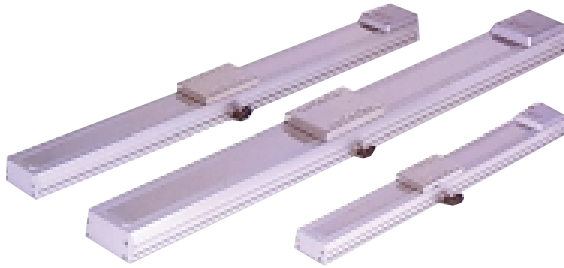




Class 10 Compliance

ISD CR



CLEAN ROOM TYPE

Class 10 Compliance

Specification

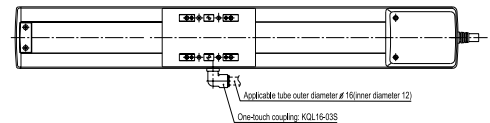
Type	Capacity	Lead (mm)	Maximum Velocity (mm/s)	Horizontal Payload (Kg)	Moment [N·m (Kg·m)]			Stroke (mm)
					MA	MB	MC	
S (Small Type)	60	4	190~200	50	28.4 (2.9)	40.2 (4.1)	65.7 (6.7)	100~600
		8	380~400	25				
		16	760~800	12				
M (Medium Type)	100	5	125~250	80	69.6 (7.1)	99.0 (10.1)	161.7 (16.5)	100~1000
		10	250~500	40				
	20	500~1000	20					
	20	250~500	80					
L (Large Type)	200	20	500~1000	40	104.9 (10.7)	149.9 (15.3)	248.9 (25.4)	100~1200
		10	230~500	80				
		20	465~1000	40				
	400	20	465~1000	80				

Features

- Clean Room class 10 (0.1 μm) compliance.
- A protective stainless steel sheet helps to restrict the migration of particles generated from within the actuator, and also reduces the level of vacuum needed to evacuate the actuator.
- Designed for high velocity and high payload, with excellent repeatability of positioning.

Repeatability: ±0.02
 Maximum Stroke: 1200mm
 Maximum Velocity: 1000mm/sec
 Maximum Payload: 80kg

- Quick-Connect Vacuum Fitting.



Model Name

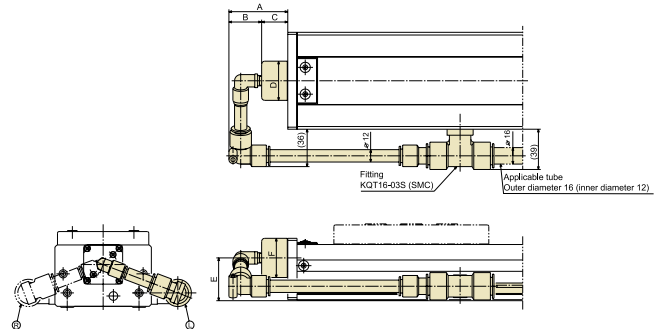
ISD - S - 4 - 60 - 600 CR - B

1 2 3 4 5 6

No.	Item	Content
1	Type	ISD CR (IS Dust Shield Clean Room Type)
2	Size	S: Small Type
		M: Medium Type
		L: Large Type
3	Screw Lead	Small Type: 4, 8, 16
		Medium Type: 5, 10, 20
		Large Type: 10, 20
4	Power	Small Type: 60W
		Medium Type: 100W, 200W
		Large Type: 200W, 400W
5	Stroke	Small Type: 100~600
		Medium Type: 100~1000
		Large Type: 100~1200
6	Option	B: Brake
		R: Vacuum fitting on the right side (*The standard position of vacuum fitting is on the left side of the actuator).

Vacuum Fitting Dimensions (Brake Option):

Size	S	M	M	L	L
Motor Wattage	60W	100W	200W	200W	400W
A	57.4	58.9	58.9	58.9	58.9
B	31.9	31.9	31.9	31.9	31.9
C	25.5	27	27	27	27
D	38	50	50	50	60
E	41.5	49	49	61	61
F	38	50	50	50	60

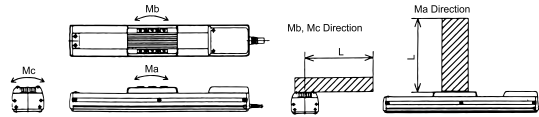


ISD-S-□- 60 CR [Small 60W Type]

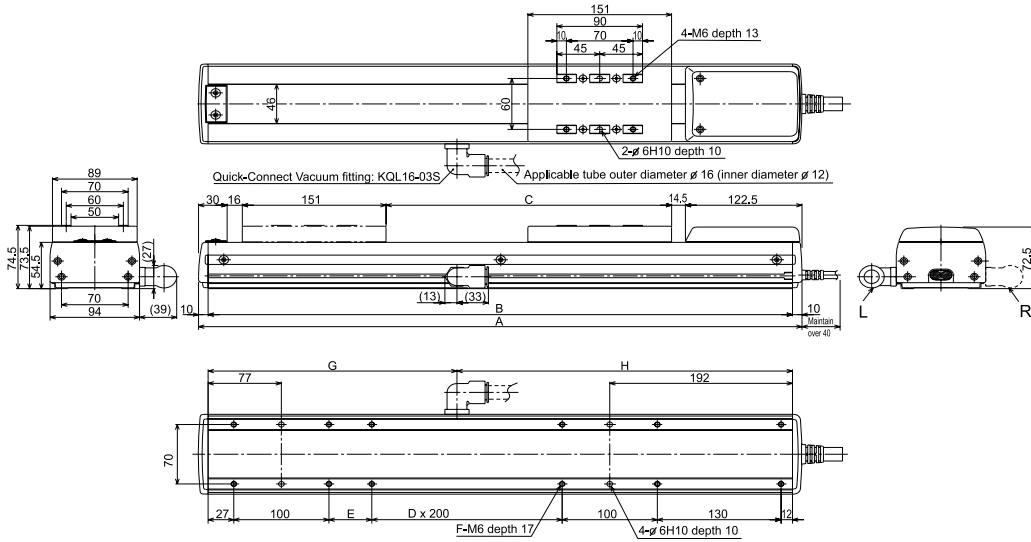
Stroke	mm	100	200	300	400	500	600
Clean Level *1		Class 10 compliance (0.1μ m)					
Rated Output	W	60					
Maximum Velocity	mm/sec	200 [400] {800}					190 [380] {760}
Rated Thrust	N (Kgf)	254.8 (26.0) [127.4 (13.0)] {63.7 (6.5)}					
Repeatability	mm	± 0.02					
Weight	Kg	4.0	4.6	5.3	5.9	6.5	7.2
Motor		AC Servo Motor					
Encoder		Single Unit with the motor					
Ballscrew		φ 12mm, lead 4mm [8mm] {16mm} Rolled thread C10, Backlash 0.05mm or less					
Guide		ISD Exclusive Single Unit					
Motor/Ballscrew Coupling		Motor shaft, Ballscrew shaft integrated in a single unit					
Base, Slider		Extruded aluminum (A6N01S-T5 equivalent) White alumite treatment					
Protective Stainless Sheet		Special stainless steel (SUS430 equivalent) Thickness 0.1mm					
Grease		Low-Particle Generating Grease					
Suction Pipe Coupling		Quick-Connect Vacuum Fitting Applicable Tube Outer Diameter φ16					
Maximum Thrust *2	N (Kg)	509.6 (52.0) [254.8 (26.0)] {127.4 (13.0)}					
Slider *3 *4	Kgw	Horizontal use: 50 [25] {12} Vertical use: 14 [6] {3}					
Load Moment *3, *5	N*m (Kgf*m)	Ma: 28.4 (2.9) Mb: 40.2 (4.1) Mc: 65.7 (6.7)					
Overhang Load Length L *6	mm	Ma Direction: Under 450 Mb, Mc Direction: Under 450					

- *1) Vacuum rate is for when 10-30NL/Min (-3~-13mmAq).
- *2) At a speed of 10mm/sec for 5 seconds.
- *3) Load uniformly distributed on the slider. Base affixed to a flat, strong frame.
- *4) At an acceleration of 0.15G [0.3G] {0.3 G}, and 200mm, [400mm] {800mm} mm/sec speed.

*5) Direction of load moment is: *6) Center of gravity for the mounted object is at the halfway point of the overhang length.



Dimensions



Brake Specification

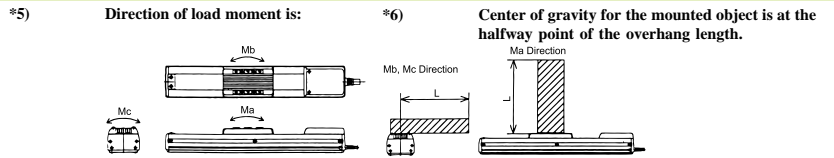
Specification	Electromagnetic brake		
	4	8	16
Screw Axis Lead mm	4	8	16
Maintenance Power N (Kgf)	251.3 (25.6)	125.7 (12.8)	62.8 (6.4)
Mounting Position	Non-motor end		
Rated Voltage	DC45V (Initial excitation voltage DC90V)		

Stroke	100	200	300	400	500	600
A	434	534	634	734	834	934
B	414	514	614	714	814	914
C	100	200	300	400	500	600
D	---	---	1	1	2	2
E	45	145	45	145	45	145
F	10	10	12	12	14	14
G	159.0	211.5	261.5	311.5	359.0	411.5
H	255.0	302.5	352.5	402.5	455.0	502.5

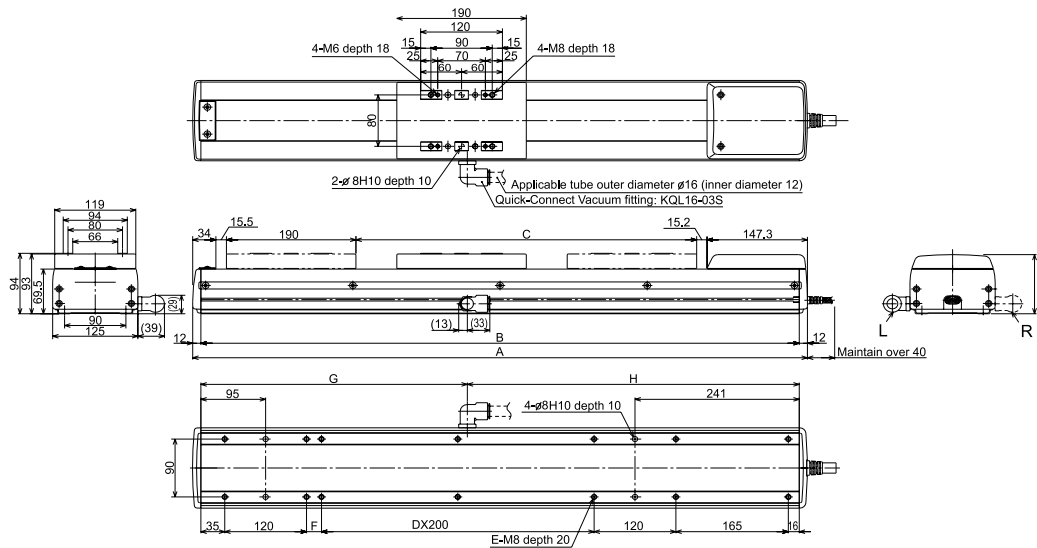
ISD-M-□-100 CR [Medium 100 W type]

Stroke	mm	100	200	300	400	500	600	700	800	900	1000
Clean Level *1		Class 10 compliance (0.1μ m)									
Rated Output	W	100									
Maximum Velocity	mm/sec	250 [500] {1000}						225 [455] {915}	180 [365] {735}	150 [300] {600}	125 [250] {500}
Rated Thrust	N (Kgf)	340.1 (34.7) [169.5 (17.3)] {84.3 (8.6)}									
Repeatability	mm	± 0.02									
Weight	Kg	7.8	8.9	10.1	11.2	12.3	13.5	14.6	15.7	16.9	18.0
Motor		AC Servo Motor									
Encoder		Single Unit with the motor									
Ball screw		φ 16mm, lead 5mm [10mm] {20mm} Rolled thread C10, Backlash 0.05mm or less									
Guide		ISD Exclusive Single Unit									
Motor/Ballscrew Coupling		Motor shaft, Ballscrew shaft integrated in a single unit									
Base, Slider		Extruded aluminum (A6NO1S-T5 equivalent) White alumite treatment									
Protective Stainless Sheet		Special stainless steel (SUS430 equivalent) Thickness 0.1mm									
Grease		Low-Particle Generating Grease									
Suction Pipe Coupling		Quick-Connect Vacuum Fitting Applicable Tube Outer Diameter φ16									
Maximum Thrust *2	N (Kg)	680.2 (69.4) [339.0 (34.7)] {168.6 (17.2)}									
Slider *3 *4	Kgw	Horizontal use: 80 [40] {20} Vertical use: 19 [9] {5}									
Load Moment *3, *5	N•m (Kgf•m)	Ma: 69.6 (7.1) Mb: 99.0 (10.1) Mc: 161.7 (16.5)									
Overhang Load Length L *6	mm	Ma Direction: Under 600 Mb, Mc Direction: Under 600									

- *1) Vacuum rate is for when 15~70NL/Min (-4~-40mmAq).
- *2) At a speed of 10mm/sec for 5 seconds.
- *3) Load uniformly distributed on the slider. Base affixed to a flat, strong frame.
- *4) At an acceleration of 0.15G [0.3G] {0.3 G}, and 250 [500] {1000} mm/sec speed.



n Dimensions



Brake Specification

Specification	Electromagnetic brake		
	5	10	20
Screw Axis Lead mm	5	10	20
Maintenance Power N (Kgf)	492.6 (50.3)	246.3 (25.1)	123.2 (12.6)
Mounting Position	Non-motor end		
Rated Voltage	DC45V (Initial excitation voltage DC90V)		

Stroke	100	200	300	400	500	600	700	800	900	1000
A	502	602	702	802	902	1002	1102	1202	1302	1402
B	478	578	678	778	878	978	1078	1178	1278	1378
C	100	200	300	400	500	600	700	800	900	1000
D	---	---	1	1	2	2	3	3	4	4
E	10	10	12	12	14	14	16	16	18	18
F	22	122	22	122	22	122	22	122	22	122
G	191	240	290	340	391	440	490	540	591	640
H	287	338	388	438	487	538	588	638	687	738

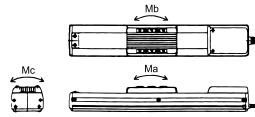
Specifications in [] are for 8mm lead. Specifications for { } are for 20mm lead.

ISD-M-□-200 CR [Medium 200W Type]

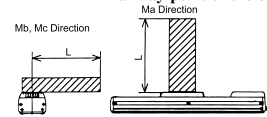
Stroke	mm	100	200	300	400	500	600	700	800	900	1000	
Clean Level *1		Class 10 compliance (0.1μ m)										
Rated Output	W	200										
Maximum Velocity	mm/sec	[500] {1000}						455 [955]	365 [735]	300 [600]	250 [500]	
Rated Thrust	N (Kgf)	340.1 (34.7) [169.5 (17.3)]										
Repeatability	mm	± 0.02										
Weight	Kg	7.8	8.9	10.1	11.2	12.3	13.5	14.6	15.7	16.9	18.0	
Motor		AC Servo Motor										
Encoder		Single Unit with the motor										
Ballscrew		φ 16mm, lead 10mm {20mm} Rolled thread C10, Backlash 0.05mm or less										
Guide		Direct recirculating rolling bearing: Hardened carbon steel ground track										
Motor/Ballscrew Coupling		Motor shaft, Ballscrew shaft integrated in a single unit										
Base, Slider		Extruded aluminum (A6N01S-T5) White alumite treatment										
Protective Stainless Sheet		Special stainless steel (SUS430 equivalent) Thickness 0.1mm										
Grease		Low-Particle Generating Grease										
Suction Pipe Coupling		Quick-Connect Vacuum Fitting Applicable Tube Outer Diameter φ16										
Maximum Thrust *2	N (Kg)	680.2 (69.4) [339.0 (34.7)]										
Slider *3 *4	Kgw	Horizontal use: 80 [40] Vertical use: 19 [9]										
Load Moment *3, *5	N•m (Kgf•m)	Ma: 69.6 (7.1) Mb: 99.0 (10.1) Mc: 161.7 (16.5)										
Overhang Load Length L *6	mm	Ma Direction: Under 600 Mb, Mc Direction: Under 600										

- *1) Vacuum rate is for when 30~70NL/Min (-12~40mmAq).
- *2) At a speed of 10mm/sec for 5 seconds.
- *3) Load uniformly distributed on the slider. Base affixed to a flat, strong frame.
- *4) At an acceleration of 0.3 G, and 500 [1000] mm/sec speed.

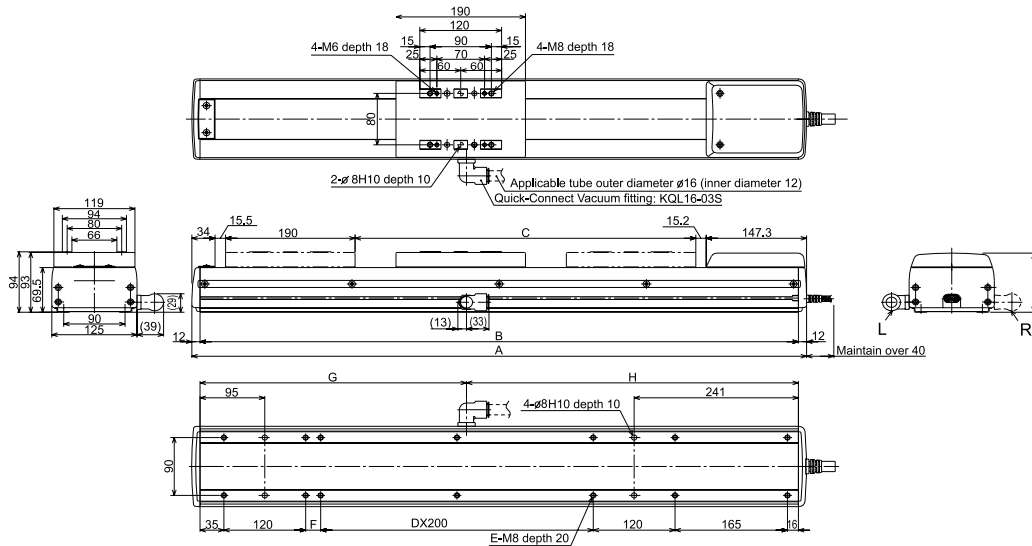
*5) Direction of load moment is:



*6) Center of gravity for the mounted object is at the halfway point of the overhang length.



n Dimensions



Brake Specification

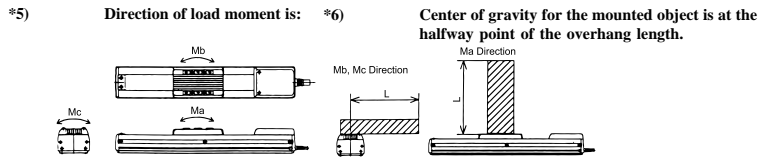
Specification	Electromagnetic brake	
Screw Axis Lead mm	10	20
Maintenance Power N (Kgf)	246.3 (25.1)	123.2 (12.6)
Mounting Position	Non-motor end	
Rated Voltage	DC45V (Initial excitation voltage DC90V)	

Stroke	100	200	300	400	500	600	700	800	900	1000
A	502	602	702	802	902	1002	1102	1202	1302	1402
B	478	578	678	778	878	978	1078	1178	1278	1378
C	100	200	300	400	500	600	700	800	900	1000
D	---	---	1	1	2	2	3	3	4	4
E	10	10	12	12	14	14	16	16	18	18
F	22	122	22	122	22	122	22	122	22	122
G	191	240	290	340	391	440	490	540	591	640
H	287	338	388	438	487	538	588	638	687	738

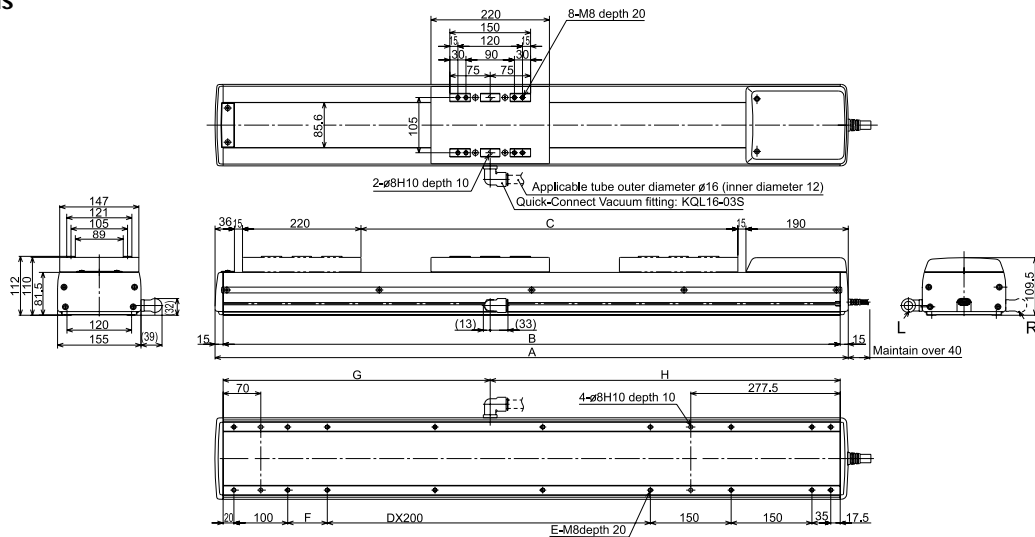
ISD-L-□- 200 CR [Large 200 W type]

Stroke	mm	100	200	300	400	500	600	700	800	900	1000	1100	1200	
Clean Level *1		Class 10 compliance (0.1μ m)												
Rated Output	W	200												
Maximum Velocity	mm/sec	[500] {1000}						465 [930]	380 [765]	320 [640]	270 [545]	230 [465]		
Rated Thrust	N (Kgf)	340.1 (34.7) [169.5 (17.3)]												
Repeatability	mm	± 0.02												
Weight	Kg	13.2	14.8	16.4	18.0	19.6	21.2	22.8	24.4	26.0	27.6	29.2	30.8	
Motor		AC Servo Motor												
Encoder		Single Unit with the motor												
Ball screw		φ 16mm, lead 10mm (20mm) Rolled thread C10, Backlash 0.05mm or less												
Guide		Direct recirculating rolling bearing: Hardened carbon steel ground track												
Motor/Ballscrew Coupling		Motor shaft, Ballscrew shaft integrated in a single unit												
Base, Slider		Extruded aluminum (A6N01S-T5 equivalent) White alumite treatment												
Protective Stainless Sheet		Special stainless steel (SUS430 equivalent) Thickness 0.1mm												
Grease		Low-Particle Generating Grease												
Suction Pipe Coupling		Quick-Connect Vacuum Fitting Applicable Tube Outer Diameter φ16												
Maximum Thrust *2	N (Kg)	680.2 (69.4) [339.0 (34.7)]												
Slider *3 *4	Kgw	Horizontal use: 80 [40] Vertical use: 19 [9]												
Load Moment *3, *5	N•m(Kgf•m)	Ma: 104.9 (10.7) Mb: 149.9 (15.3) Mc: 248.9 (25.4)												
Overhang Load Length L *6	mm	Ma Direction: Under 750 Mb, Mc Direction: Under 750												

- *1) Vacuum rate is for when 30~90NL/Min (-10~-60mmAq).
- *2) At a speed of 10mm/sec for 5 seconds.
- *3) Load uniformly distributed on the slider. Base affixed to a flat, strong frame.
- *4) At an acceleration of 0.3 G, and 500mm [1000mm] m/sec speed.



n Dimensions



Brake Specification

Specification	Electromagnetic brake	
Screw Axis Lead mm	10	20
Maintenance Power N (Kgf)	246.3 (25.1)	123.2 (12.6)
Mounting Position	Non-motor end	
Rated Voltage	DC45V (Initial excitation voltage DC90V)	

Stroke	100	200	300	400	500	600	700	800	900	1000	1100	1200
A	576	676	776	876	976	1076	1176	1276	1376	1476	1576	1676
B	546	646	746	846	946	1046	1146	1246	1346	1446	1546	1646
C	100	200	300	400	500	600	700	800	900	1000	1100	1200
D	---	---	1	1	2	2	3	3	4	4	5	5
E	12	12	14	14	16	16	18	18	20	20	22	22
F	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5
G	179.5	246.0	296.0	346.0	379.5	446.0	496.0	546.0	579.5	646.0	696.0	746.0
H	366.5	400.0	450.0	500.0	565.5	600.0	650.0	700.0	765.5	800.0	850.0	900.0

ISD-L -□-400 CR [Large 400W Type]

Stroke	mm	100	200	300	400	500	600	700	800	900	1000	1100	1200	
Clean Level *1		Class 10 compliance (0.1μ m)												
Rated Output	W	400												
Maximum Velocity	mm/sec	1000						930	765	640	545	465		
Rated Thrust	N (Kgf)	340.1 (34.7)												
Repeatability	mm	± 0.02												
Weight	Kg	13.2	14.8	16.4	18.0	19.6	21.2	22.8	24.4	26.0	27.6	29.2	30.8	
Motor		AC Servo Motor												
Encoder		Single Unit with the motor												
Ballscrew		φ 20mm, lead 20mm Rolled thread C10, Backlash 0.05mm or less												
Guide		Direct recirculating rolling bearing: Hardened carbon steel ground track												
Motor/Ballscrew Coupling		Motor shaft, Ballscrew shaft integrated in a single unit												
Base, Slider		Extruded aluminum (A6N01S-T5 equivalent) White alumite treatment												
Protective Stainless Sheet		Special stainless steel (SUS430 equivalent) Thickness 0.1mm												
Grease		Low-Particle Generating Grease												
Suction Pipe Coupling		Quick-Connect Vacuum Fitting Applicable Tube Outer Diameter φ16												
Maximum Thrust *2	N (Kg)	680.2 (69.4)												
Slider *3 *4	Kgw	Horizontal use: 80 Vertical use: 19												
Load Moment *3, *5	N•m (Kgf•m)	Ma: 104.9 (10.7) Mb: 149.9 (15.3) Mc: 248.9 (25.4)												
Overhang Load Length L *6	mm	Ma Direction: Under 750 Mb, Mc Direction: Under 750												

*1) Vacuum rate is for when 90NL/Min (-60mmAq).

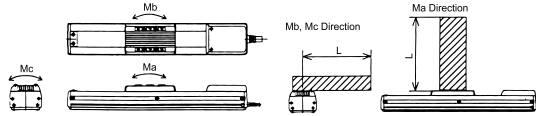
*2) At a speed of 10mm/sec for 5 seconds.

*3) Load uniformly distributed on the slider.
Base affixed to a flat, strong frame.

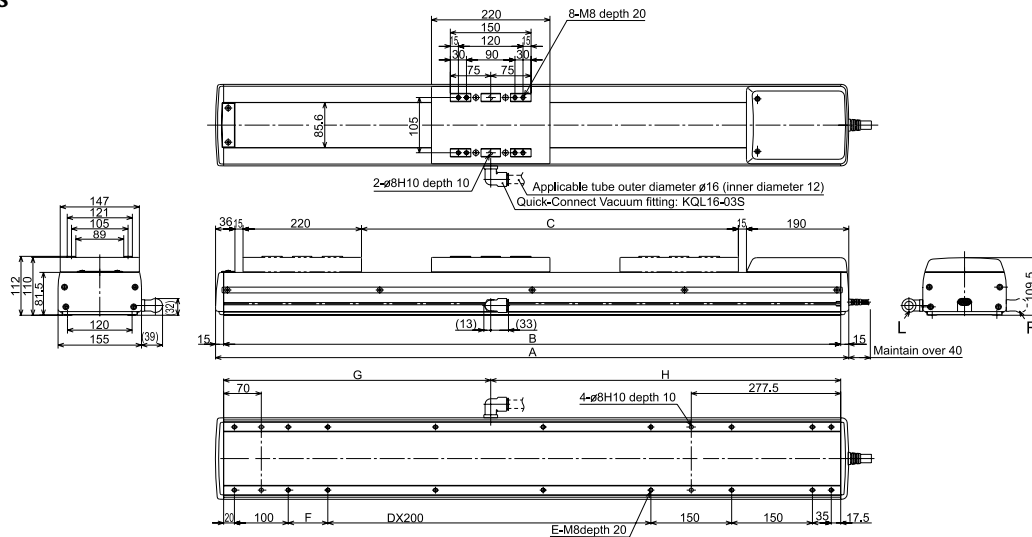
*4) At an acceleration of 0.3 G, and 1000mm/sec speed.

*5) Direction of load moment is:

*6) Center of gravity for the mounted object is at the halfway point of the overhang length.



Dimensions



Brake Specification

Specification	Electromagnetic brake
Screw Axis Lead mm	20
Maintenance Power N (Kgf)	215.5 (22.0)
Mounting Position	Non-motor end
Rated Voltage	DC45V (Initial excitation voltage DC90V)

Stroke	100	200	300	400	500	600	700	800	900	1000	1100	1200
A	576	676	776	876	976	1076	1176	1276	1376	1476	1576	1676
B	546	646	746	846	946	1046	1146	1246	1346	1446	1546	1646
C	100	200	300	400	500	600	700	800	900	1000	1100	1200
D	---	---	1	1	2	2	3	3	4	4	5	5
E	12	12	14	14	16	16	18	18	20	20	22	22
F	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5	73.5	173.5
G	179.5	246.0	296.0	346.0	379.5	446.0	496.0	546.0	579.5	646.0	696.0	746.0
H	366.5	400.0	450.0	500.0	566.5	600.0	650.0	700.0	766.5	800.0	850.0	900.0

**ISD-CR Series
Catalogue No. 1298-E**

The information contained in this catalog is subject to change without notice for the purpose of product improvement



Providing quality products since 1986



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