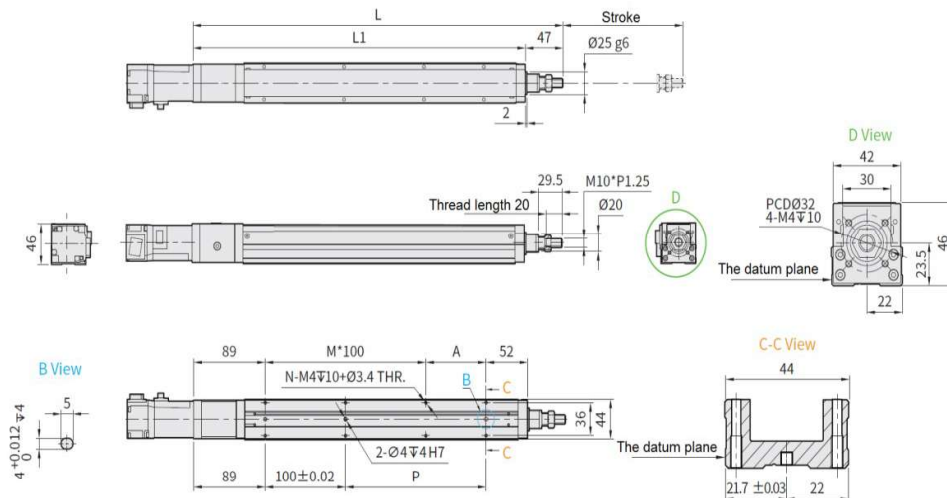


Linear Electric Actuator

Series AERS

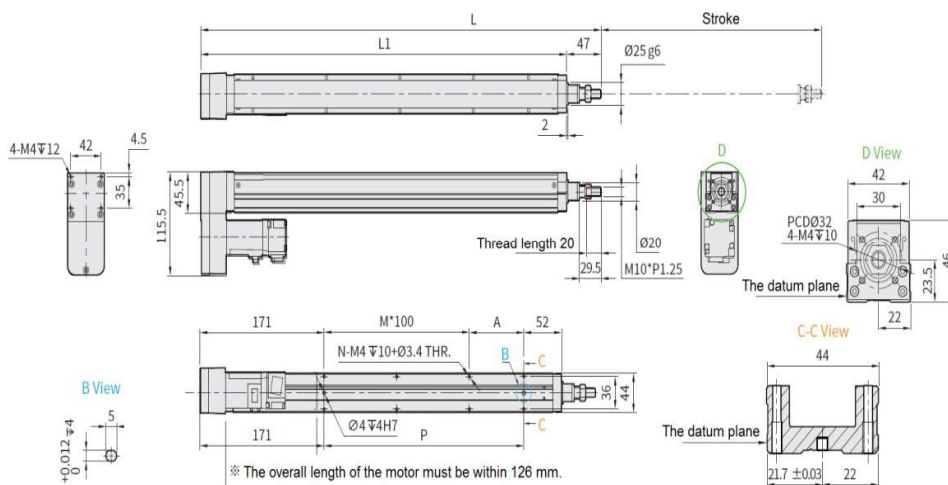
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500
L	313	363	413	463	513	563	613	663	713	763
L1	266	316	366	416	466	516	566	616	666	716
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
Weight(Kg)	0.70	0.87	1.04	1.22	1.40	1.58	1.76	1.94	2.12	2.30

Motor Bottom Side - B



Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3	4	4
N	4	4	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375	425	475
Weight(Kg)	0.70	0.88	1.06	1.24	1.42	1.60	1.78	1.96	2.14	2.32

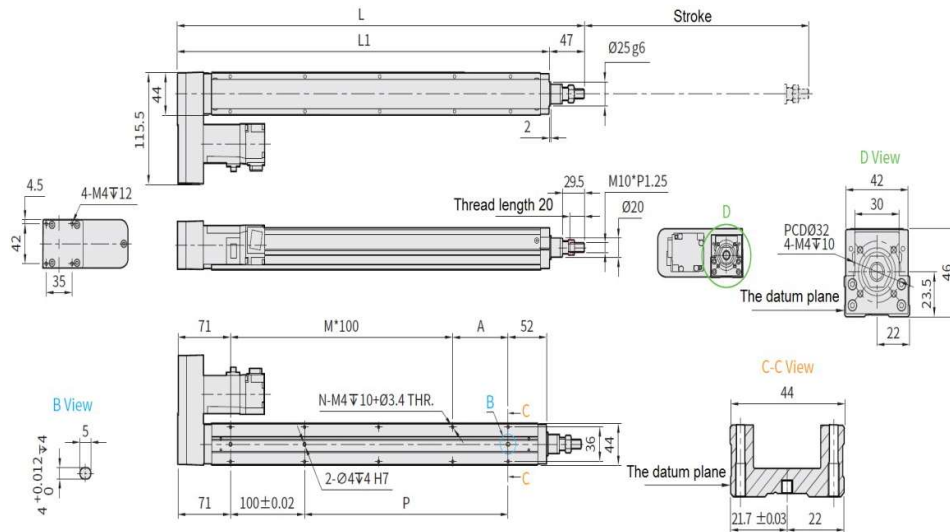
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

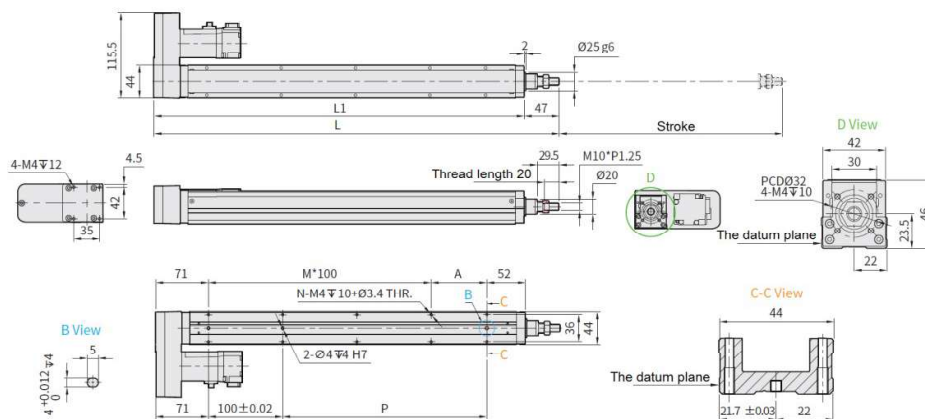
Cat :

Motor Left Side - L



Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
Weight(Kg)	0.70	0.88	1.06	1.24	1.42	1.60	1.78	1.96	2.14	2.32

Motor Right Side - R



Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
Weight(Kg)	0.70	0.88	1.06	1.24	1.42	1.60	1.78	1.96	2.14	2.32

Linear Electric Actuator

Series AERS

Cat :

How to order

AERS044

Lead	
02	2mm
06	6mm
12	12mm

Stroke	
0050-0500mm	

Motor Position	
D	Direct
L	Left Side
R	Right Side
B	Bottom Side

Motor Specification	
AC Servo	
D	Delta
Y	Yaskawa
M	Mitsubishi
P	Panasonic
V	INVT
T	Others

Motor Power	
AC Servo	
B	100W

Brake	
	Without Brake
B	With Brake

Encoder Type	
	Incremental
A	Absolute

Communication Type	
	Basic Type
C0	Modbus
C1	CAN Open
C2	Ether CAT
C3	PROFINET
C4	PROFIBUS
C5	Ethernet/IP
C6	Other Protocol - 1
C7	Other Protocol - 2
C8	Own Protocol -1*
C9	Own Protocol -2*

Motor & Encoder Cable	
1	1m
3	3m
5	5m
T	10m

I/O Cable	
N	Without Cable (Stand.)
1	1m
A	1.5m
2	2m

Note : * Based on Motor make

Customization Order no	
XXXX	Special Requirements

Example:1

Order no. for Rod type ball screw electric actuator 44mm size, 6mm Lead, 200mm stroke with delta 100W servo motor mounted at the motor Direct, With 3m Motor & Encoder cable.

AERS044060200D-DB-3N

Example:2

Order no. for Rod type ball screw electric actuator 44mm size, 6mm Lead, 200mm stroke without delta 100W servo motor mounted at the motor Direct.

AERS044060200D-DB

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 54mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance



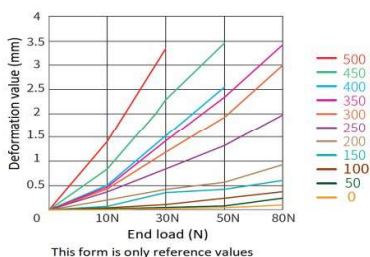
Technical Specifications

Repeatability (mm)		±0.01			
Motor Power (AC Servo in W)		100			
Ball screw lead (mm)		2	5	10	20
Maximum speed (mm/s)*		100	250	500	1000
Maximum payload	Horizontal (Kg)**	30	30	15	10
	Vertical (Kg)	10	10	5	2.5
Rated thrust (N)		854	341	170	85
Stroke		50-600mm			
Ball screw Ø (mm)		C7 Ø 12			
Coupling (mm)		7x8			
Home sensor	Outside	CS-6T (NPN)			

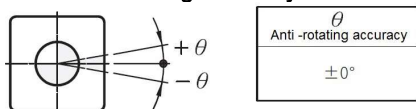
*Acceleration and deceleration value is set 0.2sec.

**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Shaft output deformation value

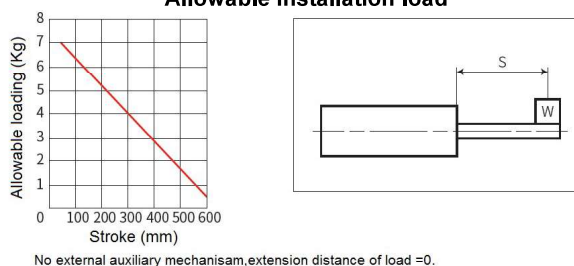


Anti-rotating accuracy of rod



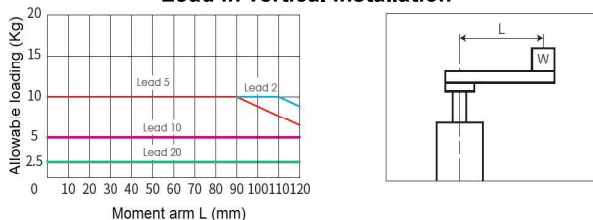
Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the anti-rotating guide, abnormal responses of the auto switch, pay in the internal guide or an increase in the sliding resistance.

Allowable installation load



No external auxiliary mechanism, extension distance of load =0.

Load in vertical installation



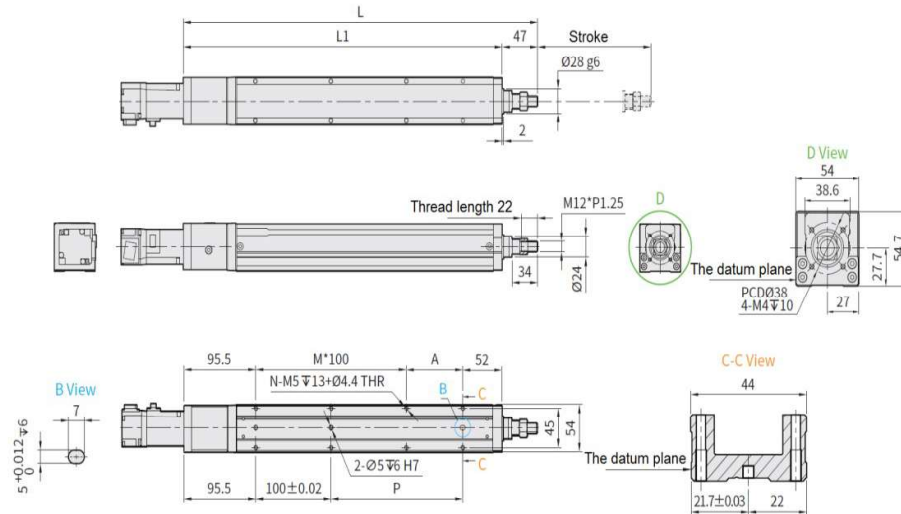
Calculate conditions:3000 rpm/min, acceleration and deceleration value is set 0.2 sec.

Linear Electric Actuator

Series AERS

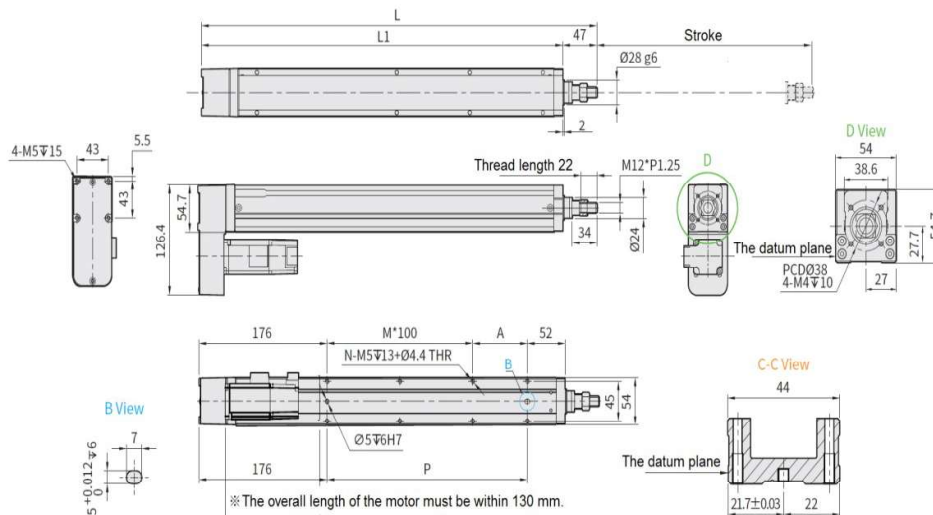
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	319.5	369.5	419.5	469.5	519.5	569.5	619.5	669.5	719.5	769.5	819.5	869.5
L1	272.5	322.5	372.5	422.5	472.5	522.5	572.5	622.5	672.5	722.5	772.5	822.5
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
Weight(Kg)	2.08	2.22	2.35	2.54	2.82	2.93	2.95	3.18	3.29	3.38	3.58	3.71

Motor Bottom Side - B



Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3	4	4	5	5
N	4	4	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475	525	575
Weight(Kg)	2.00	2.12	2.35	2.46	2.74	2.85	2.90	3.10	3.21	3.30	3.50	3.63

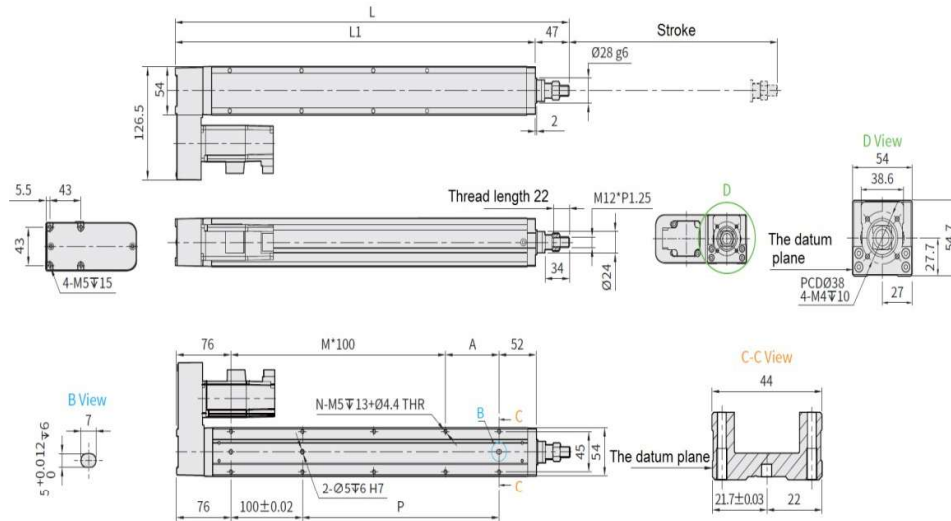
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

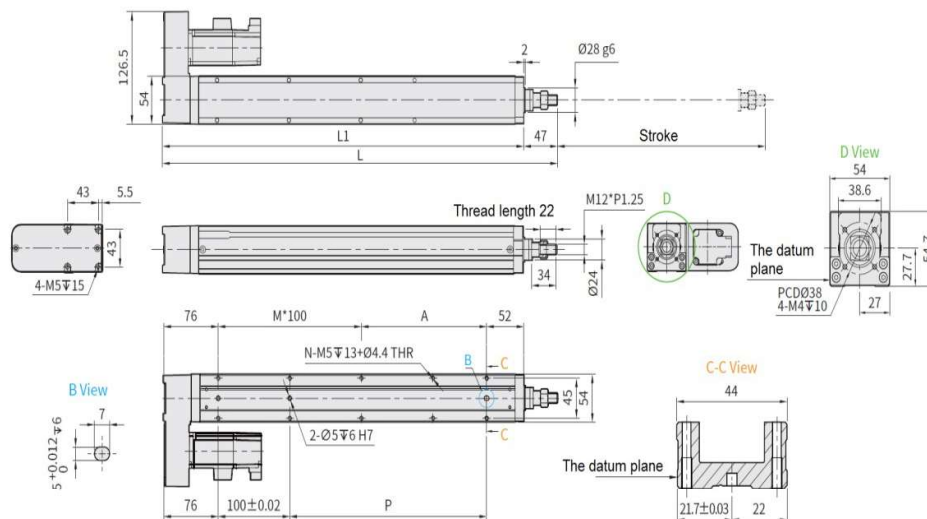
Cat :

Motor Left Side - L



Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
Weight(Kg)	2.00	2.12	2.35	2.46	2.74	2.85	2.90	3.10	3.21	3.30	3.50	3.63

Motor Right Side - R



Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
Weight(Kg)	2.00	2.12	2.35	2.46	2.74	2.85	2.90	3.10	3.21	3.30	3.50	3.63

Linear Electric Actuator

Series AERS

Cat :

How to order

AERS054

Lead	
02	2mm
05	5mm
10	10mm
20	20mm

Stroke	
0050-0600mm	

Motor Position	
D	Direct
L	Left Side
R	Right Side
B	Bottom Side

Motor Specification	
AC Servo	
D	Delta
Y	Yaskawa
M	Mitsubishi
P	Panasonic
V	INVT
T	Others

Motor Power	
AC Servo	
B	100W

Brake	
	Without Brake
B	With Brake

Encoder Type	
	Incremental
A	Absolute

Communication Type	
	Basic Type
C0	Modbus
C1	CAN Open
C2	Ether CAT
C3	PROFINET
C4	PROFIBUS
C5	Ethernet/IP
C6	Other Protocol - 1
C7	Other Protocol - 2
C8	Own Protocol -1*
C9	Own Protocol -2*

Motor & Encoder Cable	
1	1m
3	3m
5	5m
T	10m

I/O Cable	
N	Without Cable (Stand.)
1	1m
A	1.5m
2	2m

Note : * Based on Motor make

Customization Order no	
XXXX	Special Requirements

Example:1

Order no. for Rod type ball screw electric actuator 54mm size, 5mm Lead, 150mm stroke with delta 100W servo motor mounted at the motor Direct, With 3m Motor & Encoder cable.

AERS054050150D-DB-3N

Example:2

Order no. for Rod type ball screw electric actuator 54mm size, 5mm Lead, 150mm stroke without delta 100W servo motor mounted at the motor Direct.

AERS054050150D-DB

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 82mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance



Technical Specifications

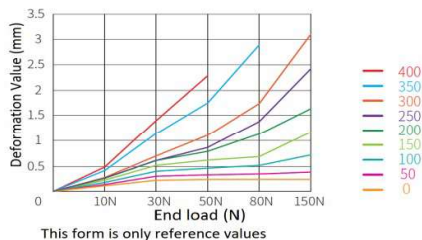
Repeatability (mm)		±0.01					
Motor Power (AC Servo in W)		200	400	200	400	200	400
Ball screw lead (mm)		5		10		20	
Maximum speed (mm/s)*		250		500		1000	
Maximum payload	Horizontal (Kg)**	50		30		18	
	Vertical (Kg)	15		8		3	
Rated thrust (N)		683	1388	341	694	174	347
Stroke (mm) @		50-800mm					
Ball screw Ø (mm)		C7 Ø 16					
Coupling (mm)		10x14					
Home sensor	Outside	CS-6T (NPN)					

*Acceleration and deceleration value is set 0.2sec.

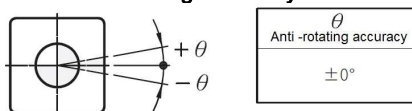
**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

@ When the stroke is over 750mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances. Please refer to P2,18 for details.

Shaft output deformation value

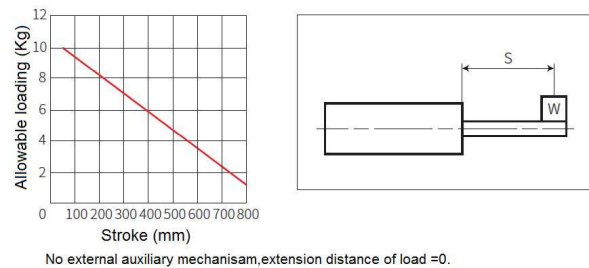


Anti-rotating accuracy of rod

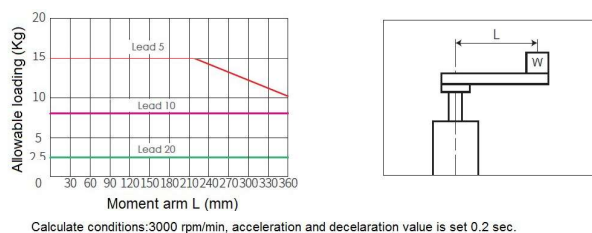


Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the anti-rotating guide, abnormal responses of the auto switch, pay in the internal guide or an increase in the sliding resistance.

Allowable installation load



Load in vertical installation

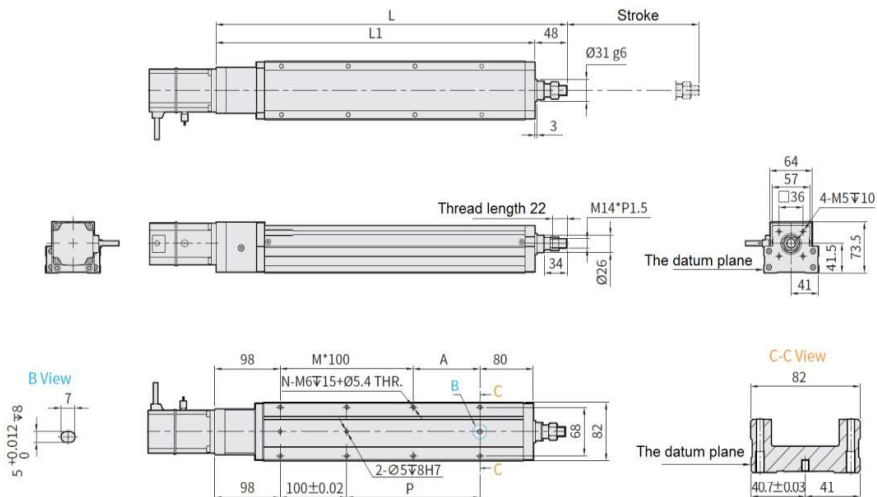


Linear Electric Actuator

Series AERS

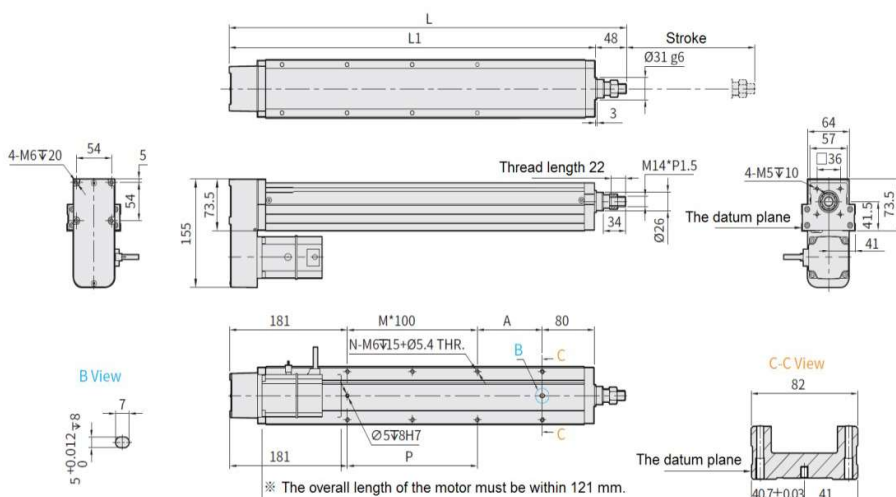
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	376	426	476	526	576	626	676	726	776	826	876	926	976	1026	1076	1126
L1	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Weight(Kg)	4.06	4.44	4.85	5.15	5.50	5.83	6.15	6.50	6.79	7.12	7.56	7.86	8.27	8.56	8.80	9.11

Motor Bottom Side - B



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
N	4	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Weight(Kg)	4.16	4.54	4.95	5.30	5.60	5.93	6.25	6.60	6.89	7.22	7.66	7.96	8.37	8.66	8.90	9.21

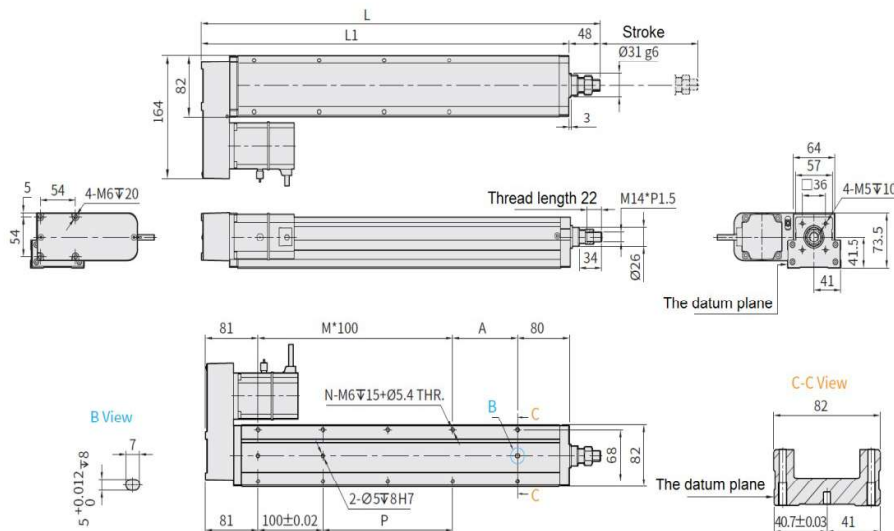
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

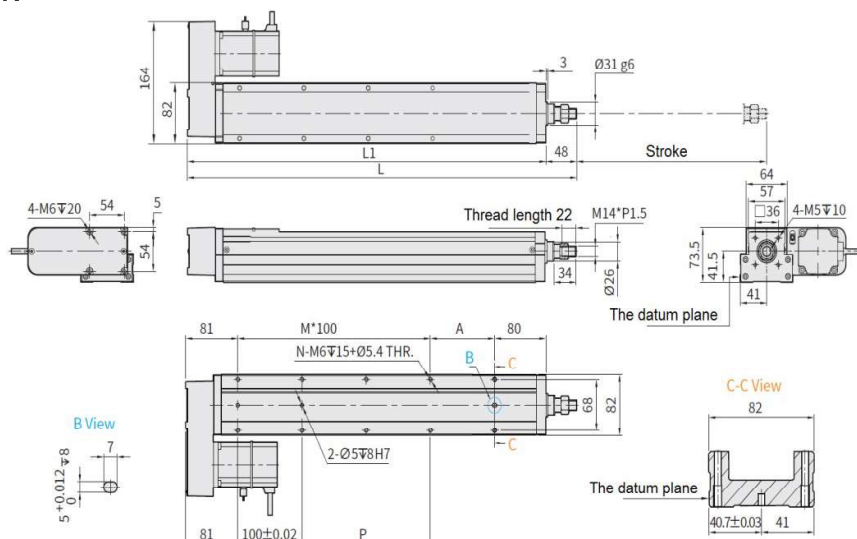
Cat :

Motor Left Side - L



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Weight(Kg)	4.16	4.54	4.96	5.30	5.60	5.93	6.25	6.60	6.89	7.22	7.66	7.96	8.37	8.66	8.90	9.21

Motor Right Side - R



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	359	409	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109
L1	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Weight(Kg)	4.16	4.54	4.95	5.3	5.6	5.93	6.25	6.6	6.89	7.22	7.66	7.96	8.37	8.66	8.9	9.21

Linear Electric Actuator

Series AERS

Cat :

How to order

AERS082

Lead	
05	5mm
10	10mm
20	20mm

Stroke	
0050-0800mm	

Motor Position	
D	Direct
L	Left Side
R	Right Side
B	Bottom Side

Motor Specification	
AC Servo	
D	Delta
Y	Yaskawa
M	Mitsubishi
P	Panasonic
V	INVT
T	Others

Motor Power	
AC Servo	
C	200W
D	400W

Brake	
	Without Brake
B	With Brake

Encoder Type	
	Incremental
A	Absolute

Communication Type	
	Basic Type
C0	Modbus
C1	CAN Open
C2	Ether CAT
C3	PROFINET
C4	PROFIBUS
C5	Ethernet/IP
C6	Other Protocol - 1
C7	Other Protocol - 2
C8	Own Protocol -1*
C9	Own Protocol -2*

Motor & Encoder Cable	
1	1m
3	3m
5	5m
T	10m

I/O Cable	
N	Without Cable (Stand.)
1	1m
A	1.5m
2	2m

Note : * Based on Motor make

Customization Order no	
XXXX	Special Requirements

Example:1

Order no. for Rod type ball screw electric actuator 82mm size, 5mm Lead, 200mm stroke with delta 200W servo motor mounted at the motor Direct, With 3m Motor & Encoder cable.

AERS082050200D-DC-3N

Example:2

Order no. for Rod type ball screw electric actuator 82mm size, 5mm Lead, 200mm stroke without delta 200W servo motor mounted at the motor Direct.

AERS082050200D-DC

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 120mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance



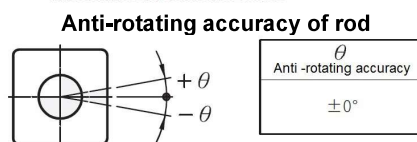
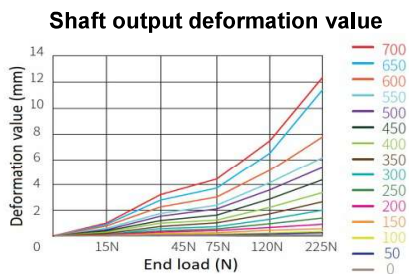
Technical Specifications

Repeatability (mm)		±0.01			
Motor Power (AC Servo in W)		400			
Ball screw lead (mm)		5	10	20	32
Maximum speed (mm/s)*		250	500	1000	1600
Maximum payload	Horizontal (Kg)**	110	88	40	30
	Vertical (Kg)	33	22	10	8
Rated thrust (N)		1388	694	347	218
Stroke (mm) @		50-800mm			
Ball screw Ø (mm)		C7 Ø 16			
Coupling (mm)		10x14			
Home sensor	Outside	CS-6T (NPN)			

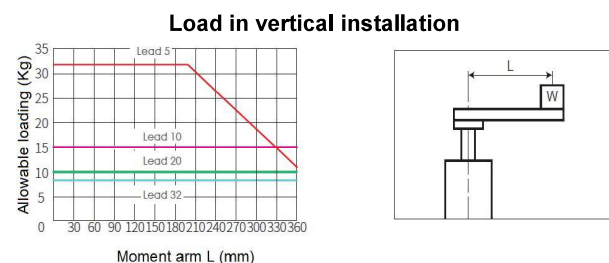
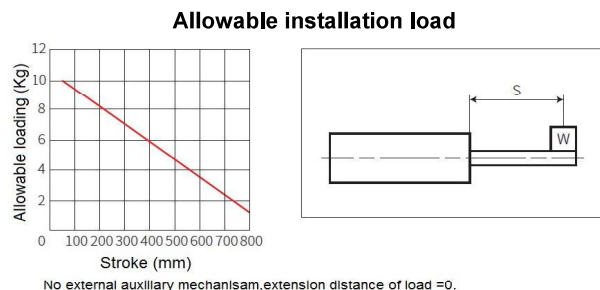
*Acceleration and deceleration value is set 0.2sec.

**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

@ When the stroke is over 750mm, the run-out of the ball screw will occur. We recommend to low down the working speed under this circumstances. Please refer to P2.18 for details.



Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the anti-rotating guide, abnormal responses of the auto switch, pay in the internal guide or an increase in the sliding resistance.

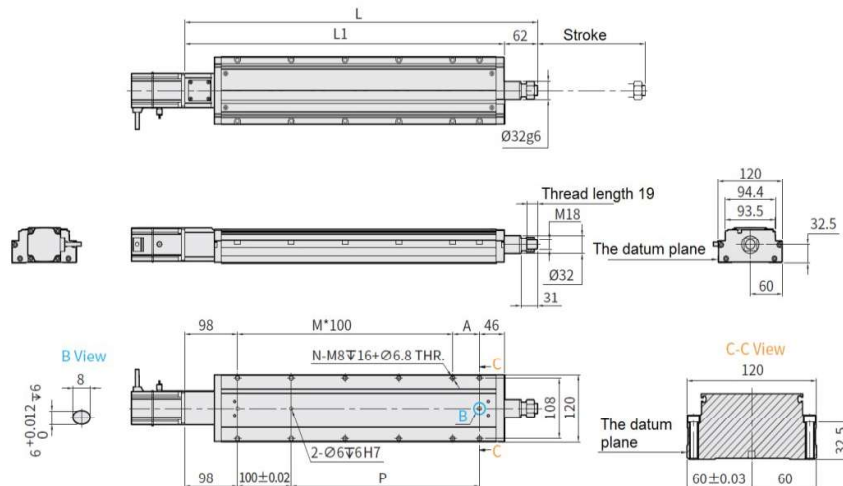


Linear Electric Actuator

Series AERS

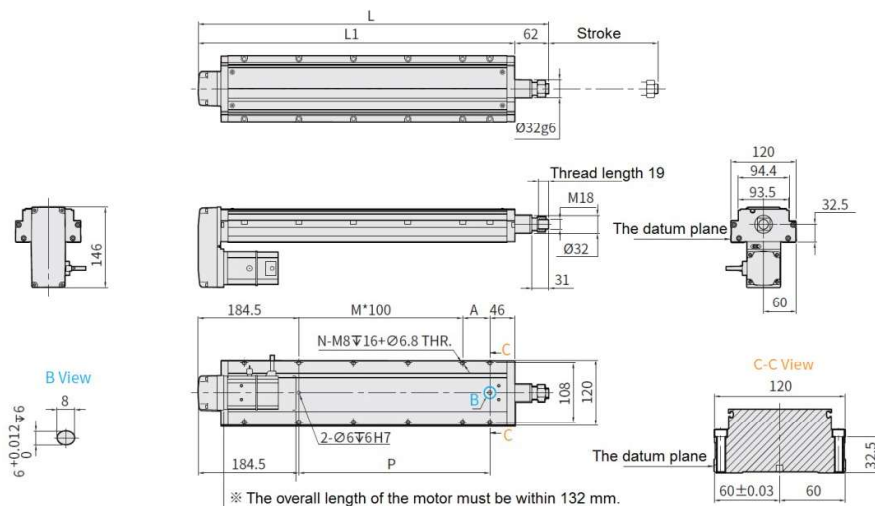
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156
L1	344	394	444	494	544	594	644	694	744	794	844	894	944	994	1044	1094
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight(Kg)	4.86	5.36	5.86	6.36	6.86	7.36	7.86	8.36	8.86	9.36	9.86	10.36	10.86	11.36	11.86	12.36

Motor Bottom Side - B



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	392.5	442.5	492.5	542.5	592.5	642.5	692.5	742.5	792.5	842.5	892.5	942.5	992.5	1042.5	1092.5	1142.5
L1	330.5	380.5	430.5	480.5	530.5	580.5	630.5	680.5	730.5	780.5	830.5	880.5	930.5	980.5	1030.5	1080.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	4	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight(Kg)	5.32	5.80	6.29	6.77	7.26	7.74	8.23	8.71	9.20	9.68	10.17	10.65	11.14	11.62	12.11	12.59

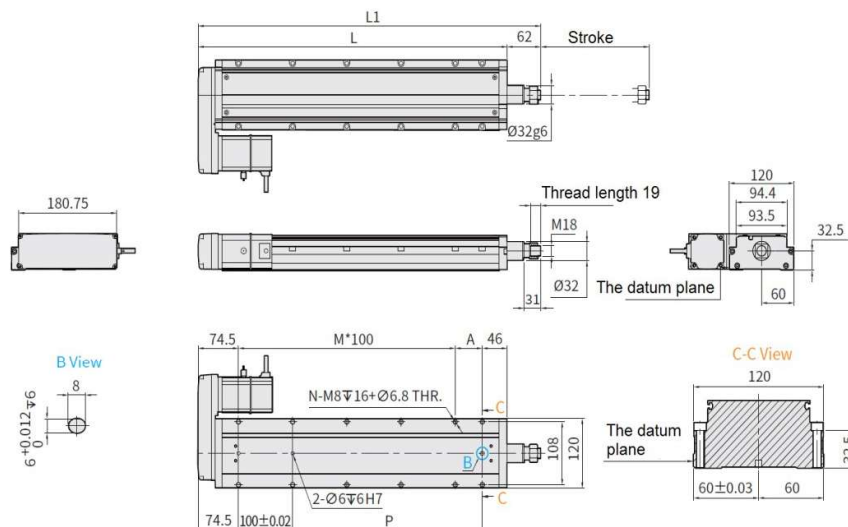
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

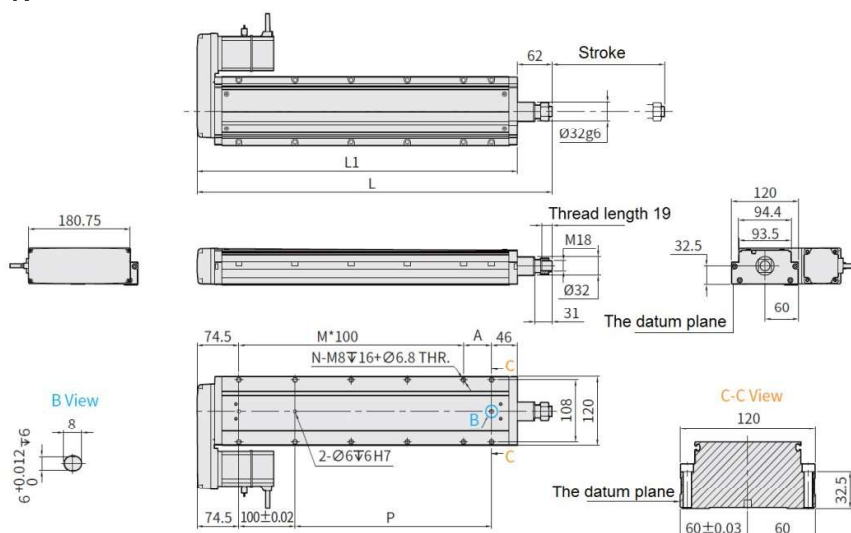
Cat :

Motor Left Side - L



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5	782.5	832.5	882.5	932.5	982.5	1032.5	1082.5	1132.5
L1	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5	1070.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight(Kg)	5.32	5.80	6.29	6.77	7.26	7.74	8.23	8.71	9.20	9.68	10.17	10.65	11.14	11.62	12.11	12.59

Motor Right Side - R



Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	382.5	432.5	482.5	532.5	582.5	632.5	682.5	732.5	782.5	832.5	882.5	932.5	982.5	1032.5	1082.5	1132.5
L1	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5	1070.5
A	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50
M	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
N	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22
P	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Weight(Kg)	5.32	5.80	6.29	6.77	7.26	7.74	8.23	8.71	9.20	9.68	10.17	10.65	11.14	11.62	12.11	12.59

Linear Electric Actuator

Series AERS

Cat :

How to order

AERS120

Lead	
05	5mm
10	10mm
20	20mm
32	32mm

Stroke	
0050-0800mm	

Motor Position	
D	Direct
L	Left Side
R	Right Side
B	Bottom Side

Motor Specification	
AC Servo	
D	Delta
Y	Yaskawa
M	Mitsubishi
P	Panasonic
V	INVT
T	Others

Motor Power	
AC Servo	
D	400W

Brake	
	Without Brake
B	With Brake

Encoder Type	
	Incremental
A	Absolute

Communication Type	
	Basic Type
C0	Modbus
C1	CAN Open
C2	Ether CAT
C3	PROFINET
C4	PROFIBUS
C5	Ethernet/IP
C6	Other Protocol - 1
C7	Other Protocol - 2
C8	Own Protocol -1*
C9	Own Protocol -2*

Motor & Encoder Cable	
1	1m
3	3m
5	5m
T	10m

I/O Cable	
N	Without Cable (Stand.)
1	1m
A	1.5m
2	2m

Note : * Based on Motor make

Customization Order no	
XXXX	Special Requirements

Example:1

Order no. for Rod type ball screw electric actuator 120mm size, 5mm Lead, 500mm stroke with 400W delta servo motor mounted at the motor Inline, With 3m Motor & Encoder cable.

AERS12050500D-DD-3N

Example:2

Order no. for Rod type ball screw electric actuator 120mm size, 5mm Lead, 500mm stroke without 400W delta servo motor mounted at the motor Inline.

AERS12050500D-DD

Linear Electric Actuator

Series AERS

Cat :

Speed – Stroke characteristics

Size (mm)	Motor Output (W)	Ball Screw lead (mm)	Max.Payload (Kg)*		Max Speed** (mm/s)	Stroke (mm) & Max. Speed (mm/s)***														
			Horizontal	Vertical		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
44	100	2	25	8	100	100														
		6	20	8	300	300														
		12	12	2	600	600														
54	100	2	30	10	100	100														
		5	30	10	250	250														
		10	15	5	500	500														
		20	10	2.5	1000	1000														
82	200/400	5	50	10	250	250														225
		10	30	8	500	500														450
		20	18	3	1000	1000														900
120	400	5	110	33	250	250														
		10	88	22	500	500														
		20	40	10	1000	1000														
		32	30	8	1600	1600														

*When the Stroke is over 300mm: the run out of the ball screw will occur.

**The highest Speed is based on the maximum servo motor's rpm (3000).

***Written here is the standard stroke's maximum safe speed. If over this speed, it may cause serious vibration.

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator Series



Size (in mm)	Repeatability (in mm)	Ball screw Lead (in mm)	Max Speed (in mm/s)	Max. Pay load (in kg)		Stroke (in mm)
				Horizontal	Vertical	
44	±0.01	2	≤ 100	≤ 25	≤ 8	50-500
		6	≤ 300	≤ 20	≤ 8	
		12	≤ 600	≤ 12	≤ 3.5	
54		2	≤ 100	≤ 30	≤ 10	50-600
		5	≤ 250	≤ 30	≤ 10	
		10	≤ 500	≤ 15	≤ 5	
	20	≤ 1000	≤ 10	≤ 2.5		

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 44mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance



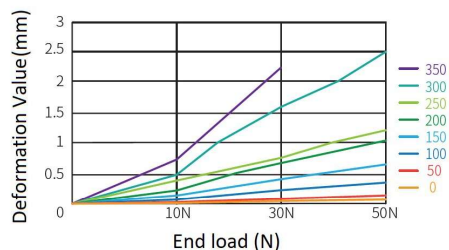
Technical Specifications

Repeatability (mm)		±0.01		
Ball screw lead (mm)		2	6	12
Maximum speed*	Horizontal (mm/s)*	≤ 100	≤ 300	≤ 600
	Vertical (mm/s)	≤ 100	≤ 300	≤ 600
Maximum payload**	Horizontal (Kg)**	≤ 25	≤ 20	≤ 12
	Vertical (Kg)	≤ 8	≤ 8	≤ 3.5
Rated thrust (N)		1094	365	182
Stroke (mm)		50-500mm		
Ball screw Ø (mm)		C7 Ø 10		
Coupling (mm)		7x8		
Home sensor	Outside	CS-6T (NPN)		

*The maximum speed shown here is when software speed setting is 100%.

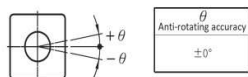
**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Shaft output deformation value



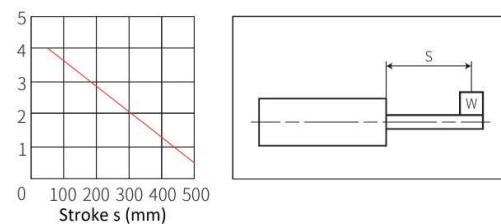
This form is only reference values

Anti-rotating accuracy of rod



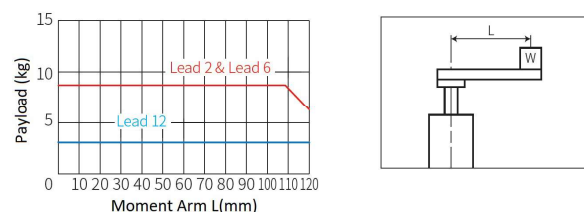
With built-in circular guideway, so the rod shaft of actuator does not rotate.

Allowable installation load



No external auxiliary mechanism, extension distance of load = 0.

Load in vertical installation



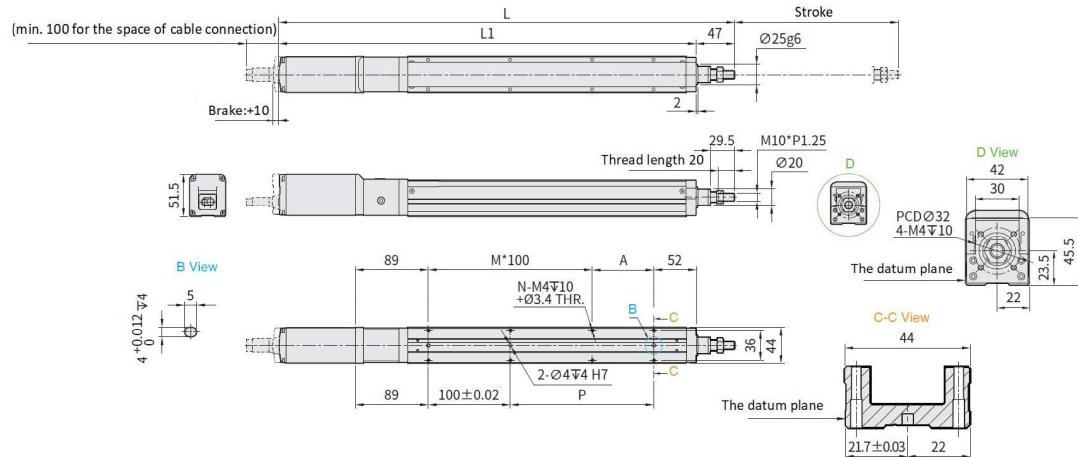
Calculation conditions: 3000rpm/min, acceleration and deceleration: 0.3s

Linear Electric Actuator

Series AERS

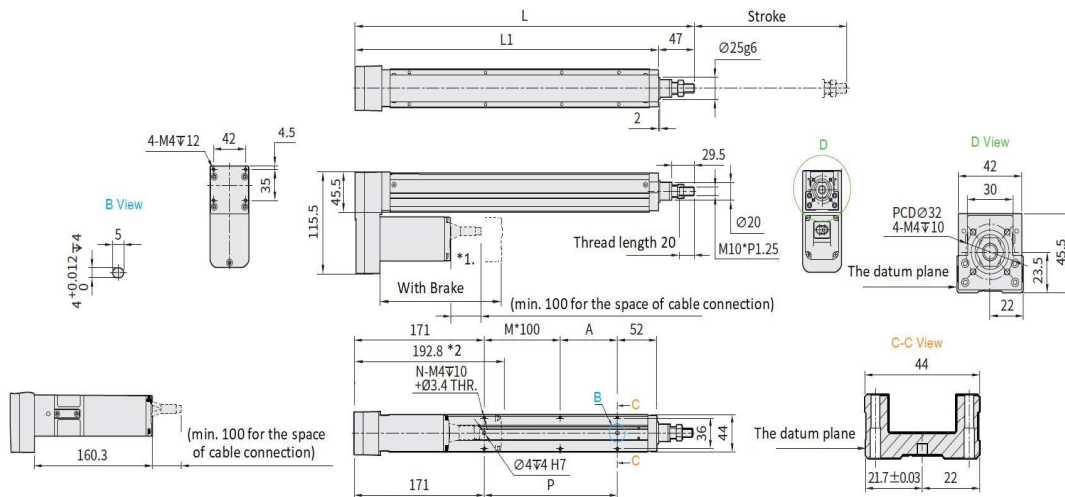
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500
L	406.5	456.5	506.5	556.5	606.5	656.5	706.5	756.5	806.5	856.5
L1	359.5	409.5	459.5	509.5	559.5	609.5	659.5	709.5	759.5	809.5
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
*Weight(kg)	1.33	1.58	1.83	2.08	2.32	2.57	2.82	3.07	3.31	3.56

Motor Bottom Side - B



*1. When the brake is added, dimension and outer side will be changed as above: *2. When choosing brake, please check if the fixed holes match demand.

Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3	4	4
N	4	4	6	6	8	8	10	10	12	12
P	25	75	125	175	225	275	325	375	425	475
*Weight(kg)	1.63	1.88	2.13	2.38	2.62	2.87	3.12	3.37	3.61	3.86

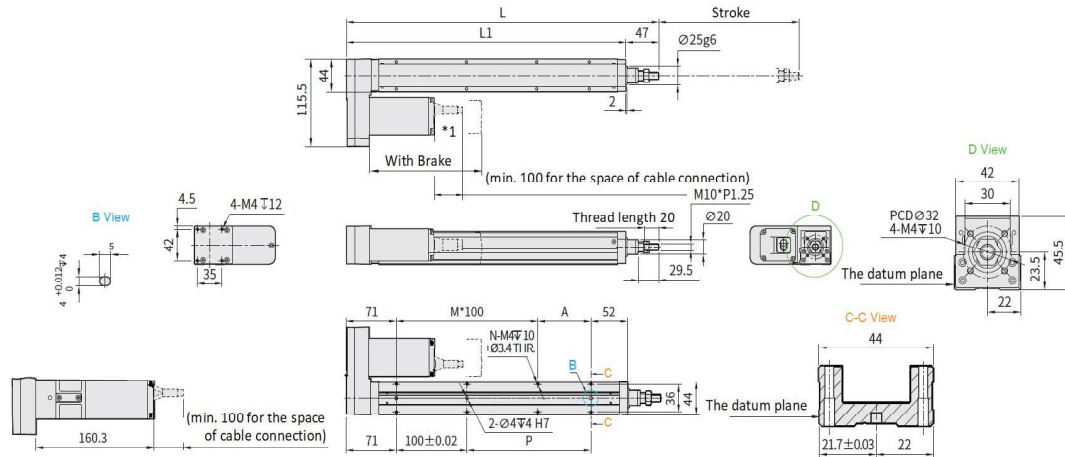
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

Cat :

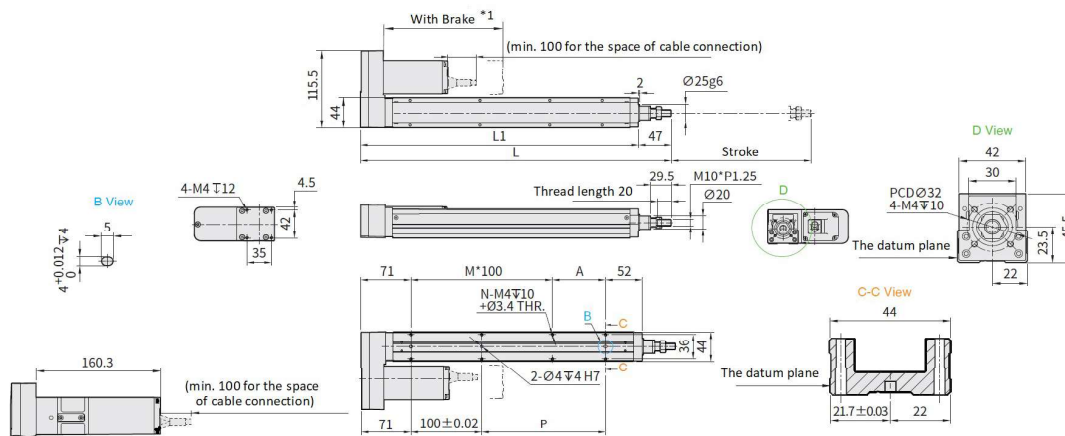
Motor Left Side - L



*1. When the brake is added, dimension and outer side will be changed as below:

Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
*Weight(kg)	1.63	1.88	2.13	2.38	2.62	2.87	3.12	3.37	3.61	3.86

Motor Right Side - R



*1. When the brake is added, dimension and outer side will be changed as below:

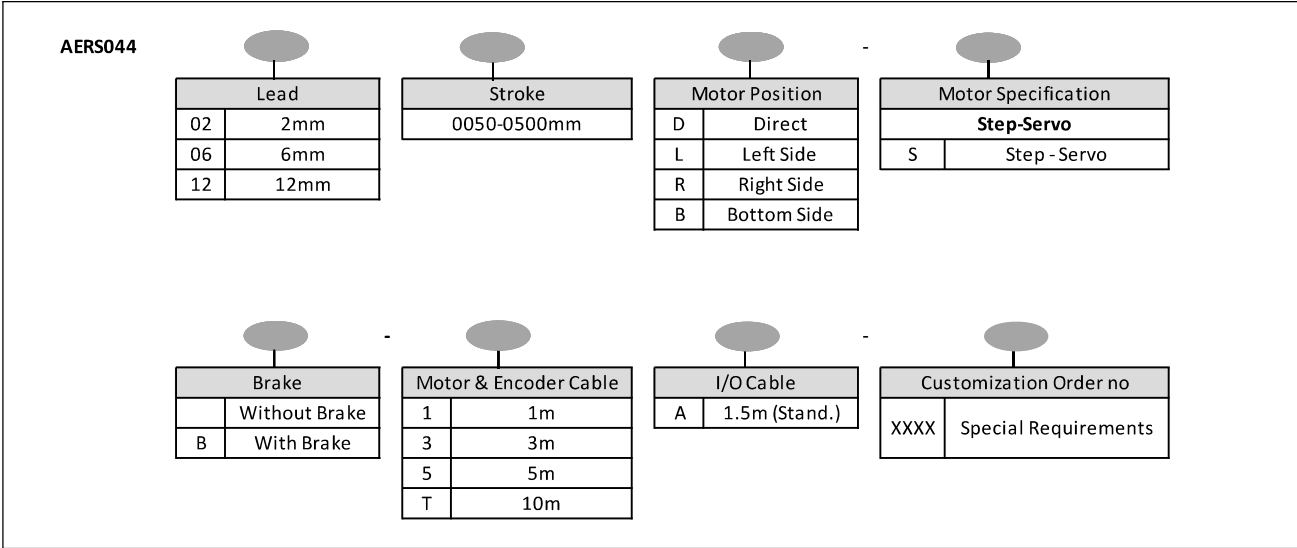
Stroke	50	100	150	200	250	300	350	400	450	500
L	295	345	395	445	495	545	595	645	695	745
L1	248	298	348	398	448	498	548	598	648	698
A	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5
N	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475
*Weight(kg)	1.63	1.88	2.13	2.38	2.62	2.87	3.12	3.37	3.61	3.86

Linear Electric Actuator

Series AERS

Cat :

How to order



Example:

Order no. for Rod type ball screw electric actuator 44mm size, 6mm Lead, 200mm stroke with step-servo motor mounted at the motor Direct, With 3m Motor & Encoder cable and 1.5m I/O cable.

AERS044060200D-S-3A

Linear Electric Actuator

Series AERS

Cat :

Rod Type Ball Screw Actuator - 54mm

Features

- Compact robust design
- Highly flexible mounting
- More precise & positioning
- Ease of positioning
- Ease of maintenance



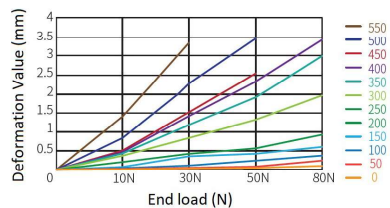
Technical Specifications

Repeatability (mm)		±0.01			
Ball screw lead (mm)		2	5	10	20
Maximum speed*	Horizontal (mm/s)*	≤ 100	≤ 250	≤ 500	≤ 1000
	Vertical (mm/s)	≤ 100	≤ 250	≤ 500	≤ 1000
Maximum payload	Horizontal (Kg)**	≤ 30	≤ 30	≤ 15	≤ 10
	Vertical (Kg)	≤ 10	≤ 10	≤ 5	≤ 2.5
Rated thrust (N)		1147	459	229	115
Stroke / pitch (mm)		50-600mm / 50 mm Pitch			
Ball screw ø (mm)		C7 Ø 12			
Coupling (mm)		7x8			
Home sensor	Outside	CS-6T (NPN)			

*The maximum speed shown here is when software speed setting is 100%.

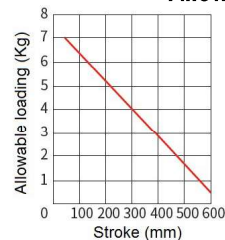
**If payload is near maximum, it requires to collocate externally with auxiliary guideway for bearing radial load.

Shaft output deformation value

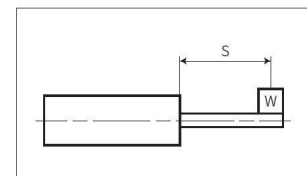


This form is only reference values

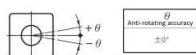
Allowable installation load



No external auxiliary mechanism, extension distance of load = 0.

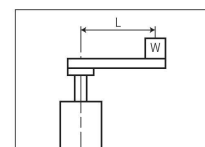
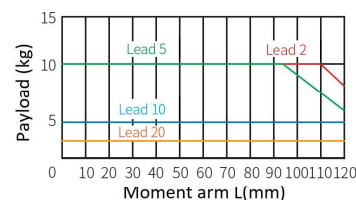


Anti-rotating accuracy of rod



With built-in circular guideway, so the rod shaft of actuator does not rotate.

Load in vertical installation



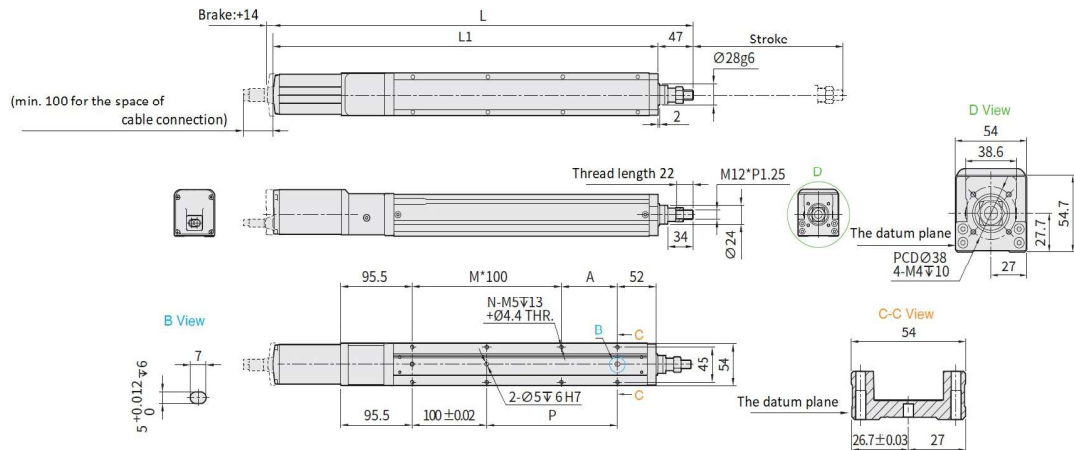
Calculation Conditions: 3000rpm/min, acceleration and deceleration: 0.3s

Linear Electric Actuator

Series AERS

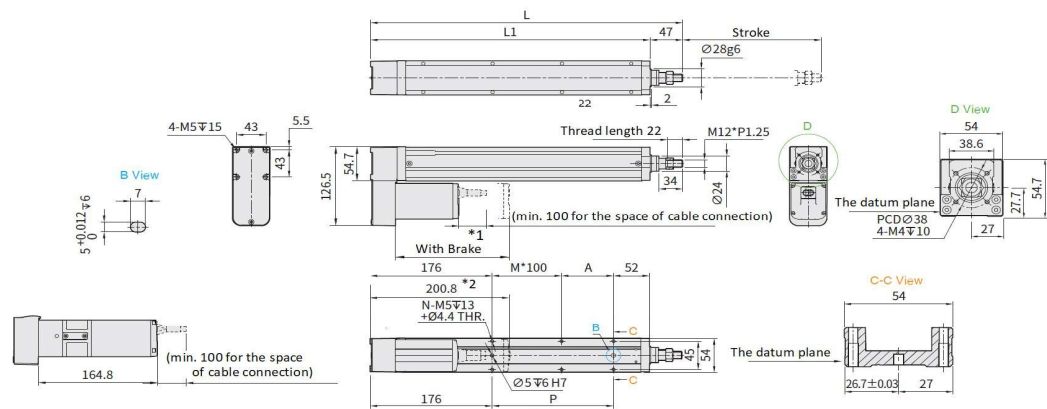
Cat :

Motor Direct - D



Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	411	461	511	561	611	661	711	761	811	861	911	961
L1	364	414	464	514	564	614	664	714	764	814	864	914
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
*Weight(kg)	1.91	2.12	2.34	2.56	2.77	2.99	3.21	3.42	3.64	3.86	4.07	4.29

Motor Bottom Side - B



*1. When the brake is added, dimension and outer side will be changed as above: *2. When choosing brake, please check if the fixed holes match demand.

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	0	0	1	1	2	2	3	3	4	4	5	5
N	4	4	6	6	8	8	10	10	12	12	14	14
P	25	75	125	175	225	275	325	375	425	475	525	575
*Weight(kg)	2.3	2.49	2.69	2.89	3.08	3.28	3.48	3.67	3.87	4.07	4.26	4.46

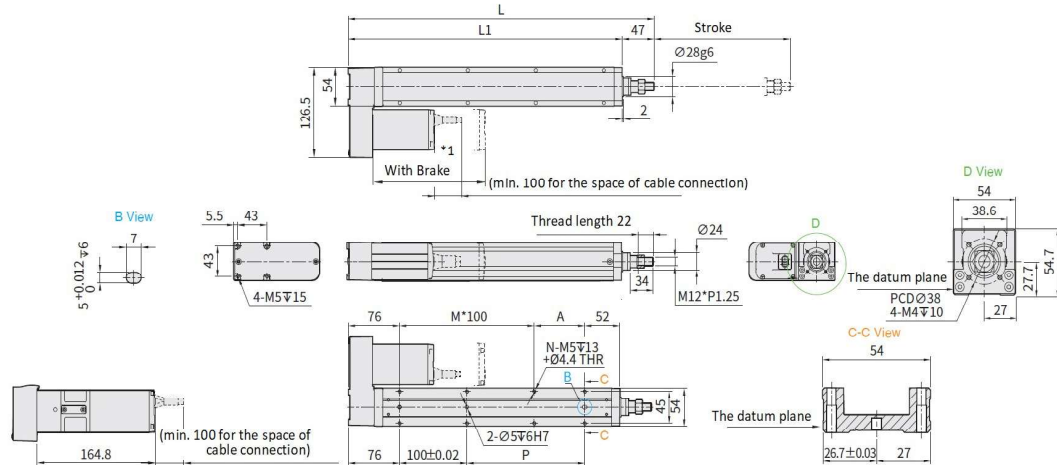
(Note: When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact us if you need more information.)

Linear Electric Actuator

Series AERS

Cat :

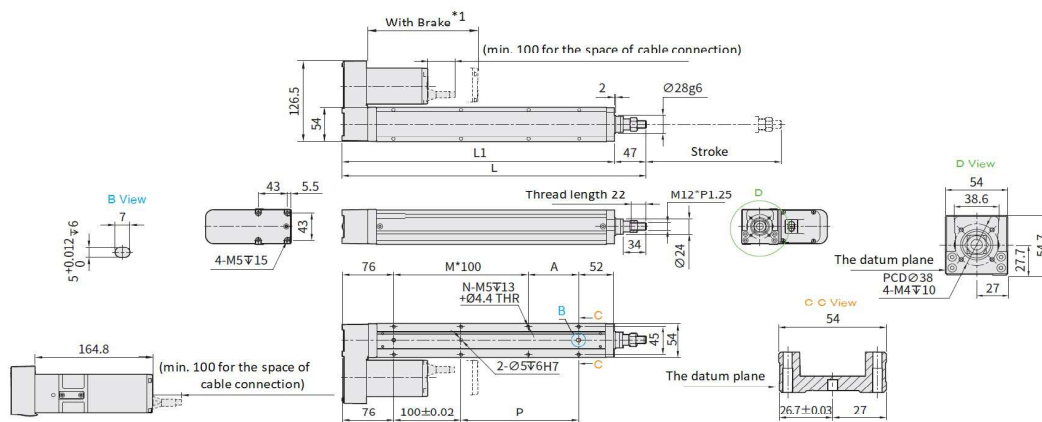
Motor Left Side - L



*1. When the brake is added, dimension and outer side will be changed as below:

Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
*Weight(kg)	2.3	2.49	2.69	2.89	3.08	3.28	3.48	3.67	3.87	4.07	4.26	4.46

Motor Right Side - R



*1. When the brake is added, dimension and outside will be changed as below:

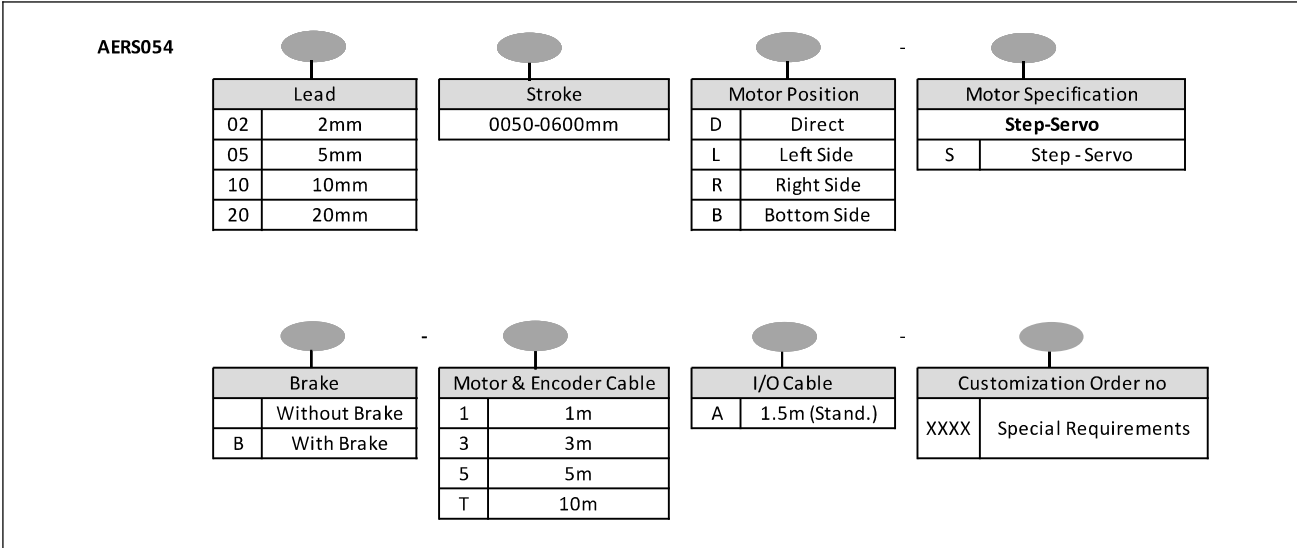
Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	300	350	400	450	500	550	600	650	700	750	800	850
L1	253	303	353	403	453	503	553	603	653	703	753	803
A	25	75	25	75	25	75	25	75	25	75	25	75
M	1	1	2	2	3	3	4	4	5	5	6	6
N	6	6	8	8	10	10	12	12	14	14	16	16
P	25	75	125	175	225	275	325	375	425	475	525	575
*Weight(kg)	2.3	2.49	2.69	2.89	3.08	3.28	3.48	3.67	3.87	4.07	4.26	4.46

Linear Electric Actuator

Series AERS

Cat :

How to order



Example:

Order no. for Rod type ball screw electric actuator 54mm size, 5mm Lead, 150mm stroke with step-servo motor mounted at the motor Direct, With 3m Motor & Encoder cable and 1.5m I/O cable.

AERS054050150D-S-3A

Linear Electric Actuator

Series AERS

Cat :

Speed – Stroke characteristics

Size (mm)	Motor Dimension (mm)	Ball Screw Lead (mm)	Max. Payload (kg)		Max. Speed* (mm/s)	Stroke(mm) & Max.Speed (m/s)**										
			Horizontal	Vertical		50	100	150	200	250	300	350	400	450	500	550
44	35	2	25	8	100	≤ 100										
		6	20	8	300	≤ 300										
		12	12	3.5	600	≤ 600										
54	42	2	30	10	100	≤ 100										
		5	30	10	250	≤ 250										
		10	15	5	500	≤ 500										
		20	10	2.5	1000	≤ 1000										

*The Working Condition of Max.Speed is restricted limited.Please refer to the curve graph of speed and loading in this catalog

**Written here is the standard stroke's maximum safe speed with in stroke. If over this speed, it may cause serious vibration.

The values in this table represent the maximum linear speed under zero load condition.

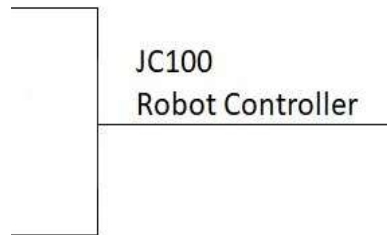
Linear Electric Actuator

JC 100 Controller

Cat :

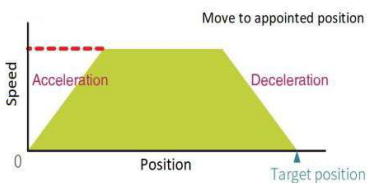
JC100

JC100 compatible to all series of module



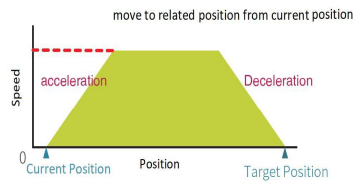
Main operation modes

ABS mode



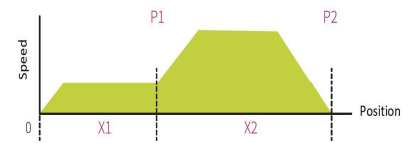
use ORG as origin, move to the appointed position.

INC mode



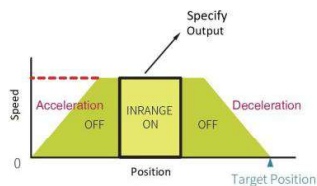
Use current position as origin, move to the relative position.

Continuous operation function (support ABS-R/INC-R mode simultaneously)



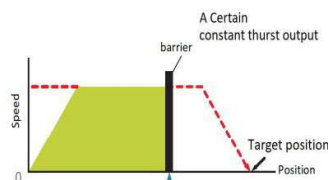
Change speed under non-stop status, the continuous operation function allow actuator moving among multiple coordinate points.

TSL thrust mode



Set up a special range. The "INRANGE" signal will be output when moving in the range. The "OFF" signal will be output when moving in the range. The "OFF" signal will be output when it is outside of the range.

Output signal in specified range



when current exceed set value, output TRQLIM
Set a max. Current value, when the current reach the value, it will not proceed further.

Linear Electric Actuator

JC 100 Controller

Cat :

Setting	Content
Operating mode	Position setting mode, total 7 types including INC and ABS...etc.
Moving position	Set absolute position or moving amount.
Moving speed	Set speed of movement (%)
Torque limit	Set operational current limit
Minimum Value of trigger range	Set the max and min value of the trigger range
Maximum Value of trigger range	
Acc time(m sec)	The time from accelerate speed to the setting speed
Dec time(m sec)	The time from setting speed to stop
Dowel time	Set dowel time after movement
Next item number	Jump to the next operational item after current one has ended.

Operational current auto setting

Operational current is the main factor determining the efficiency and lifetime of the robot. If the operational current is set too high, the extra performance will be wasted, or even the motor might be burnt. JC series controller can adjust operational current automatically based on the moving load, motor output and life time of the rail.

Flexible control Interface

One single unit can support 3 different control interfaces.

- **Pulse control:** Support Line Driver and Open collector Max.pulse receiving speed: 200k/60k Hz.
- **I/O control:** By I/O control, max. 127 positioning points can be executed.
- **Communication control:** use Mod bus as the interface of RS485(connect max.16 controllers) and 1 set mini USB.

Various control mode

Following control modes can be combined randomly to maximize the action mode.

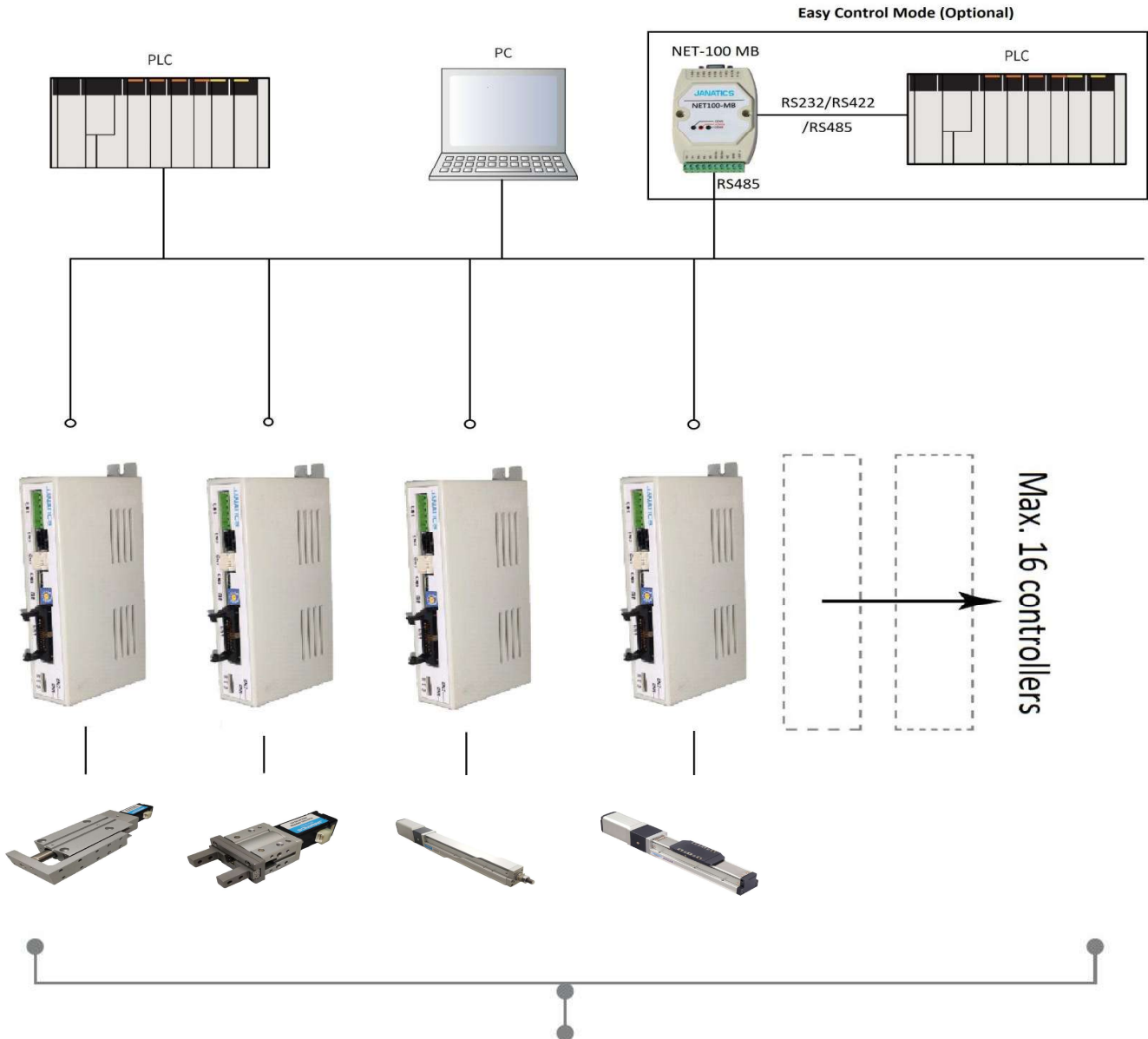
- Position control
- Speed control
- Gripping force control (Electric Gripper only)
- Measure control (Electric Gripper only)
- Pushing force control

Linear Electric Actuator JC 100 Controller

Cat :

Possible to connect 16 stations via RS-485

The user can connect PC, PLC or other devices which can transfer data via RS-485 to JC100 controller. It is very convenient to do the setting, Controlling and monitoring up to 16 units of JC100 at once.



The maximum number of connecting unit is 16.

Linear Electric Actuator

JC 100 Controller

Cat :

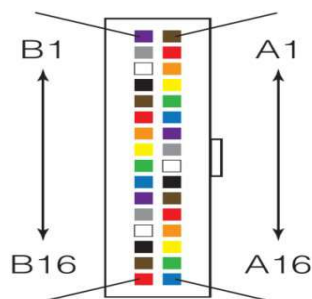
JC 100

JC100 Specification and connectors

Specification

Item		Specification
Input power	Control power	DC 24V (±10%)
	power supply	DC 24V (±10%) / DC 48V (±10%)
Number of controlled axis		1 Single axis
Motor	Appropriate motor	Two phrase stepping motor
	Dimension	56\42\35\25\20
	Rated output	2Ao-p Peak value of sine wave current
	Instant maximum Output	3Ao-p Peak value of sine wave current
Motion control mode		ABS Mode
		INC Mode
		INC-R Continuous Mode
		ABS-R Continuous Mode
		TSL Thrust Mode
Position	Total number of points	1~127 points
	Points setting method	Communication setting point position I/O point position teaching
Encoder	Position management	Incremental
	Position checking	Incremental
	Resolution	16000ppr(56,42)□/12800ppr(35□)/9600ppr(25□)/1600(20□)
General DI/DO signal		DI (14 points)/DO (10 points) NPN Modify definition through parameter
Brake		Optional (Please inform before buying)
Error history		Maximum storage for 50 error code
Safety circuit		Emergency stop switch (servo OFF)
Communication		USB (virtual COM port): Mini USB/RS485(half duplex):RJ-45
LED status display		PWR power supply(green): permanent radiating when drive + control power supply input, green flashing when the drive power supply was turned off.
		SON servo(green): permanent radiating when servo ON, extinguished when the error shows.
		ERR error: (red): use the times of flashing to decide the error messages.
Station number setting		Rotating DIP switch (0-f), 16 station

IO Plug



Linear Electric Actuator

JC 100 Controller

Cat :

JC100 Dimension and Terminal

Ordering model Controller

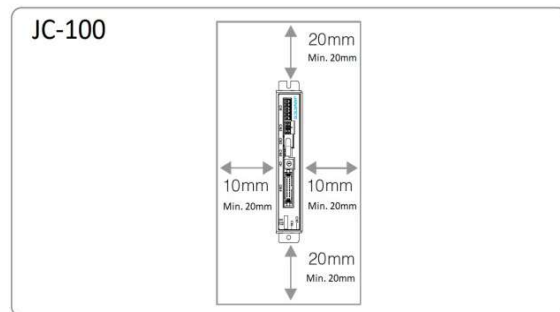
Motor Specification	
Step-Servo	
JC100	JC100 Step - Servo Controller

Controller Cables

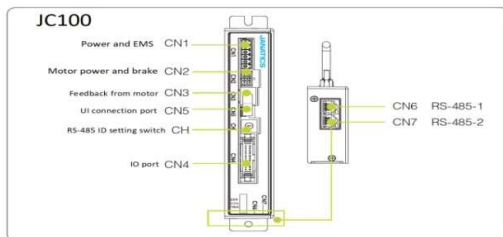
Motor & Encoder Cable	
1	1m
3	3m
5	5m
T	10m

I/O Cable	
0	Without cable
A	1.5m (Standard)

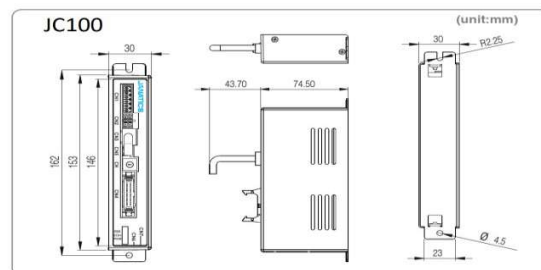
Recommended assembly method



Port explanation



Controller dimension



Restricted setting condition

1. Environment with corrosive explosive and flammable gas and combustible liquids.
2. Environment with heavy dust.
3. Locations where can be polluted by other equipment's coolant.
4. Locations with high vibrations (0.5G or above).
5. Please locate the controller as shown on the right for correct Installation Position.

IO Signal (Factory default)

No	Signal name	Content description	Note	NO	Signal name	Content description	Note
A1	COM+	I/O+24V Power	+24V±10% Unset parameter: ORG_SIG MANUAL JOG+ JOG- TEACH BK_OFF CONT_MODE FULL_COUNT	B1	OUT1	ORG-S	Unset parameter: ALARM MOVE PRGSEL6-S TRQLIM ERR0 : ERR3 INRANGE NEAR SOFTLMT
A2	COM-	I/O 0V Power		B2	OUT2	INP	
A3	IN1	ORG		B3	OUT3	READY	
A4	IN2	SERVO		B4	OUT4	SERVO-S	
A5	IN3	ALM_RESET		B5	OUT5	PRGSEL0-S	
A6	IN4	START		B6	OUT6	PRGSEL1-S	
A7	IN5	PRGSEL0		B7	OUT7	PRGSEL2-S	
A8	IN6	PRGSEL1		B8	OUT8	PRGSEL3-S	
A9	IN7	PRGSEL2		B9	OUT9	PRGSEL4-S	
A10	IN8	PRGSEL3		B10	OUT10	PRGSEL5-S	
A11	IN9	PRGSEL4		B11	P1+	CW \ PULSE	
A12	IN10	PRGSEL5		B12	P1-		
A13	IN11	PRGSEL6		B13	P2+	CCW \ DIR	
A14	IN12	LOCK		B14	P2-		
A15	IN13	-	B15	Reserved	-		
A16	IN14	-	B16	FG	Shielded web/ground		

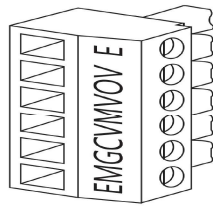
Linear Electric Actuator

JC 100 Controller

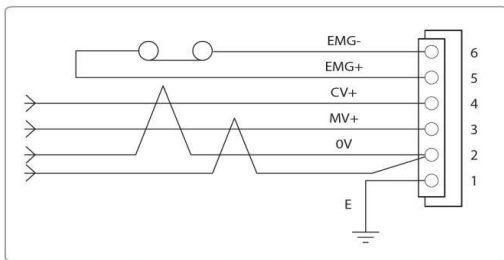
Cat :

Pin Designation

NO	Signal Name	Explanation
1	E	Grounding (Ensure to connect to ground to avoid disturbance)
2	0V	GND
3	MV +	Main power supply : DC24V ± 10% : DC48 ± 10%
4	CV +	Controlling power : DC24V ± 10%
5	EMG +	EMS(please use normal close connection) (Relay)
6	EMG -	

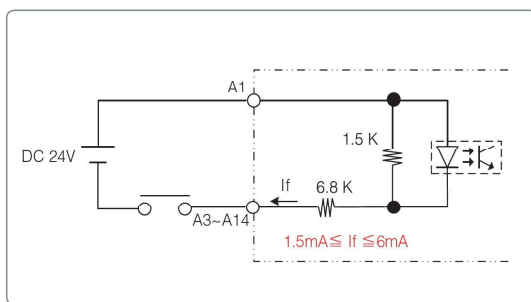


EMS and Power wiring

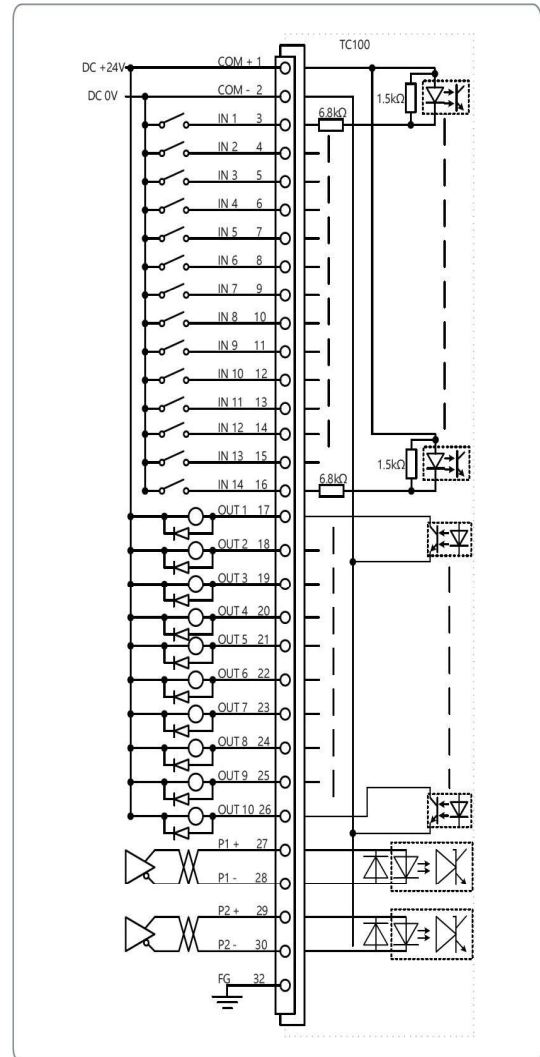


Relay Wiring

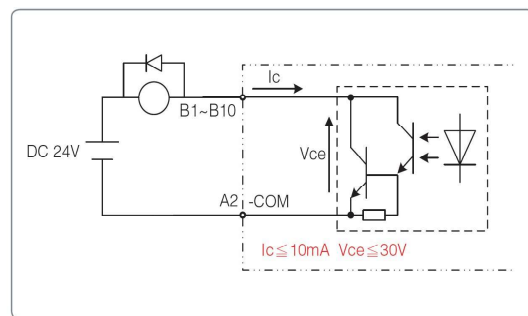
Input Circuit



IN/OUT(NPN) IO wiring (NPN)



Output Circuit



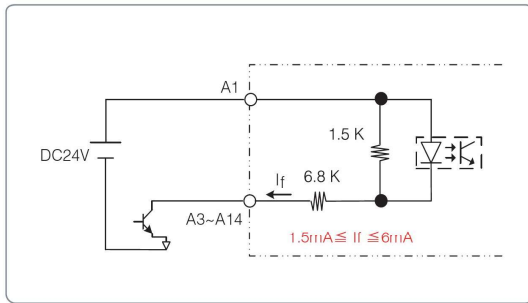
Linear Electric Actuator

JC 100 Controller

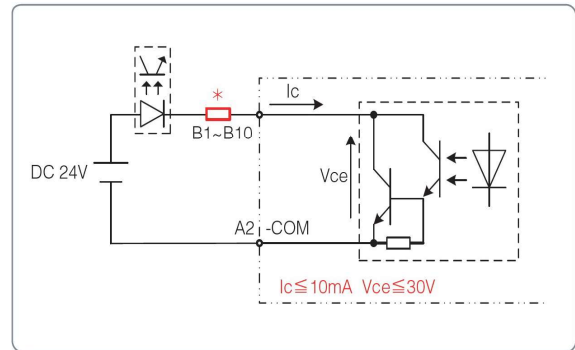
Cat :

Transistor wiring

Input Circuit

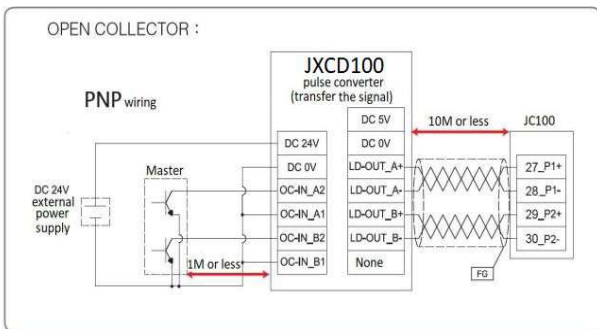
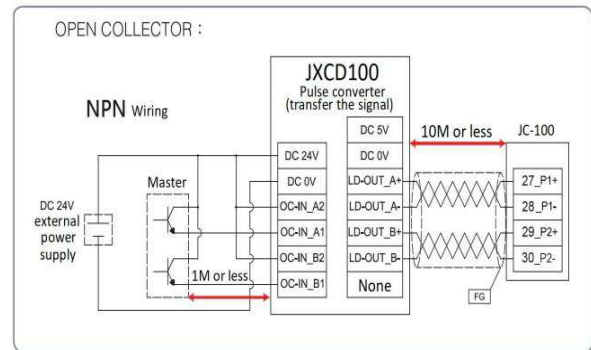


Output Circuit



* Note: Please consider the output saturation voltage of optocoupler 1Vtype (when output current is 10mA).

Pulse output wiring










At the external Pulse mode, after homing completed, assigned current position and current position cannot be clear to 0. it is normal situation, it will not affect the process of pulse sending.

Linear Electric Actuator

JC 100 Controller

Cat :

Accessories list

Power supply connector	IO Cable (Shielded type)	Motor & Encoder cable	Pulse Transfer Module	Mini USB cable for supporting software	RJ-45 cable for RS-485 connections	Communication Module		
								
JC100-CON-POW-00	JC100-SD-IO-CAB-A	JC100-CAB-STA-T		JC100-OPEN TO LINE	JC100-CAB-PCL-01	JC100-CAB-485-T		JC100-CM-100-MB
		1	1m			1	1m	
		3	3m			3	3m	
		5	5m			5	5m	
T	10m	T	10m					