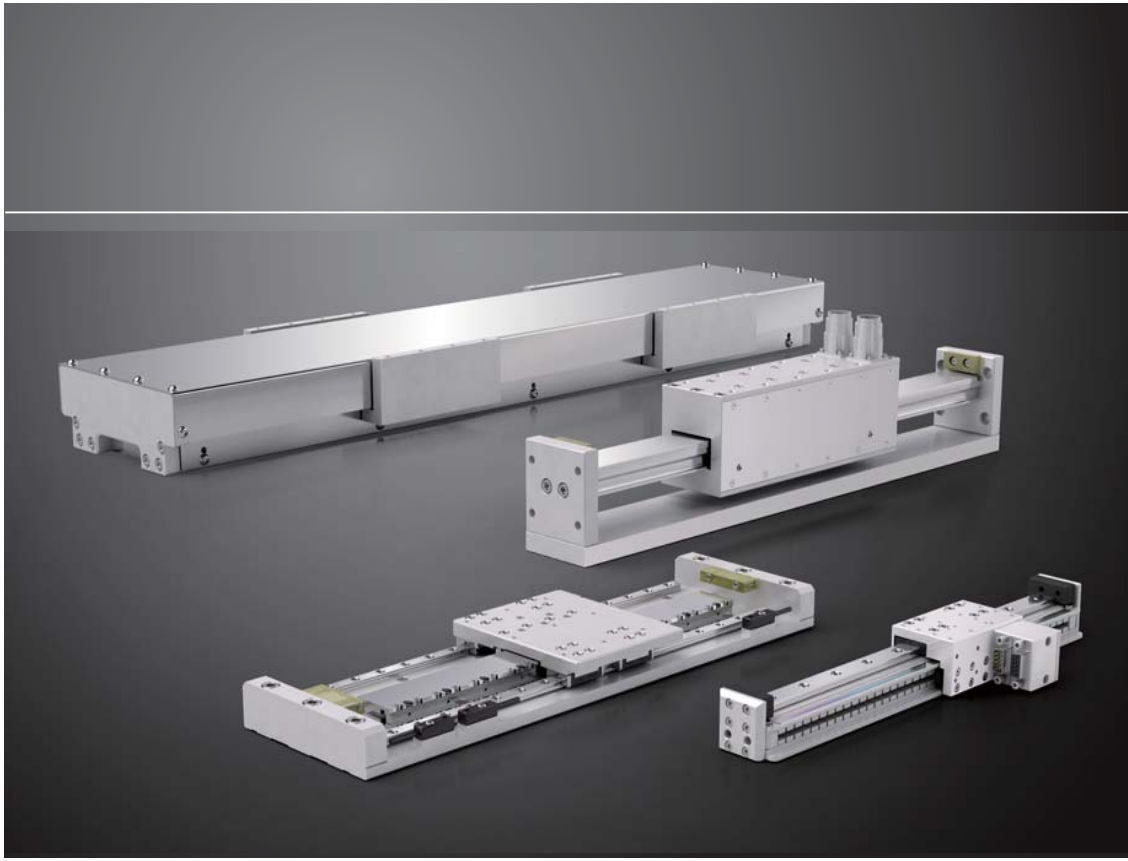
CHIEFTEK PRECISION CO., LTD.



Linear motor Stage

CHIEFTEK PRECISION CO., LTD.

HEADQUARTERS
CHIEFTEK PRECISION CO., LTD.
No.3, Dali 1st Rd., Sinshih Township,
Tainan Science Park, 741-45 Tainan, Taiwan, R.O.C
TEL:+886-6-505 5858 Http://www.chieftek.com
E-mail:service@mail.chieftek.com

CHIEFTEK PRECISION USA
4881 Murietta Street.
Chino, CA. 91710
Tel: +1-909-628-9300
Fax: +1-909-628-7171

cpc Europa GmbH
Industriepark 314,
D-78244 Gottmadingen, Germany
TEL:+49-7731-59130-38
FAX:+49-7731-59130-28

CHIEFTEK MACHINERY KUNSHAN CO., LTD.
No.1188, Hongqiao Rd, Kunshan,
Jiangsu, P.R. China
TEL:+86-512-5525 2831
FAX:+86-512-5525 2851

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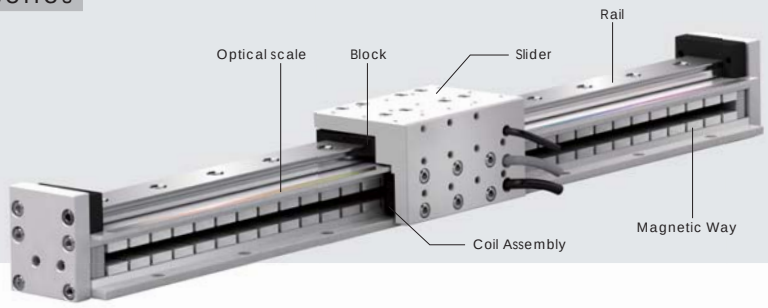
Contents

CLS-series

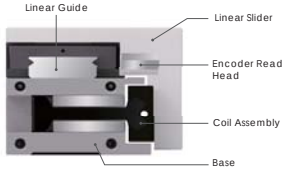


Compared to traditional ball screw modules, CLS series with direct drive coupling provides superior precision and velocity under many thrust output conditions. At the same time providing the same highly integrated mechanical design. Enabling increased productivity and reliability as a direct replacement.

Features

1 High rigidity、Compact structure

CLS combines the base, Linear motor, wide type linear guide supporting a aluminum slider and optical scale for position feedback.
The entire module achieves high integration and rigidity, providing the user with an optimal choice under a given thrust requirement.



2 Lightweight 、High velocity and acceleration

The linear motor in CLS is of the ironless type, combined with an aluminum slider it presents a low self load.
This forms a combination suitable for high acceleration and high velocity motion.

3 Smooth motion

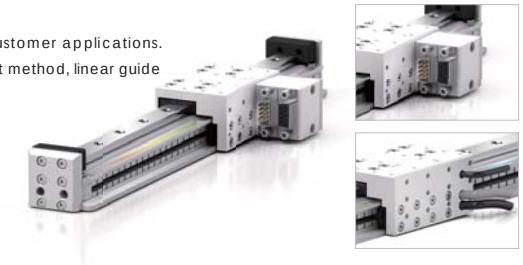
CLS uses ironless linear motor as the actuator with no cogging force, achieving high stability under low and high velocity motion.

4 Multiple slider on same axis

CLS can contains multiple sliders on the same axis, each individually controllable.

5 Customization

CLS modules can be customized for specific customer applications.
Options include: Mounting hole position, cable exit method, linear guide model, weight reduction, specific travel range etc.



Accuracy

Model	Maximum effective travel(mm)	Repeatability(μm)*1,2	Straightness(μm)*2
		Optical scale	
CLS-PM-4/6	152	2	6
	332		8
	512		10
CLS-PA-X2/4	220	2	6
	340		8
	520		10
	820		20
	1000		20
	1480		25
CLS-PB-X2/4/6	230	2	6
	530		10
	830		20
	1010		20
	1250		25
	1490		30

*1. This is the standard value of the aluminum base fixed on a 0.01/300mm platform. We can reach higher specification by changing the method and material based on customer's actual requirements.

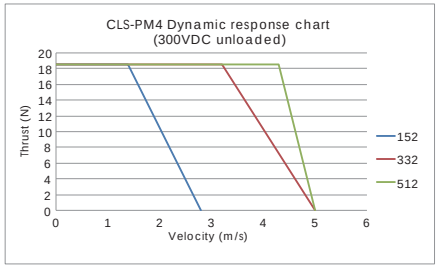
*2. This value is the result from encoder head with 1μm resolution. System accuracy can be elevated according to customer's requirements of 0.5, 0.2, and 0.1μm resolution.

CLS-PM Module Parameters

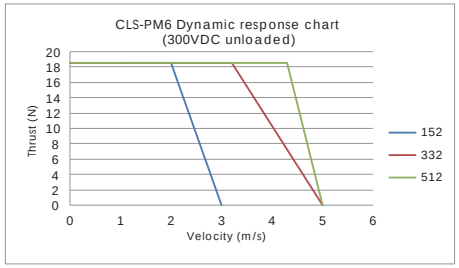
CLS		PM-4			PM-6		
Motor parameters							
Continuous Force (N)		18.5			25.5		
Peak Force (N)		74			102.5		
Continuous Current (Apeak)		5			4.6		
Peak Current (Apeak)		20			18.4		
Force Constant (N/Apeak)		3.7			5.5		
Back EMF constant (VL-L/m/s)		4.3			6.5		
Resistance (Ohms)		1.2			1.7		
Inductance (mH)		0.04			0.07		
Magnetic Pole Pitch (mm)		15			15		
Stage parameters							
Total Length (mm)		152	332	512	152	332	512
Effective Travel (mm)		45	225	405	15	195	375
Slider Mass (kg)(1)		0.25			0.35		
Module Weight(kg)(1)		0.7	1.4	2.1	0.9	1.5	2.2
Linear Guide Rated Load and Static Moment							
Model Code		MR7WN			MR7WL		
Block quantity		2			2		
Load Capacity (KN)	C (dyn)	2.4			3.1		
	Co (stat)	4.2			6.3		
Static Moment (Nm)	Mro(Nm)	30			45.3		
	Mpo(Nm)	40.7			97.2		
	Myo(Nm)	40.7			97.2		

(1) Moving Load refers to mass before addition of payload mass. This includes the slider platform, motor forcer, linear guide, cabling, optical encoder read head etc. For the Connector type termination option it is 0.12kg.

Dynamic Characteristics

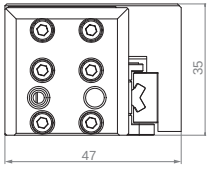


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact **cpc**

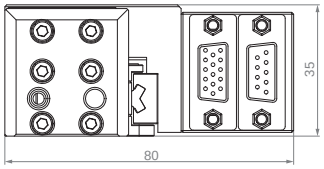


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact **cpc**

Assembly Dimensions



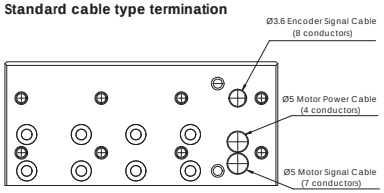
Standard cable type termination



Connector type termination

Wiring Definition

Standard cable type termination

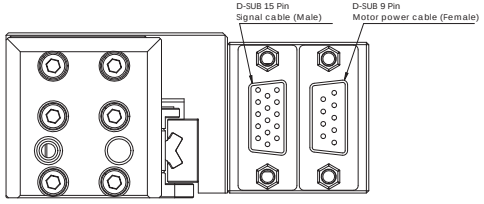


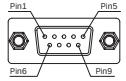
OUTPUT CABLE

Motor Wire Table		Hall Sensor Wire Table and Thermal Protection Wire Table			
Color	Function	Color	Function	Color	Function
White	phase U	Pink	Hall A U phase	Brown	Thermal sensor
Yellow	phase V	Yellow	Hall B V phase	Blue	
Brown	phase W	Green	Hall C W phase		
Green	PE	Grey	Hall IC + 5V		
		White	GND		

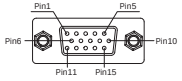
Encoder Signal connections	
Color	Function
Black	GND
Brown	Index-
Blue	B-
Yellow	A-
Red	5V
Orange	Index+
Purple	B+
Green	A+

Connector type termination





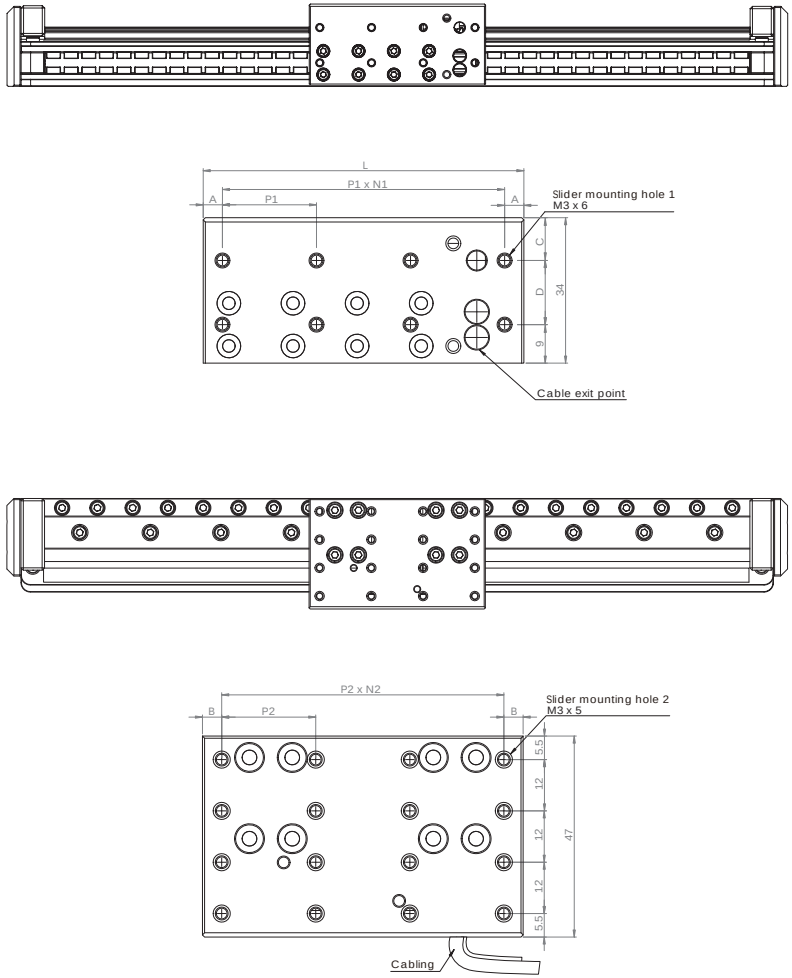
Power cable pin out	
Pin No.	Function
1	U
2	
6	
3	V
7	
8	
4	W
5	
9	
Frame	Isolation & GND



Signal cable pin out	
Pin No.	Function
1	GND
2	Index-
3	B-
4	A-
5	5V
6	Index+
7	B+
8	A+
9	Hall A U phase
10	Hall B V phase

Signal cable pin out	
Pin No.	Function
11	Hall C W phase
12	Hall IC + 5V
13	Hall GND
14	Thermal sensor
15	Thermal sensor
Frame	Isolation

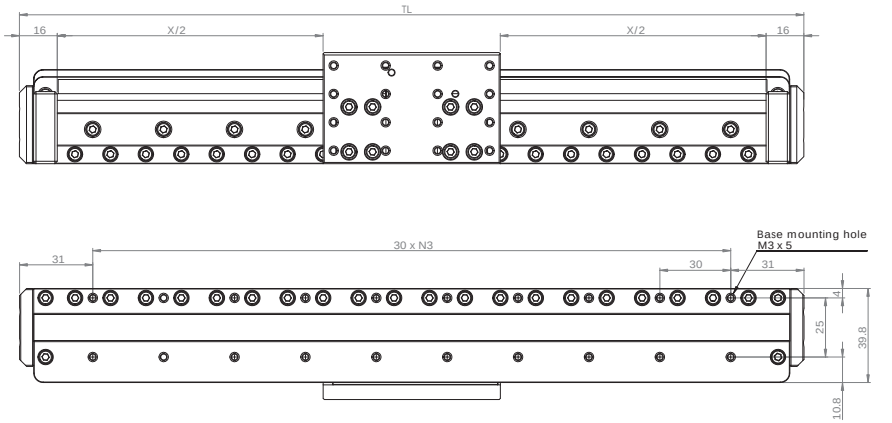
Slider Dimension



Unit: mm

Motor Model	Slider Length (L)	A	P1	N1	B	P2	N2	C	D
PM4	75	4.5	22	3	4.5	22	3	10	15
PM6	105	7.5	30	3	7.5	30	3	8	17

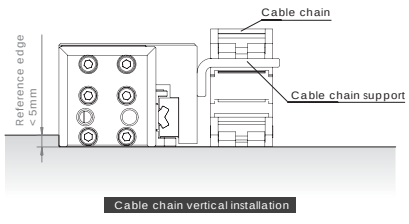
Mounting Dimension



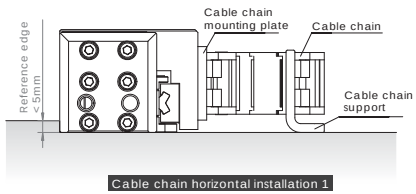
Unit: mm

Motor Model	Total Length (TL)	Effective Travel (X)	N3
PM4	152	45	3
	332	225	9
	512	405	15
PM6	152	15	3
	332	195	9
	512	375	15

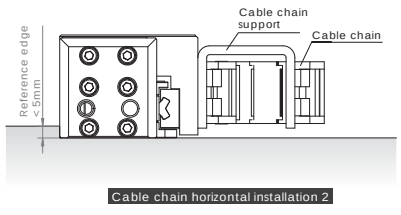
Usage Suggestion



Cable chain vertical installation



Cable chain horizontal installation 1



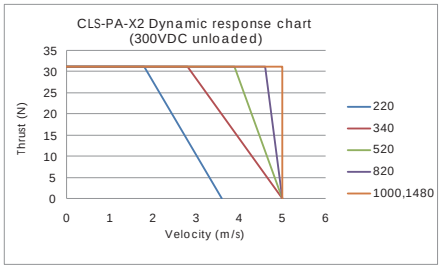
Cable chain horizontal installation 2

CLS-PAX Module Parameters

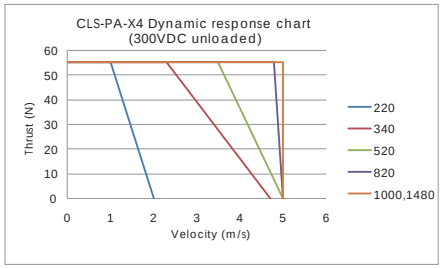
CLS		PA-X2						PA-X4					
Motor parameters													
Continuous Force (N)		31						55					
Peak Force (N)		123.8						220.2					
Continuous Current (Apeak)		3.6						3.2					
Peak Current (Apeak)		14.4						12.8					
Force Constant (N/Apeak)		8.6						17.2					
Back EMF constant (VL-L/m/s)		10						20					
Resistance (Ohms)		4.3						8.5					
Inductance (mH)		0.83						1.65					
Magnetic Pole Pitch (mm)		30						30					
Stage parameters													
Total Length (mm)		220	340	520	820	1000	1480	220	340	520	820	1000	1480
Effective Travel (mm)		90	210	390	690	870	1350	30	150	330	630	810	1290
Slider Mass (kg)(1)		0.5						0.8					
Module Weight(kg)(1)		2.1	2.9	3.9	5.7	7.5	16.2	2.4	3.2	4.2	6	7.8	16.5
Linear Guide Rated Load and Static Moment													
Model Code		MR12WN						MR12WL					
Block quantity		2						2					
Load Capacity (KN)	C (dyn)	6.1						8.1					
	Co (stat)	10.4						15.6					
Static Moment (Nm)	Mro(Nm)	127						191					
	Mpo(Nm)	124						341					
	Myo(Nm)	124						341					

(1) Moving Load refers to mass before addition of payload mass. This includes the slider platform, motor forcer, linear guide, cabling, optical encoder read head etc. For the Connector type termination option it is 0.12kg.

Dynamic Characteristics

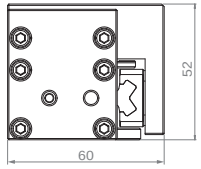


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact **cpc**

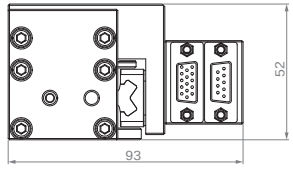


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact **cpc**

Assembly Dimensions



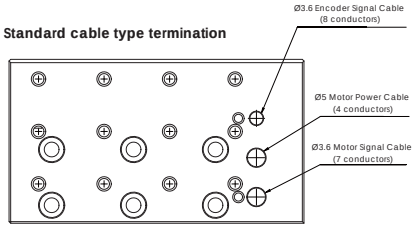
Standard cable type termination



Connector type termination

Wiring Definition

Standard cable type termination

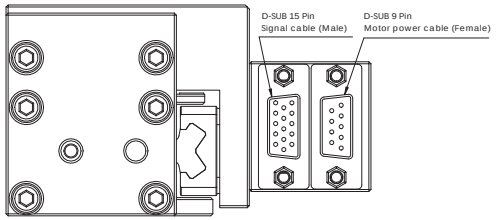


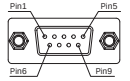
OUTPUT CABLE

Motor Wire Table		Hall Sensor Wire Table and Thermal Protection Wire Table			
Color	Function	Color	Function	Color	Function
White	phase U	Pink	Hall A U phase	Brown	Thermal sensor
Yellow	phase V	Yellow	Hall B V phase	Blue	
Brown	phase W	Green	Hall C W phase		
Green	PE	Grey	Hall IC + 5V		
		White	GND		

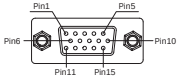
Encoder Signal connections	
Color	Function
Black	GND
Brown	Index-
Blue	B-
Yellow	A-
Red	5V
Orange	Index+
Purple	B+
Green	A+

Connector type termination





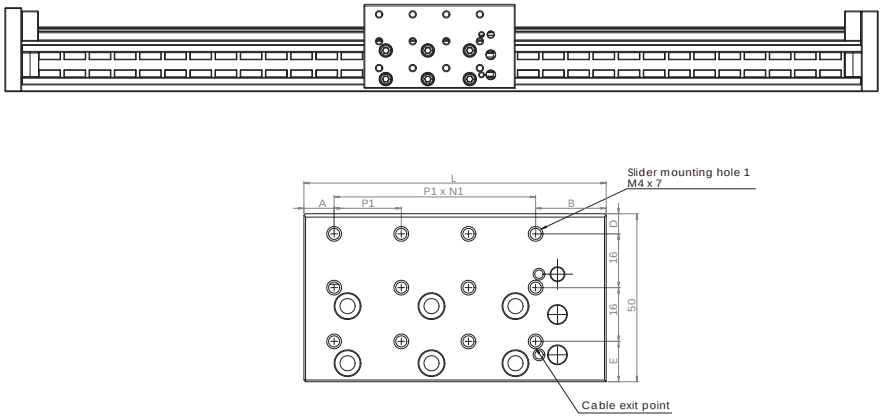
Power cable pin out	
Pin No.	Function
1	U
2	
6	
3	V
7	
8	
4	W
5	
9	
Frame	Isolation & GND



Signal cable pin out	
Pin No.	Function
1	GND
2	Index-
3	B-
4	A-
5	5V
6	Index+
7	B+
8	A+
9	Hall A U phase
10	Hall B V phase

Signal cable pin out	
Pin No.	Function
11	Hall C W phase
12	Hall IC + 5V
13	Hall GND
14	Thermal sensor
15	Thermal sensor
Frame	Isolation

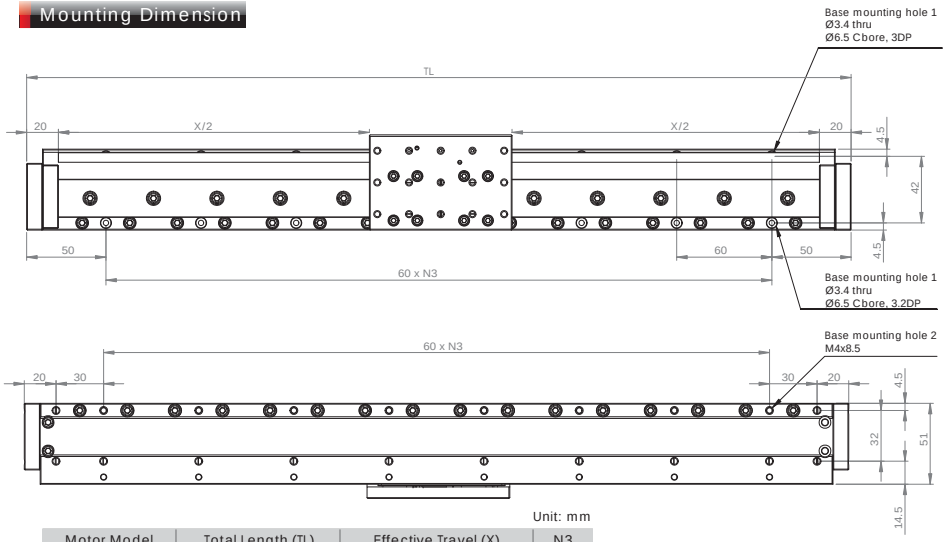
Slider Dimension



Unit: mm

Motor Model	Slider Length (L)	A	B	P1	N1	C	P2	N2	D	E
PA-X2	90	9	21	20	3	5	20	4	6	12
PA-X4	150	9	21	35	3	5	35	4	6	12

Mounting Dimension

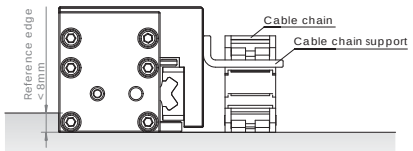


Unit: mm

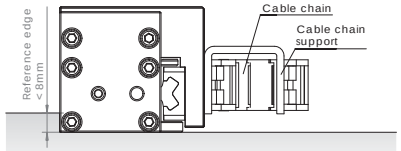
Motor Model	Total Length (TL)	Effective Travel (X)	N3
PA-X2	220	90	2
	340	210	4
	520	390	7
	820	690	12
	1000	870	15
	1480	1350	23
PA-X4	220	30	2
	340	150	4
	520	330	7
	820	630	12
	1000	810	15
	1480	1290	23

Usage Suggestion

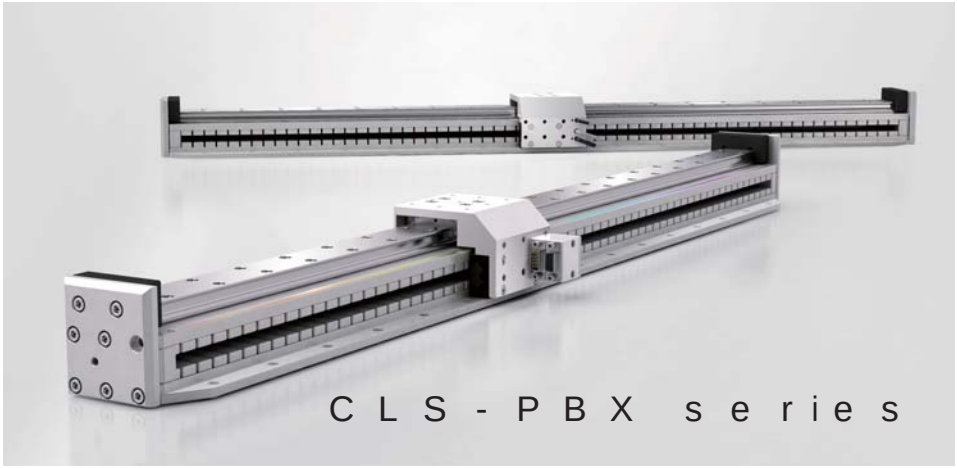
Cable chain horizontal installation 1



Cable chain vertical installation



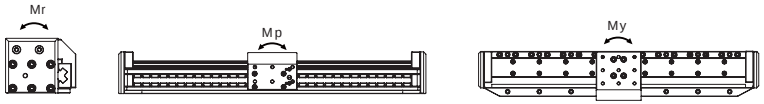
Cable chain horizontal installation 2



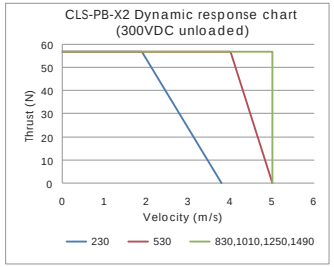
CLS-PBX Module Parameters

CLS		PB-X2						PB-X4						PB-X6					
Motor parameters																			
Continuous Force (N)		56.8						107.8						153.3					
Peak Force (N)		227						431.4						613					
Continuous Current (Apeak)		4						3.8						3.6					
Peak Current (Apeak)		16						15.2						14.4					
Force Constant (N/Apeak)		14.2						28.4						42.6					
Back EMF constant (VL-L/m/s)		16.5						33						49.5					
Resistance (Ohms)		4.1						8.3						12.4					
Inductance (mH)		1.44						2.87						4.31					
Magnetic Pole Pitch (mm)		30						30						30					
Stage parameters																			
Total Length (mm)		230	530	830	1010	1250	1490	230	530	830	1010	1250	1490	530	830	1010	1250	1490	
Effective Travel (mm)		95	395	695	875	1115	1355	35	335	635	815	1055	1295	275	575	755	995	1235	
Slider Mass (kg)(1)		0.7						1						1.3					
Module Weight(kg)(1)		3.7	8.5	13.3	16.2	20	23.9	4	8.8	13.6	16.5	20.3	24.2	9.4	14.2	17.1	20.9	24.8	
Linear Guide Rated Load and Static Moment																			
Model Code		WRC21/15MN						WRC21/15MN						WRC21/15MN					
Block quantity		1						2						2					
Load Capacity (KN)	C (dyn)	9.9						19.8						19.8					
	Co (stat)	17.5						35.5						35.5					
Static Moment (Nm)	Mro(Nm)	315						630						630					
	Mpo(Nm)	105						670						1078					
	Myo(Nm)	105						670						1078					

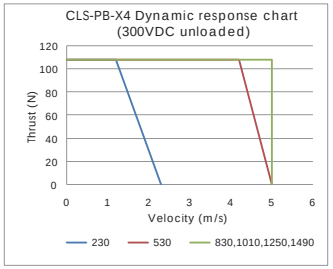
(1) Moving Load refers to mass before addition of payload mass. This includes the slider platform, motor forcer, linear guide, cabling, optical encoder read head etc. For the Connector type termination option it is 0.12kg.



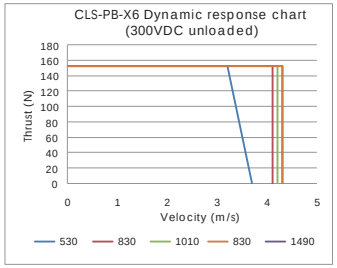
Dynamic Characteristics



The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact cpc

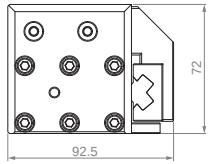


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact cpc

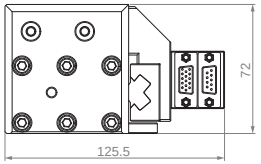


The chart is made with maximum velocity set to 5m/s, for higher velocity or special requirements, contact cpc

Assembly Dimensions



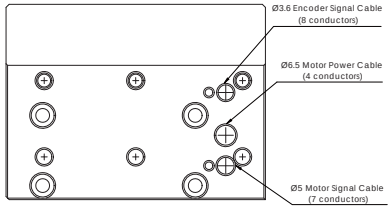
Standard cable type termination



Connector type termination

Wiring Definition

Standard cable type termination

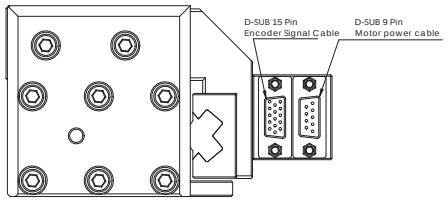


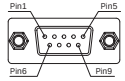
OUTPUT CABLE

Motor Wire Table		Hall Sensor Wire Table and Thermal Protection Wire Table			
Color	Function	Color	Function	Color	Function
White	phase U	Pink	Hall A U phase	Brown	Thermal sensor
Yellow	phase V	Yellow	Hall B V phase	Blue	
Brown	phase W	Green	Hall C W phase		
Green	PE	Grey	Hall IC + 5V		
		White	GND		

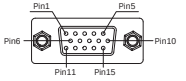
Encoder Signal connections	
Color	Function
Black	GND
Brown	Index-
Blue	B-
Yellow	A-
Red	5V
Orange	Index+
Purple	B+
Green	A+

Connector type termination





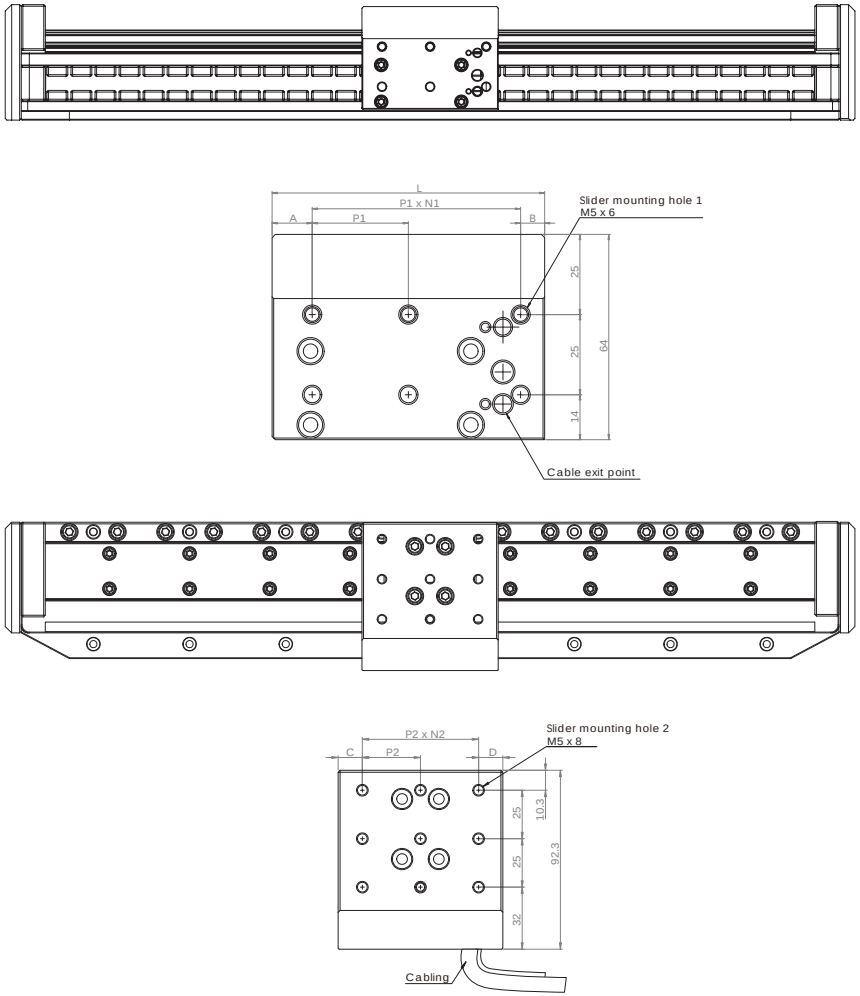
Power cable pin out	
Pin No.	Function
1	U
2	
6	
3	V
7	
8	
4	W
5	
9	
Frame	Isolation & GND



Signal cable pin out	
Pin No.	Function
1	GND
2	Index-
3	B-
4	A-
5	5V
6	Index+
7	B+
8	A+
9	Hall A U phase
10	Hall B V phase

Signal cable pin out	
Pin No.	Function
11	Hall C W phase
12	Hall IC + 5V
13	Hall GND
14	Thermal sensor
15	Thermal sensor
Frame	Isolation

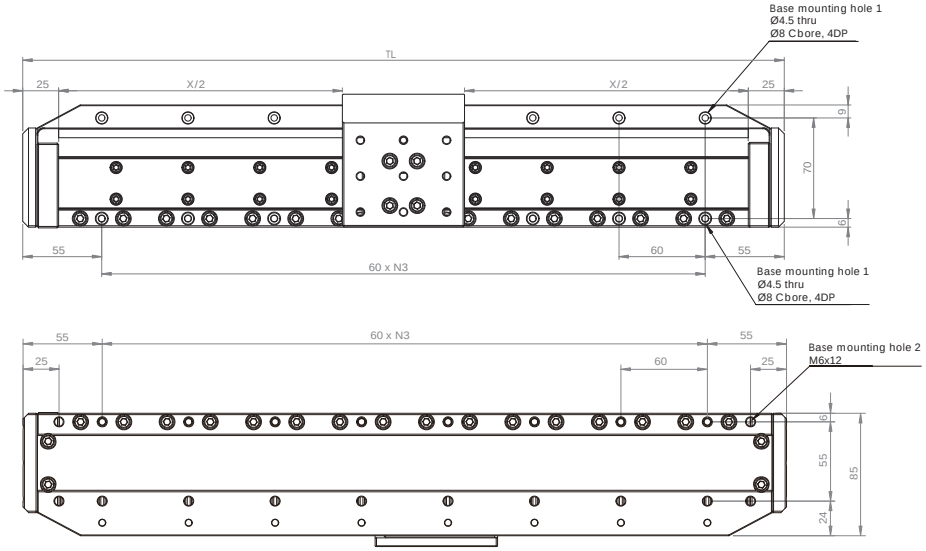
Slider Dimension



Unit: mm

Motor Model	Slider Length (L)	A	B	P1	N1	C	D	P2	N2
PB-X2	85	7.5	7.5	35	2	12.5	12.5	30	3
PB-X4	145	5	5	45	3	12.5	12.5	40	3
PB-X6	205	13	32	40	4	13	32	40	4

Mounting Dimension



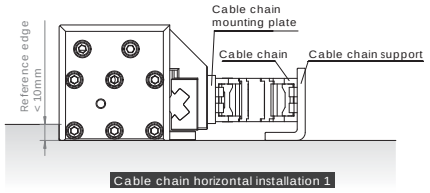
Unit: mm

Motor Model	Total Length (TL)	Effective Travel (X)	N3
PB-X2	230	95	2
	530	395	7
	830	695	12
	1010	875	15
	1250	1115	19
	1490	1355	23
PB-X4	230	35	3
	530	335	7
	830	635	12
	1010	815	15
	1250	1055	19
	1490	1295	23

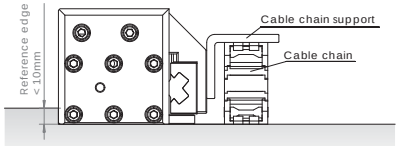
Unit: mm

Motor Model	Total Length (TL)	Effective Travel (X)	N3
PB-X6	530	275	7
	830	575	12
	1010	755	15
	1250	995	19
	1490	1235	23

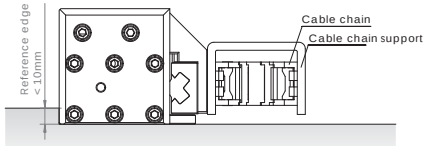
Usage Suggestion



Cable chain horizontal installation 1

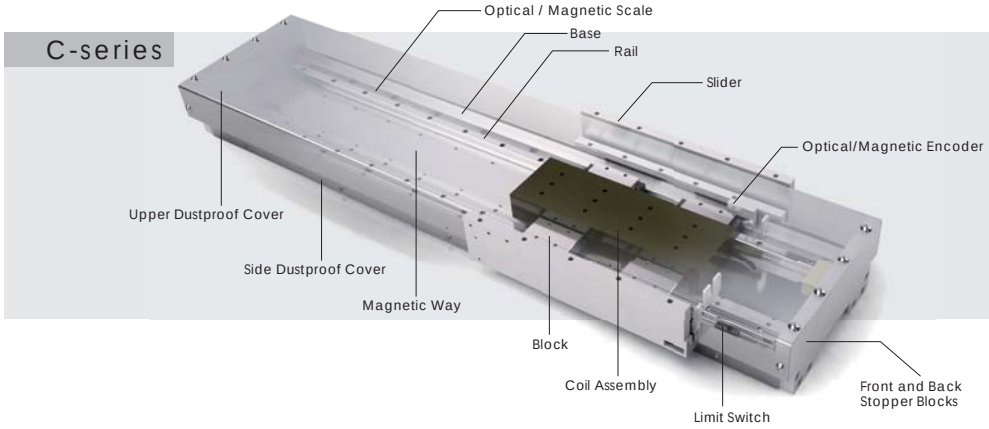


Cable chain vertical installation

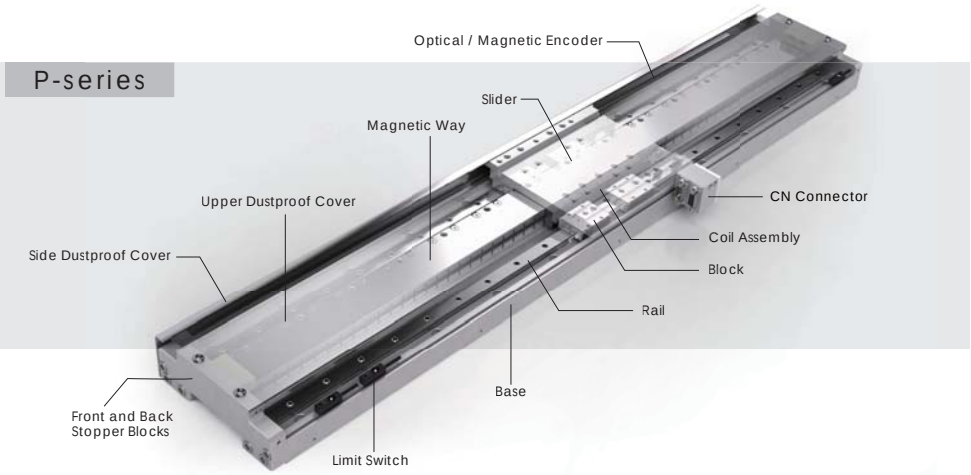


Cable chain horizontal installation 2

C-series



P-series



Direct drive can significantly improve productivity, yield, and dynamic motion performance for the industry. cpc's CLMS is a precision positioning platform composed of high load linear guide, high efficiency linear motor, and position feedback encoder that will make linear motor easy to use; therefore replacing belt and ballscrew linear systems.

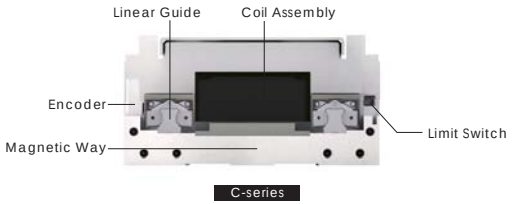
Features

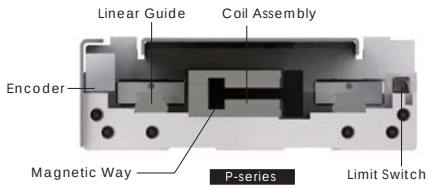
1 Exceptional dustproof design

CLMS has special structural design to make the whole module dustproof. In adverse working environments, the module will perform well while there will not be any structural issue caused by bellows.

2 Exceptional compact design

CLMS has optimized the allocated space for linear motor, linear guide, and optical (magnetic) encoder to minimize the size under thrust.





3 High reliability

CLMS's encoder is installed horizontally, thus prevents its position to be affected by external impact and retains system precision.

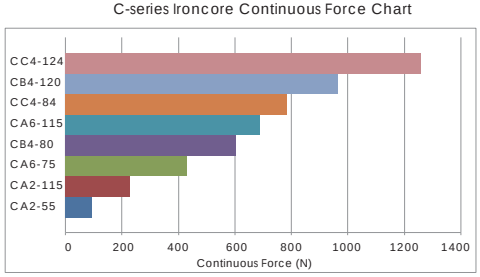
4 High velocity and acceleration

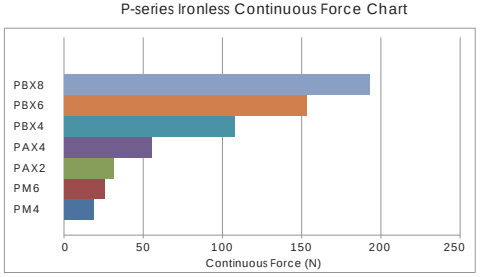
Under AC 230V, CLMS could reach highest velocity of 6m/s and an acceleration of 60m/s^2. Module with effective travel length of above 2m is available.

5 Customization

Standard CLMS comes with magnetic encoder for position feedback. We can also install optical encoder based on customer's need for precision while retaining the same dimensions. Other customized designs such as multi-slider, X-Y and gantry systems are available as well.

6 Continuous force





Accuracy C-series

Model	Maximum effective travel(mm)	Repeatability(μm)*1,2		Straightness(mm)*1
		Magnetic scale	Optical scale	
CLMS-CA2-55/115	190	3	2	0.03
	310			
	430			
	550			
	670			
	790			
	910			
	1030			
	1150			
	1270			0.04
CLMS-CA6-75/115	170	3	2	0.03
	290			
	410			
	530			
	650			
	770			
	890			
	1010			
	1130			
	1250			0.04
CLMS-CB4-80/120	200	3	2	0.03
	320			
	440			
	560			
	680			
	800			
	920			
	1040			
	1160			
	1280			0.04
CLMS-CC4-84/124	210	3	2	0.03
	320			
	430			
	540			
	650			
	760			
	870			
	980			
	1090			
	1200			0.04

Accuracy P-series

Model	Maximum effective travel (mm)	Repeatability (μm)*1,2		Straightness (mm)*1	Model	Maximum effective travel (mm)	Repeatability (μm)*1,2		Straightness (mm)*1
		Magnetic scale	Optical scale				Magnetic scale	Optical scale	
CLMS-PM4	225	3	2	0.03	CLMS-PB-X4	125	3	2	0.03
						305			
						420			
	405					545			
						665			
						785			
	525					905			
						1025			
						1145			0.04
						1265			
CLMS-PM6	195	3	2	0.03	CLMS-PB-X6	245	3	2	0.03
						365			
						485			
	375					605			
						725			
						845			
	495					965			
						1085			
						1210			0.04
						1325			
CLMS-PA-X2	180	3	2	0.03	CLMS-PB-X8	185	3	2	0.03
	360					305			
	480					425			
	600					545			
	720					665			
	840					785			
	960					905			
	1080					1025			
	1200			0.04		1145			0.04
	1320					1265			
CLMS-PA-X4	130	3	2	0.03					
	310								
	430								
	550								
	670								
	790								
	910								
	1030								
	1150								
	1270			0.04					

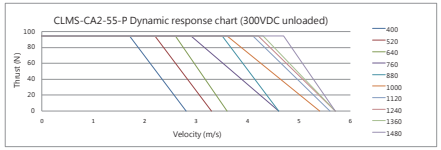
*1. This is the standard value of the aluminum base fixed on a 0.01/300mm platform. We can reach higher specification by changing the method and material based oncustomer's actual requirements.

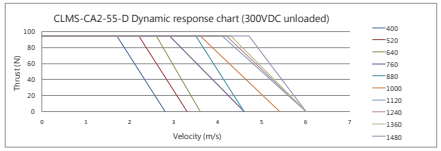
*2. This value is the result from encoder head with 1μm resolution. System accuracy can be elevated according to customer's requirements of 0.5, 0.2, and 0.1μm resolution.

Module Parameters C-series

CLMS-CA2-55

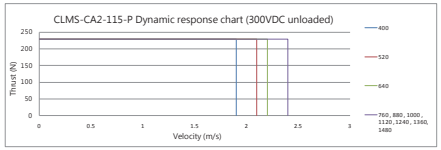
CLMS	CA2-55	
	P	D
Module Parameters		
Continuous Force (N)	94.2	
Peak Force (N)	242.1	
Continuous Current (Apeak)	3.5	7
Peak Current (Apeak)	15	28
Force Constant (N/Apeak)	26.9	13.5
Back EMF Constant (VL-L/m/s)	33.7	16.9
Resistance (Ohms)	5.4	14
Inductance (mH)	25	6.25
Magnetic Pole Pitch (mm)	20	
Standard Slider Mass (kg)	2.6	
Sealed Slider Mass (kg)	4	

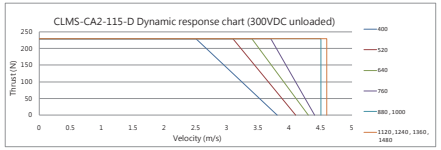




CLMS-CA2-115

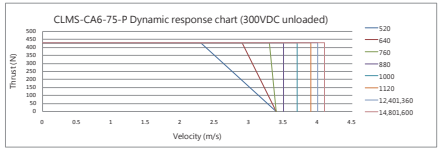
CLMS	CA2-115	
	P	D
Module Parameters		
Continuous Force (N)	229	
Peak Force (N)	588.8	
Continuous Current (Apeak)	3.3	6.7
Peak Current (Apeak)	14.3	27.5
Force Constant (N/Apeak)	68.9	34.4
Back EMF Constant (VL-L/m/s)	86.3	43.1
Resistance (Ohms)	11.3	2.8
Inductance (mH)	52.31	13.08
Magnetic Pole Pitch (mm)	20	
Standard Slider Mass (kg)	3.7	
Sealed Slider Mass (kg)	4.8	

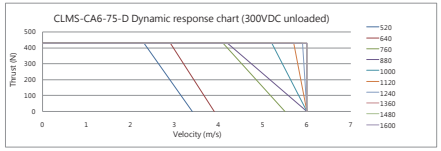




CLMS-CA6-75

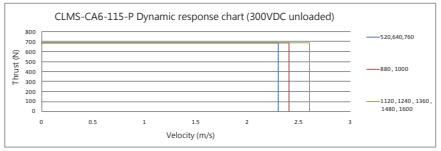
CLMS	CA6-75	
	P	D
Module Parameters		
Continuous Force (N)	429.3	
Peak Force (N)	1104	
Continuous Current (Apeak)	10.5	21
Peak Current (Apeak)	45	60
Force Constant (N/Apeak)	40.9	20.4
Back EMF Constant (VL-L/m/s)	51.2	25.6
Resistance (Ohms)	2.5	0.6
Inductance (mH)	11.4	2.9
Magnetic Pole Pitch (mm)	20	
Standard Slider Mass (kg)	5.6	
Sealed Slider Mass (kg)	7.8	

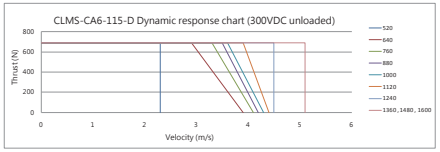




CLMS-CA6-115

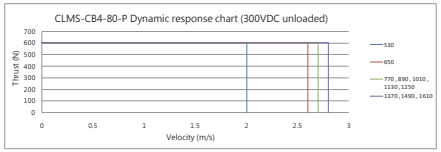
CLMS	CA6-115	
	P	D
Module Parameters		
Continuous Force (N)	686.9	
Peak Force (N)	1766.4	
Continuous Current (Apeak)	10	20
Peak Current (Apeak)	42.8	85.5
Force Constant (N/Apeak)	68.9	34.4
Back EMF Constant (VL-L/m/s)	86.3	43.1
Resistance (Ohms)	3.8	0.9
Inductance (mH)	17.4	4.4
Magnetic Pole Pitch (mm)	20	
Standard Slider Mass (kg)	8.1	
Sealed Slider Mass (kg)	10.4	

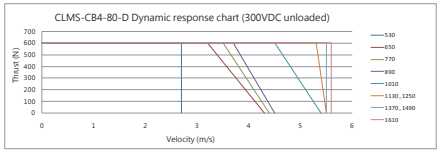




CLMS-CB4-80

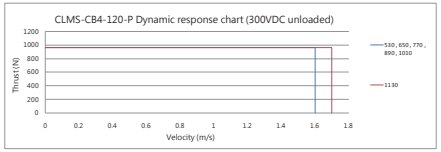
CLMS	CB4-80	
	P	D
Module Parameters		
Continuous Force (N)	602.6	
Peak Force (N)	1174.3	
Continuous Current (Apeak)	8.4	16.8
Peak Current (Apeak)	29.8	59.5
Force Constant (N/Apeak)	71.7	35.9
Back EMF Constant (VL-L/m/s)	79	39.5
Resistance (Ohms)	3.3	0.8
Inductance (mH)	34.38	8.59
Magnetic Pole Pitch (mm)	30	
Standard Slider Mass (kg)	8.8	
Sealed Slider Mass (kg)	10.6	

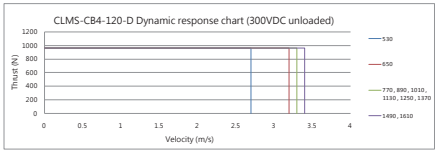




CLMS-CB4-120

CLMS	CB4-120	
	P	D
Module Parameters		
Continuous Force (N)	964.2	
Peak Force (N)	1878.9	
Continuous Current (Apeak)	8	16
Peak Current (Apeak)	29.8	59.5
Force Constant (N/Apeak)	120.8	60.4
Back EMF Constant (VL-L/m/s)	133.1	66.6
Resistance (Ohms)	4.95	1.24
Inductance (mH)	51.56	12.89
Magnetic Pole Pitch (mm)	30	
Standard Slider Mass (kg)	12.8	
Sealed Slider Mass (kg)	14.6	

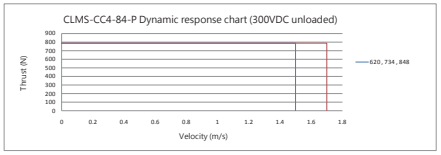


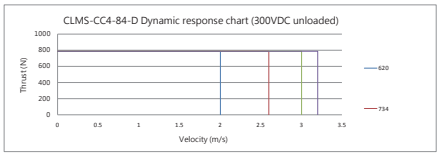


Module Parameters C-series

CLMS-CC4-84

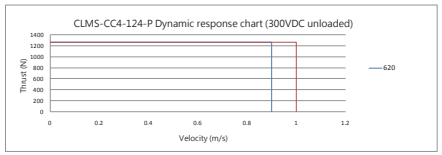
CLMS	CC4-84	
	P	D
Module Parameters		
Continuous Force (N)	785.6	
Peak Force (N)	1760.1	
Continuous Current (Apeak)	7.2	14.4
Peak Current (Apeak)	29.8	57.6
Force Constant (N/Apeak)	109.1	54.6
Back EMF Constant (VL-L/m/s)	133.1	66.5
Resistance (Ohms)	5.1	1.3
Inductance (mH)	7.8	1.95
Magnetic Pole Pitch (mm)	38	
Standard Slider Mass (kg)	10.9	
Sealed Slider Mass (kg)	13.3	

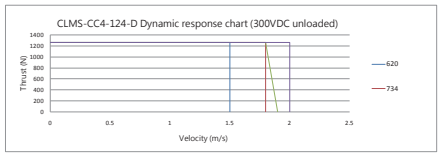




CLMS-CC4-124

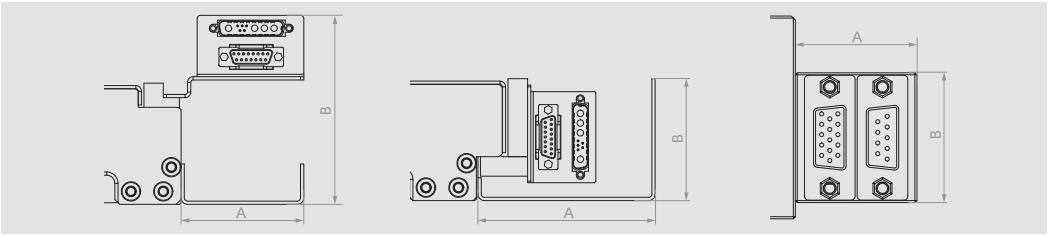
CLMS	CC4-124	
	P	D
Module Parameters		
Continuous Force (N)	1257.2	
Peak Force (N)	2816.2	
Continuous Current (Apeak)	6.8	13.7
Peak Current (Apeak)	27.4	54.7
Force Constant (N/Apeak)	183.8	91.9
Back EMF Constant (VL-L/m/s)	224	112
Resistance (Ohms)	7.5	1.9
Inductance (mH)	114.6	28.7
Magnetic Pole Pitch (mm)	38	
Standard Slider Mass (kg)	14.5	
Sealed Slider Mass (kg)	16.9	





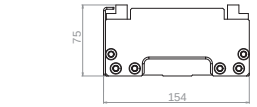
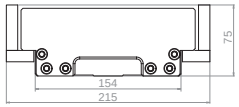
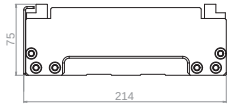
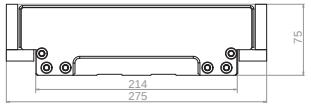
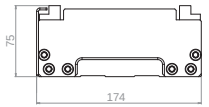
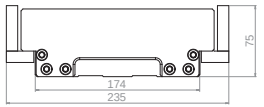
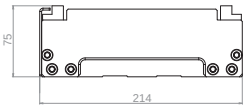
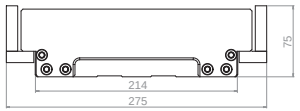
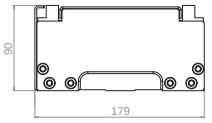
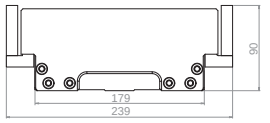
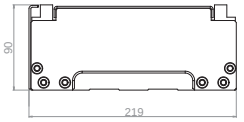
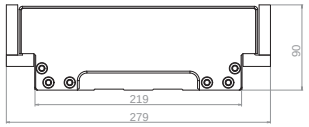
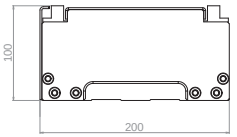
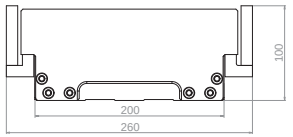
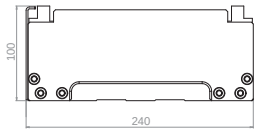
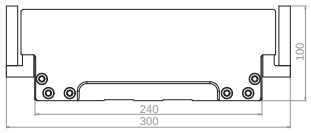
Accessory Options

* Size A, B and direction can be assigned by customer.

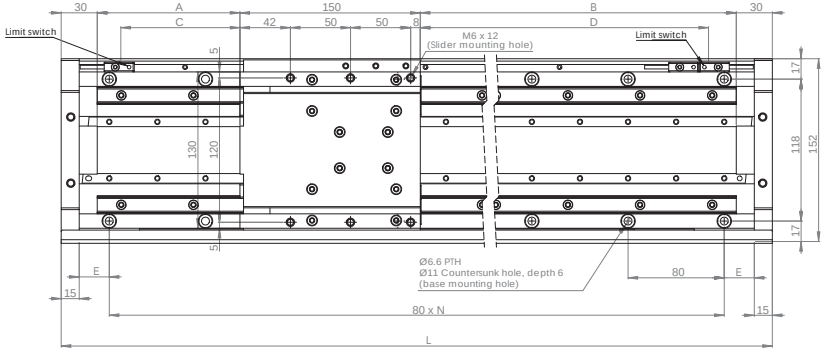


V-Standard Cable Chain | H-Side Cable Chain | CN Connector Type

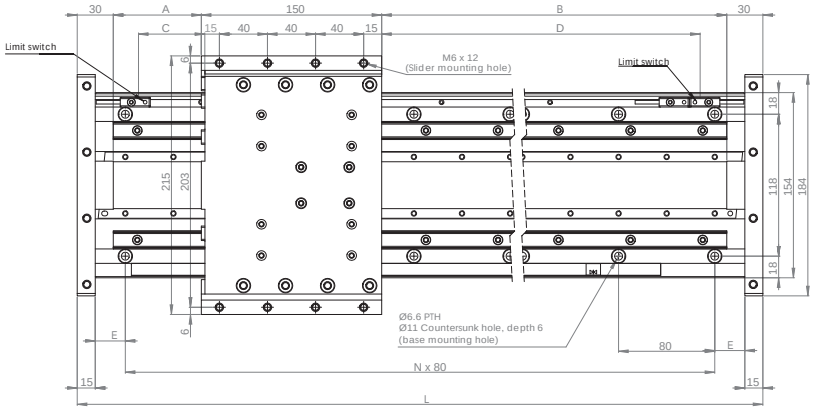
Assembly Dimensions C-series

Standard		Sealed
	CA2-55 (Catalogue P23)	
	CA2-115 (Catalogue P24)	
	CA6-75 (Catalogue P25)	
	CA6-115 (Catalogue P26)	
	CB4-80 (Catalogue P27)	
	CB4-120 (Catalogue P28)	
	CC4-84 (Catalogue P29)	
	CC4-124 (Catalogue P30)	

Mounting Dimensions CLMS-CA2-55



Standard



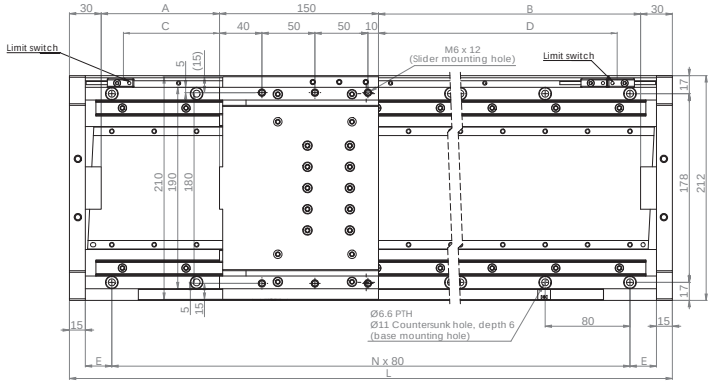
Sealed

Standard Specifications

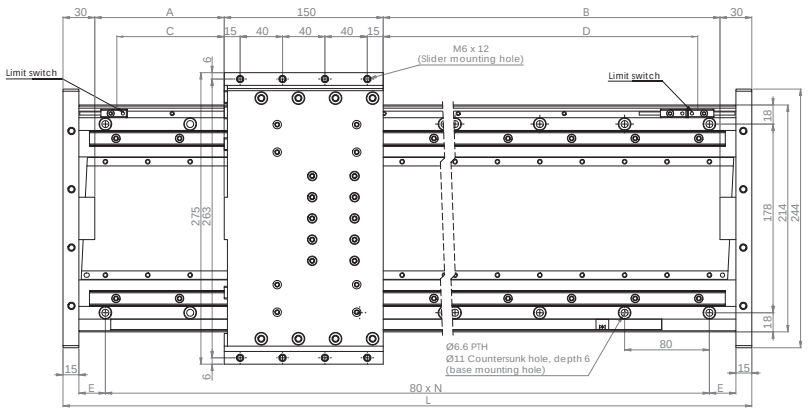
Unit：mm

Total Length (L)	400	520	640	760	880	1000	1120	1240	1360	1480
Maximum Effective Travel (A+B)	190	310	430	550	670	790	910	1030	1150	1270
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	25	45	25	45	25	45	25	45	25	45
N	4	5	7	8	10	11	13	14	16	17
Standard Module Weight (kg)	9.7	11.7	13.8	16	18.1	20.2	22.3	24.4	26.6	28.7
Sealed Module Weight (kg)	12.2	14.8	17.3	19.9	22.5	25	27.6	30.2	32.7	35.3

Mounting Dimensions CLMS-CA2-115



Standard



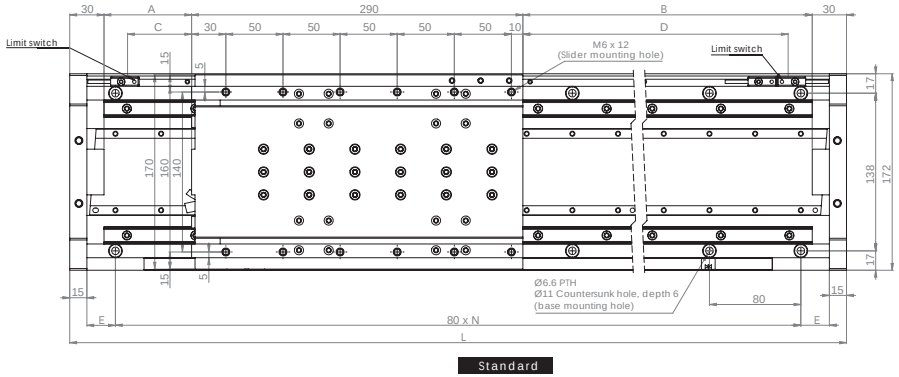
Sealed

Standard Specifications

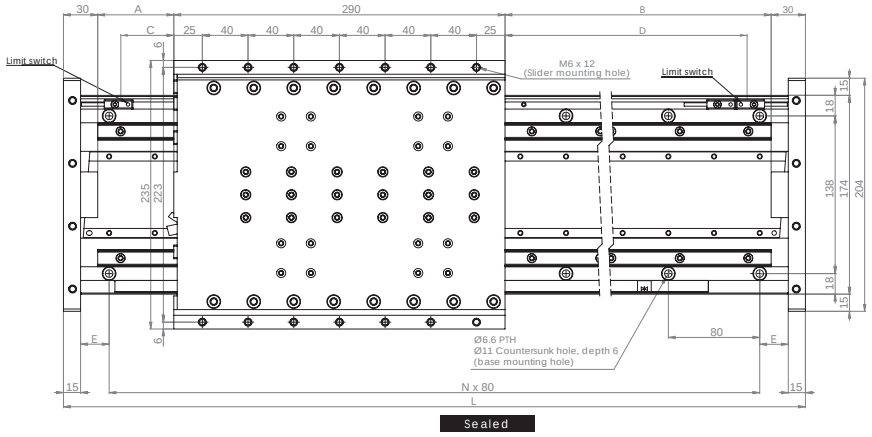
Unit：mm

Total Length (L)	400	520	640	760	880	1000	1120	1240	1360	1480
Maximum Effective Travel (A+B)	190	310	430	550	670	790	910	1030	1150	1270
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	25	45	25	45	25	45	25	45	25	45
N	4	5	7	8	10	11	13	14	16	17
Standard Module Weight (kg)	14.3	17.5	20.7	23.9	27.2	30.3	33.5	36.7	39.9	43.1
Sealed Module Weight (kg)	16.5	20.1	23.7	27.3	30.9	34.5	38.1	41.7	45.3	48.8

Mounting Dimensions CLMS-CA6-75



Standard



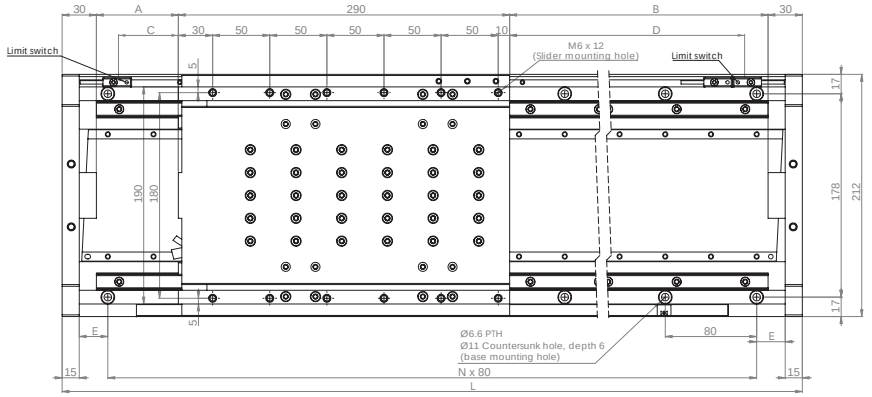
Sealed

Standard Specifications

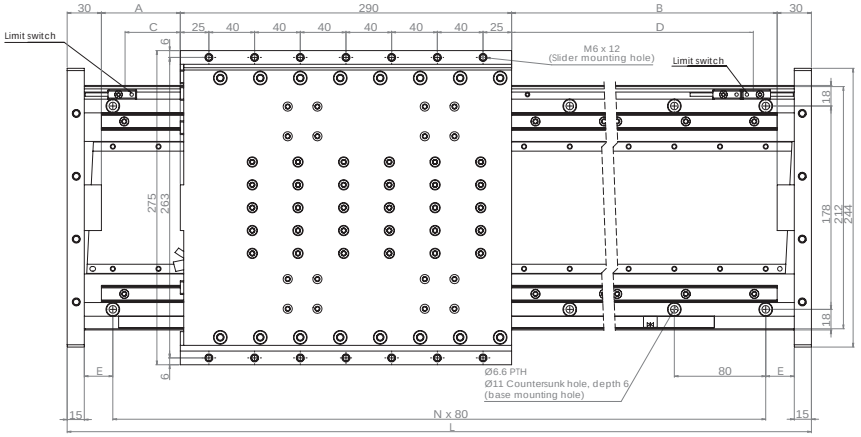
Unit：mm

Total Length (L)	520	640	760	880	1000	1120	1240	1360	1480	1600
Maximum Effective Travel (A+B)	170	290	410	530	650	770	890	1010	1130	1250
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	45	25	45	25	45	25	45	25	45	25
N	5	7	8	10	11	13	14	16	17	19
Standard Module Weight (kg)	14.1	16.3	18.4	20.6	22.7	24.8	27	29.1	31.2	34.2
Sealed Module Weight (kg)	20.4	23.3	26.2	29.1	32	34.9	37.8	40.7	43.6	46.6

Mounting Dimensions CLMS-CA6-115



Standard



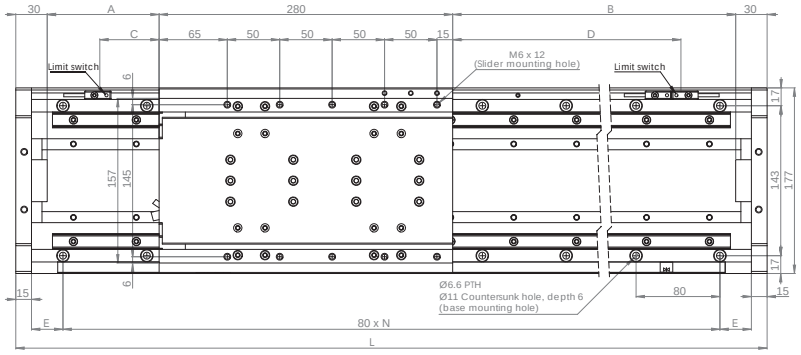
Sealed

Standard Specifications

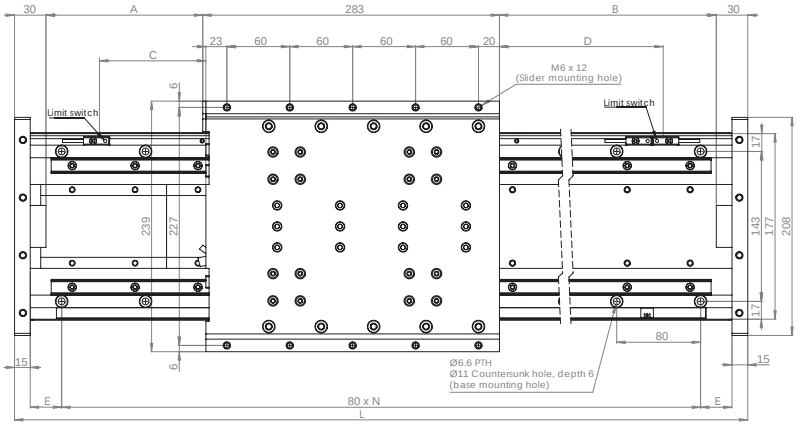
Unit：mm

Total Length (L)	520	640	760	880	1000	1120	1240	1360	1480	1600
Maximum Effective Travel (A+B)	170	290	410	530	650	770	890	1010	1130	1250
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	25	45	25	45	25	45	25	45	25	45
N	5	7	8	10	11	12	14	16	17	19
Standard Module Weight (kg)	22.2	25.4	28.7	32	35.2	38.5	41.7	45	48.2	51.5
Sealed Module Weight (kg)	23.7	27.3	31	34.6	38.3	41.9	45.6	49.2	52.9	56.5

Mounting Dimensions CLMS-CB4-80



Standard



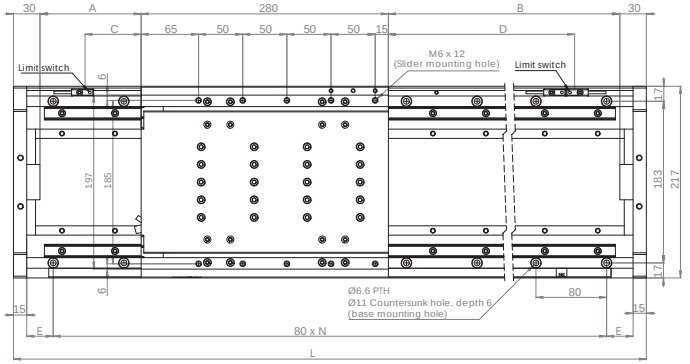
Sealed

Standard Specifications

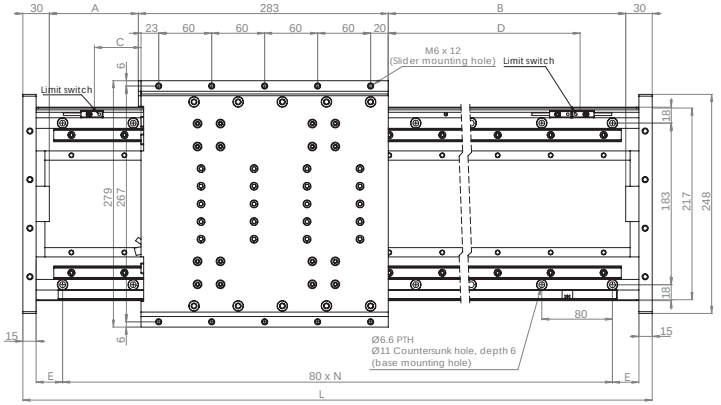
Unit：mm

Total Length (L)	530	650	770	890	1010	1130	1250	1370	1490	1610
Maximum Effective Travel (A+B)	200	320	440	560	680	800	920	1040	1160	1280
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	10	30	10	30	10	30	10	30	10	30
N	6	7	9	10	12	13	15	16	18	19
Standard Module Weight (kg)	18.4	21.6	24.8	28	31.2	34.4	37.6	40.8	44	47.2
Sealed Module Weight (kg)	23.2	26.1	29.3	32.5	35.7	38.9	42.1	45.3	48.5	51.7

Mounting Dimensions CLMS-CB4-120



Standard



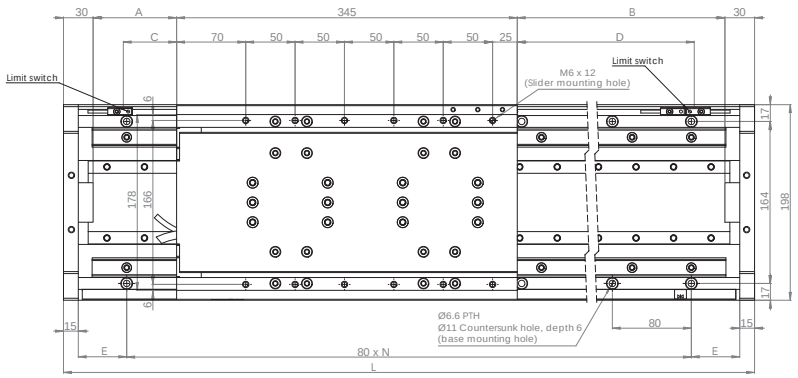
Sealed

Standard Specifications

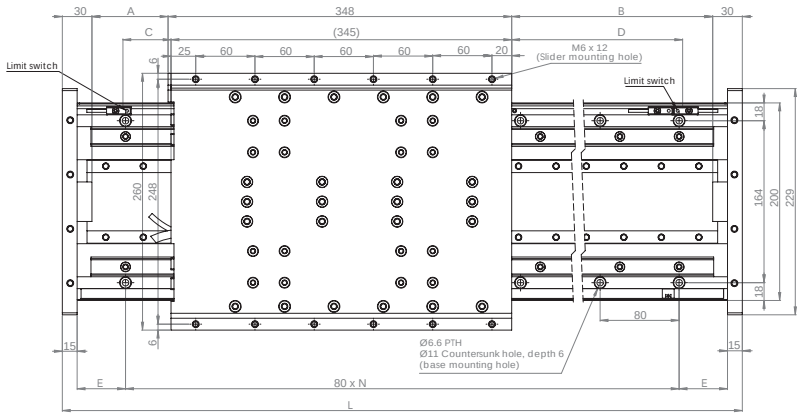
Unit：mm

Total Length (L)	530	650	770	890	1010	1130	1250	1370	1490	1610
Maximum Effective Travel (A+B)	200	320	440	560	680	800	920	1040	1160	1280
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	10	30	10	30	10	30	10	30	10	30
N	6	7	9	10	12	13	15	16	18	19
Standard Module Weight (kg)	23.7	28.2	32.7	37.2	41.7	46.2	50.7	55.2	59.7	64.2
Sealed Module Weight (kg)	29.7	34.2	38.7	43.2	47.7	52.2	56.7	61.2	65.7	70.2

Mounting Dimensions CLMS-CC4-84



Standard



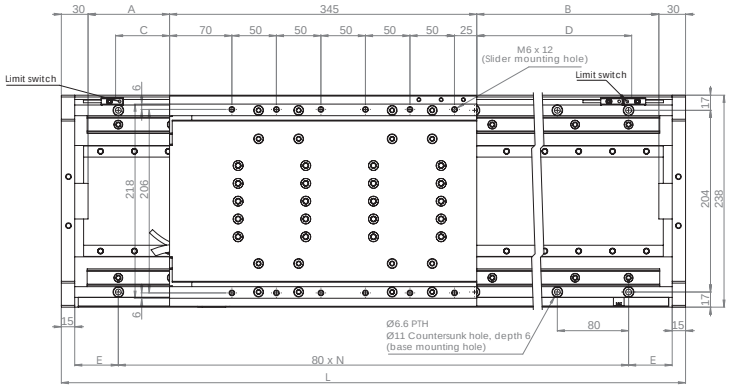
Sealed

Standard Specifications

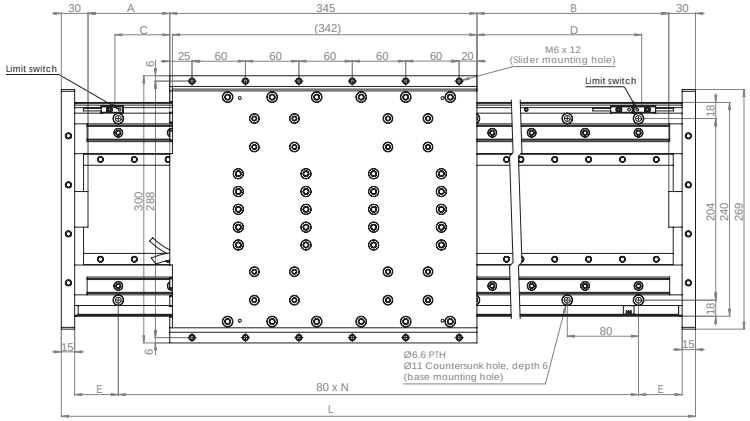
Unit：mm

Total Length (L)	620	734	848	962	1076	1190	1304	1418	1532	1646
Maximum Effective Travel (A+B)	210	320	430	540	650	760	870	980	1090	1200
Standard Travel (C+D)	150	260	370	490	590	700	810	920	1030	1140
Edge Distance of Base Mounting Hole (E)	15	32	49	26	43	20	37	14	31	8
N	7	8	9	11	12	14	15	17	18	20
Standard Module Weight (kg)	27.8	31.8	35.8	39.8	43.8	47.8	51.8	55.8	59.8	63.8
Sealed Module Weight (kg)	32.9	36.9	40.9	44.9	48.9	52.9	56.9	60.9	64.9	68.9

Mounting Dimensions CLMS-CC4-124



Standard



Sealed

Standard Specifications

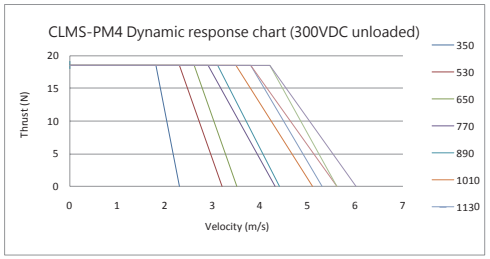
Unit：mm

Total Length (L)	620	734	848	962	1076	1190	1304	1418	1532	1646
Maximum Effective Travel (A+B)	210	320	430	540	650	760	870	980	1090	1200
Standard Travel (C+D)	150	260	370	480	590	700	810	920	1030	1140
Edge Distance of Base Mounting Hole (E)	15	32	49	26	43	20	37	14	31	8
N	7	8	9	11	12	14	15	17	18	20
Standard Module Weight (kg)	36	41	46	51	56	61	66	71	76	81
Sealed Module Weight (kg)	42	47	52	57	62	67	72	77	82	87

Module Parameters P-series

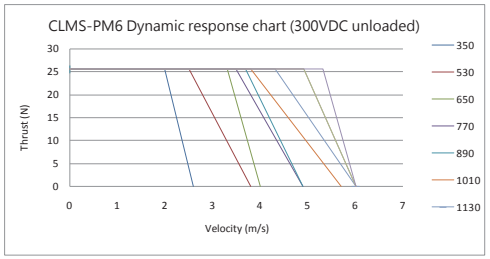
CLMS-PM4

CLMS	PM4
Module Parameters	
Continuous Force (N)	18.5
Peak Force (N)	74
Continuous Current (Apeak)	5
Peak Current (Apeak)	20
Force Constant (N/Apeak)	3.7
Back EMF Constant (VL-L/m/s)	4.3
Resistance (Ohms)	1.2
Inductance (mH)	0.04
Magnetic Pole Pitch (mm)	15
Open Slider Mass (kg)	0.5



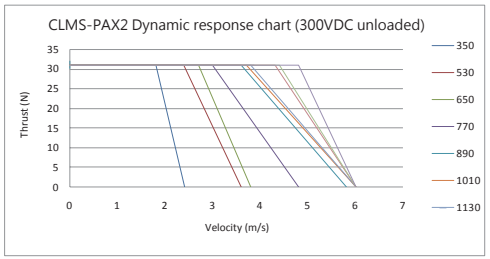
CLMS-PM6

CLMS	PM6
Module Parameters	
Continuous Force (N)	25.5
Peak Force (N)	102.1
Continuous Current (Apeak)	4.6
Peak Current (Apeak)	18.4
Force Constant (N/Apeak)	5.5
Back EMF Constant (VL-L/m/s)	6.5
Resistance (Ohms)	1.7
Inductance (mH)	0.07
Magnetic Pole Pitch (mm)	15
Open Slider Mass (kg)	0.6



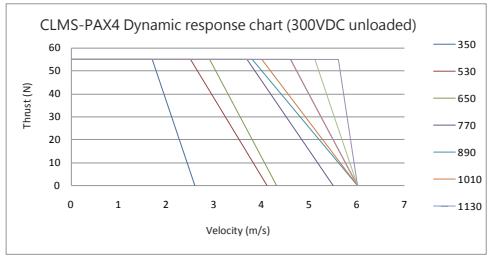
CLMS-PAX2

CLMS	PAX2
Module Parameters	
Continuous Force (N)	31
Peak Force (N)	123.8
Continuous Current (Apeak)	3.6
Peak Current (Apeak)	14.4
Force Constant (N/Apeak)	8.6
Back EMF Constant (VL-L/m/s)	10
Resistance (Ohms)	4.3
Inductance (mH)	0.83
Magnetic Pole Pitch (mm)	30
Standard Slider Mass (kg)	1
Open Slider Mass (kg)	1



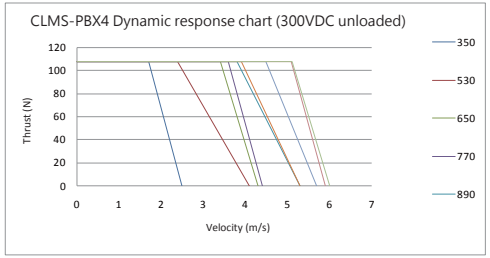
CLMS-PAX4

CLMS	PAX4
Module Parameters	
Continuous Force (N)	55
Peak Force (N)	220.2
Continuous Current (Apeak)	3.2
Peak Current (Apeak)	12.8
Force Constant (N/Apeak)	17.2
Back EMF Constant (VL-L/m/s)	20
Resistance (Ohms)	8.5
Inductance (mH)	1.65
Magnetic Pole Pitch (mm)	30
Standard Slider Mass (kg)	1.4
Open Slider Mass (kg)	1.4



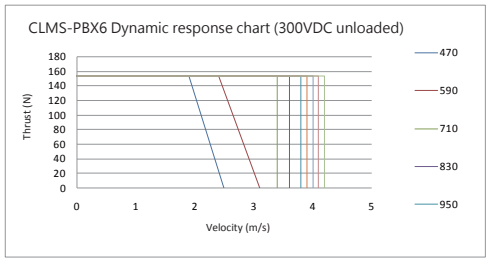
CLMS-PBX4

CLMS	PBX4
Module Parameters	
Continuous Force (N)	107.8
Peak Force (N)	431.4
Continuous Current (Apeak)	3.8
Peak Current (Apeak)	15.2
Force Constant (N/Apeak)	28.4
Back EMF Constant (VL-L/m/s)	33
Resistance (Ohms)	8.3
Inductance (mH)	2.87
Magnetic Pole Pitch (mm)	30
Standard Slider Mass (kg)	2.5
Open Slider Mass (kg)	2.5



CLMS-PBX6

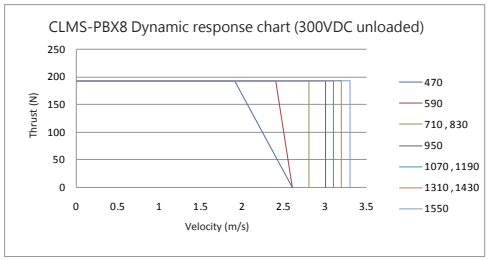
CLMS	PBX6
Module Parameters	
Continuous Force (N)	153.3
Peak Force (N)	613
Continuous Current (Apeak)	3.6
Peak Current (Apeak)	14.4
Force Constant (N/Apeak)	42.6
Back EMF Constant (VL-L/m/s)	49.5
Resistance (Ohms)	12.4
Inductance (mH)	4.31
Magnetic Pole Pitch (mm)	30
Standard Slider Mass (kg)	3.4
Open Slider Mass (kg)	3.4



Module Parameters P-series

CLMS-PBX8

CLMS	PBX8
Module Parameters	
Continuous Force (N)	193
Peak Force (N)	771.9
Continuous Current (Apeak)	3.4
Peak Current (Apeak)	13.6
Force Constant (N/Apeak)	56.8
Back EMF Constant (VL-L/m/s)	66
Resistance (Ohms)	16.5
Inductance (mH)	5.74
Magnetic Pole Pitch (mm)	30
Standard Slider Mass (kg)	4.1
Open Slider Mass (kg)	4.1

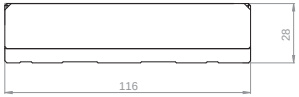


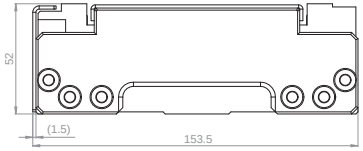
Assembly Dimensions P-series

Standard

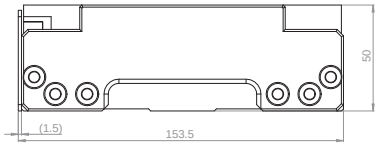
Open

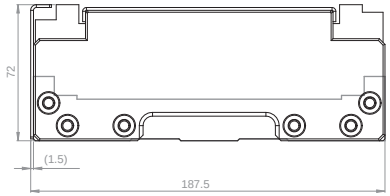
PM
(Catalogue P34)



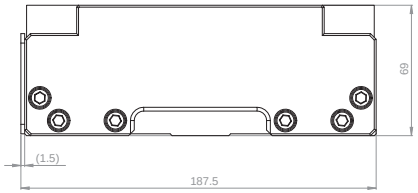


PAX
(Catalogue P35~36)

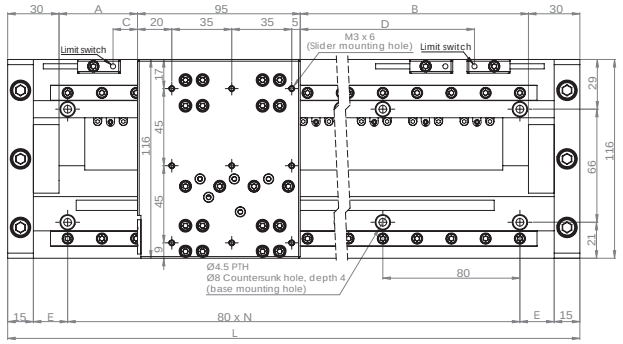




PBX
(Catalogue P37~38)



Mounting Dimensions CLMS-PM4



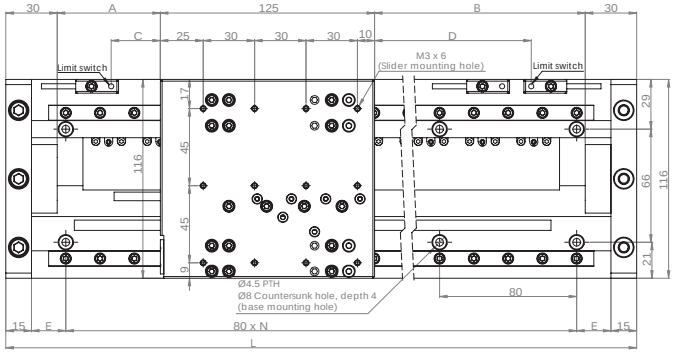
Open

Standard Specifications

Unit : mm

Total Length (L)	350	530	650
Maximum Effective Travel (A+B)	195	375	495
Standard Travel (C+D)	120	240	360
Edge Distance of Base Mounting Hole (E)	15	25	45
N	4	6	7
Open Module Weight (kg)	2.6	3.2	3.8

Mounting Dimensions CLMS-PM6



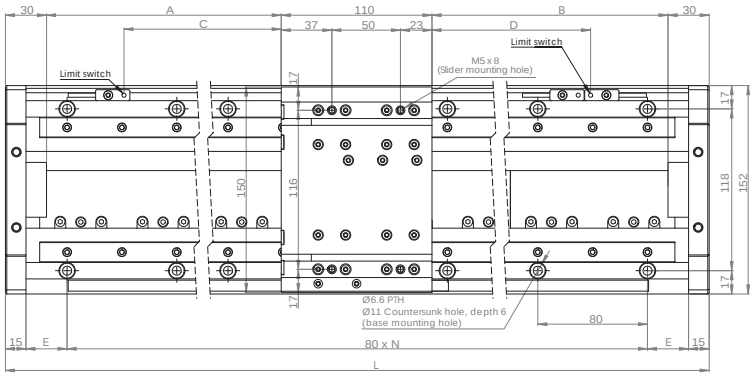
Open

Standard Specifications

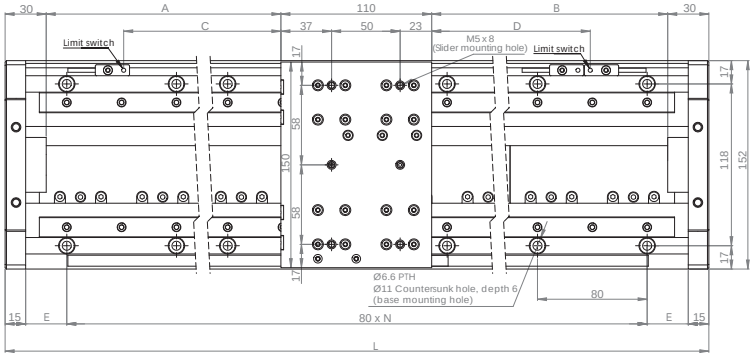
Unit : mm

Total Length (L)	350	530	650
Maximum Effective Travel (A+B)	195	375	495
Standard Travel (C+D)	120	240	360
Edge Distance of Base Mounting Hole (E)	15	25	45
N	4	6	7
Open Module Weight (kg)	2.7	3.3	3.9

Mounting Dimensions CLMS-PAX2

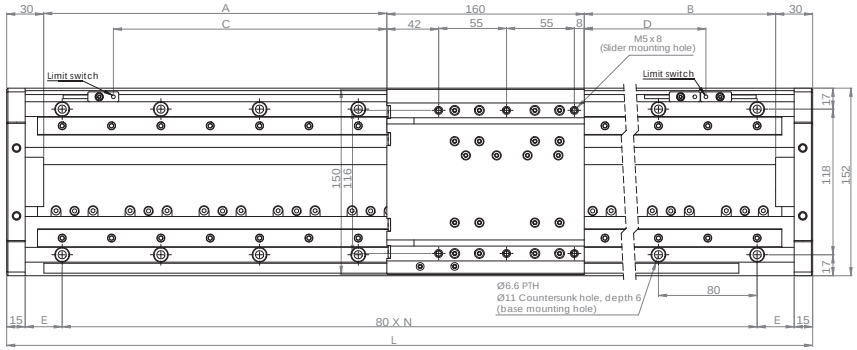


Standard

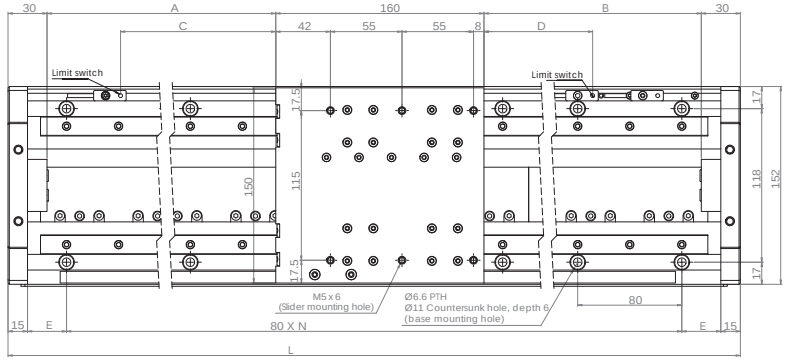


Open

Mounting Dimensions CLMS-PAX4



Standard



Open

Standard Specifications

Unit：mm

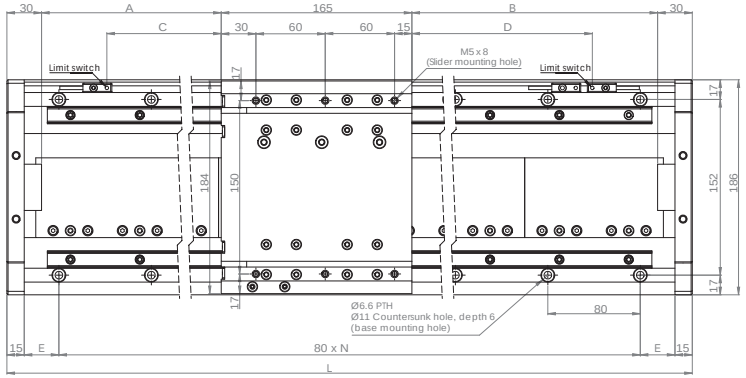
Total Length (L)	350	530	650	770	890	1010	1130	1250	1370	1490
Maximum Effective Travel (A+B)	180	360	480	600	720	840	960	1080	1200	1320
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	40	10	30	10	30	10	30	10	30	10
N	4	6	7	9	10	12	13	15	16	18
Standard Module Weight (kg)	8.2	10.2	12.2	14.2	16.2	18.2	20.2	22.2	24.2	26.2
Open Module Weight (kg)	7	9	11	13	15	17	19	21	23	25

Standard Specifications

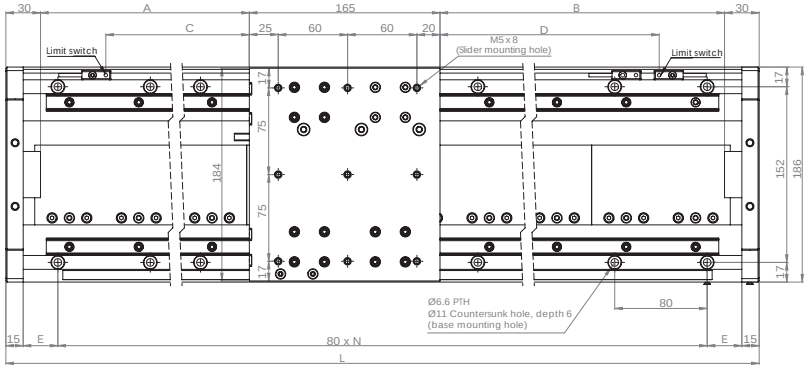
Unit：mm

Total Length (L)	350	530	650	770	890	1010	1130	1250	1370	1490
Maximum Effective Travel (A+B)	130	310	430	550	670	790	910	1030	1150	1270
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	40	10	30	10	30	10	30	10	30	10
N	4	6	7	9	10	12	13	15	16	18
Standard Module Weight (kg)	8.6	10.6	12.6	14.6	16.6	18.6	20.6	22.6	24.6	26.6
Open Module Weight (kg)	7.4	9.4	11.4	13.4	15.4	17.4	19.4	21.4	23.4	25.4

Mounting Dimensions CLMS-PBX4



Standard



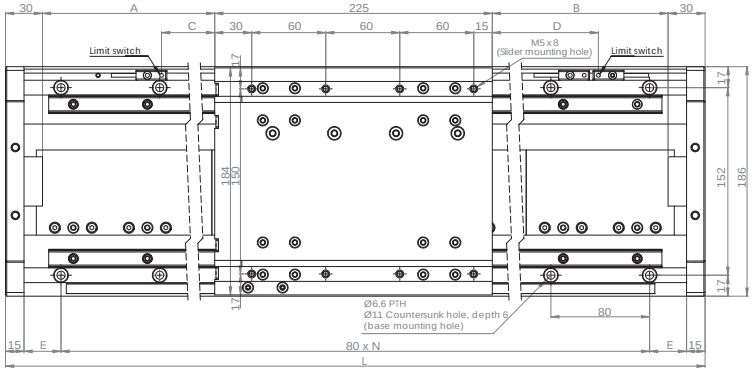
Open

Standard Specifications

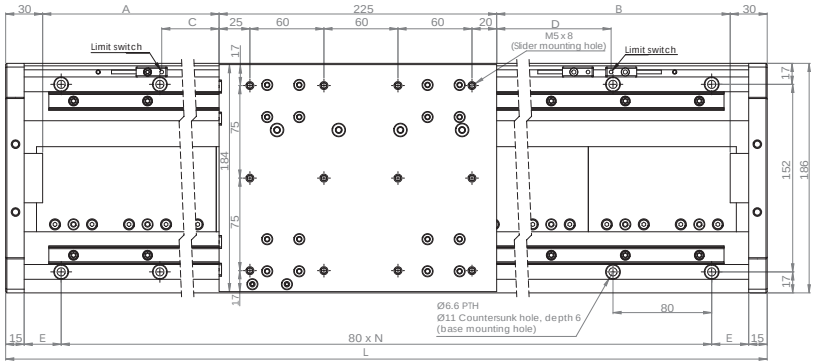
Unit : mm

Total Length (L)	350	530	650	770	890	1010	1130	1250	1370	1490
Maximum Effective Travel (A+B)	125	305	420	545	665	785	905	1025	1145	1265
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	40	10	30	10	30	10	30	10	30	10
N	3	6	7	9	10	12	13	15	16	18
Standard Module Weight (kg)	13.3	17	20.7	24.4	28.1	31.8	35.5	39.2	42.9	46.6
Open Module Weight (kg)	12	15.7	19.4	23.1	26.8	30.5	34.2	37.9	41.6	45.3

Mounting Dimensions CLMS-PBX6



Standard



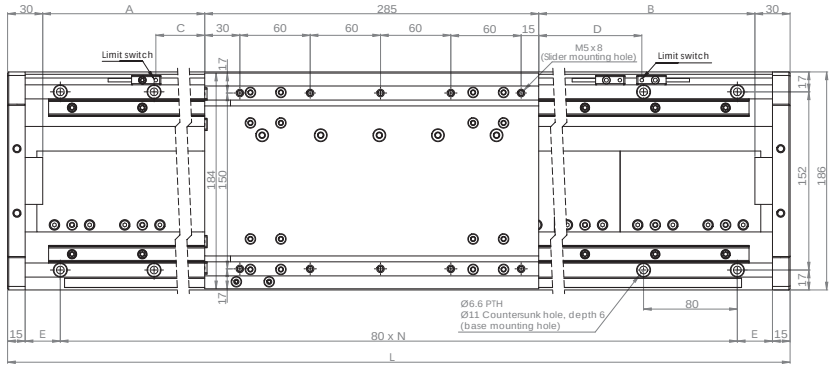
Open

Standard Specifications

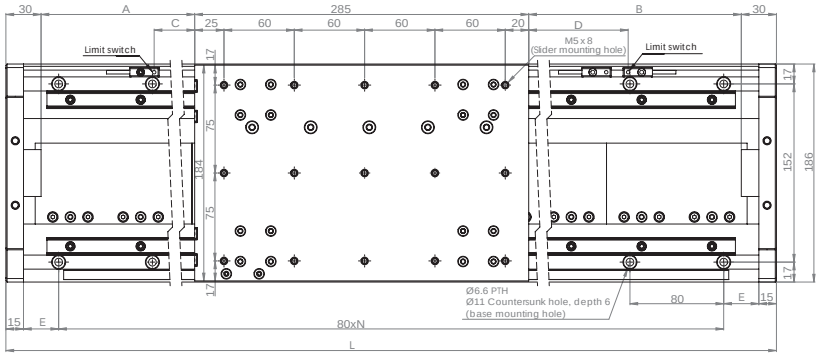
Unit : mm

Total Length (L)	530	650	770	890	1010	1130	1250	1370	1490	1610
Maximum Effective Travel (A+B)	245	365	485	605	725	845	965	1085	1210	1325
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	10	30	10	30	10	30	10	30	10	30
N	6	7	9	10	12	13	15	16	18	19
Standard Module Weight (kg)	14.2	17.9	21.6	25.3	29	32.7	36.4	40.1	43.8	47.5
Open Module Weight (kg)	12.8	16.5	20.2	23.9	27.6	31.3	35	38.7	42.4	46.1

Mounting Dimensions CLMS-PBX8



Standard



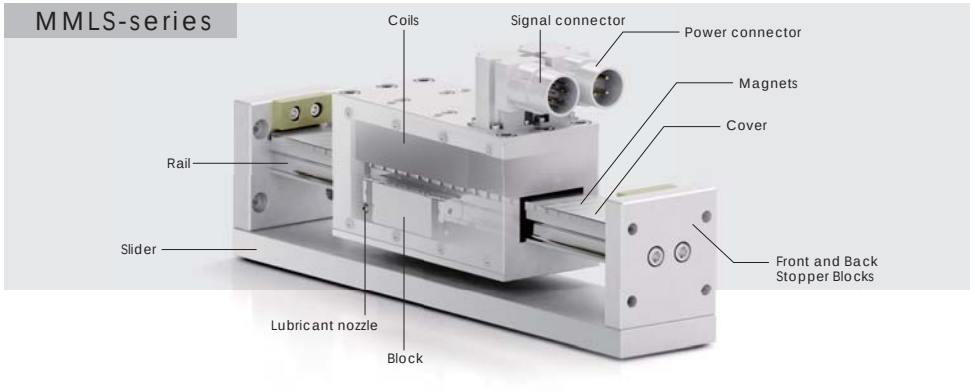
Open

Standard Specifications

Unit : mm

Total Length (L)	530	650	770	890	1010	1130	1250	1370	1490	1610
Maximum Effective Travel (A+B)	185	305	425	545	665	785	905	1025	1145	1265
Standard Travel (C+D)	120	240	360	480	600	720	840	960	1080	1200
Edge Distance of Base Mounting Hole (E)	10	30	10	30	10	30	10	30	10	30
N	6	7	9	10	12	13	15	16	18	19
Standard Module Weight (kg)	14.9	18.6	22.3	26	29.7	33.4	37.1	40.8	44.5	48.2
Open Module Weight (kg)	13.4	17.1	20.8	24.5	28.2	31.9	35.6	39.3	43	46.7

MMLS-series

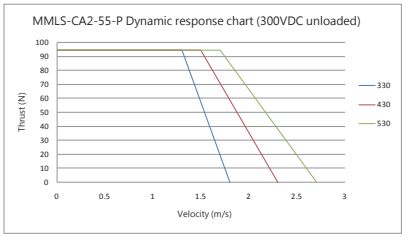


The most significant feature of MMLS series is that the moving parts are the magnets and rail. There will be no issues with moving cables such as dust, cables disconnecting, etc. This series is suitable for applications in vacuum and clean rooms.Moreover, as the coils are fixed, heat is more easily dissipated to its mounting structure, thus making this series suitable for short travel and high cycle rate transfer applications.

Module Parameters

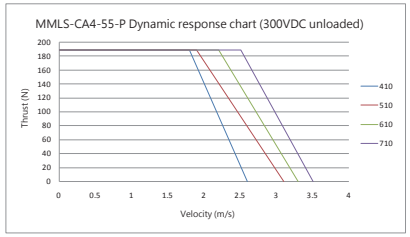
MMLS-CA2-55

MMLS	CA2-55	
	P	D
Module Parameters		
Continuous Force (N)	94.2	
Peak Force (N)	242.1	
Continuous Current (Apeak)	3.5	7
Peak Current (Apeak)	15	28
Force Constant (N/Apeak)	26.9	13.5
Back EMF Constant (VL-L/m/s)	33.7	16.9
Resistance (Ohms)	5.4	14
Inductance (mH)	25	6.25
Magnetic Pole Pitch (mm)	20	



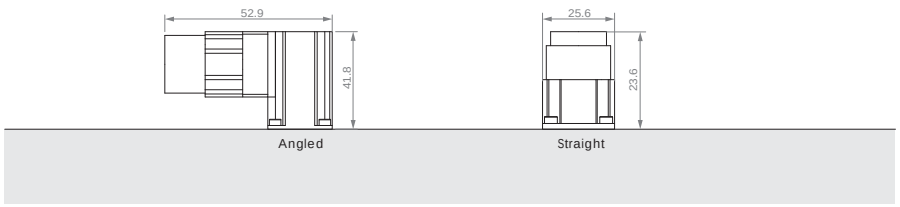
MMLS-CA4-55

MMLS	CA4-55	
	P	D
Module Parameters		
Continuous Force (N)	188.3	
Peak Force (N)	484.2	
Continuous Current (Apeak)	7	14
Peak Current (Apeak)	30	60
Force Constant (N/Apeak)	26.9	13.5
Back EMF Constant (VL-L/m/s)	33.7	16.9
Resistance (Ohms)	2.7	0.7
Inductance (mH)	12.5	3.13
Magnetic Pole Pitch (mm)	20	

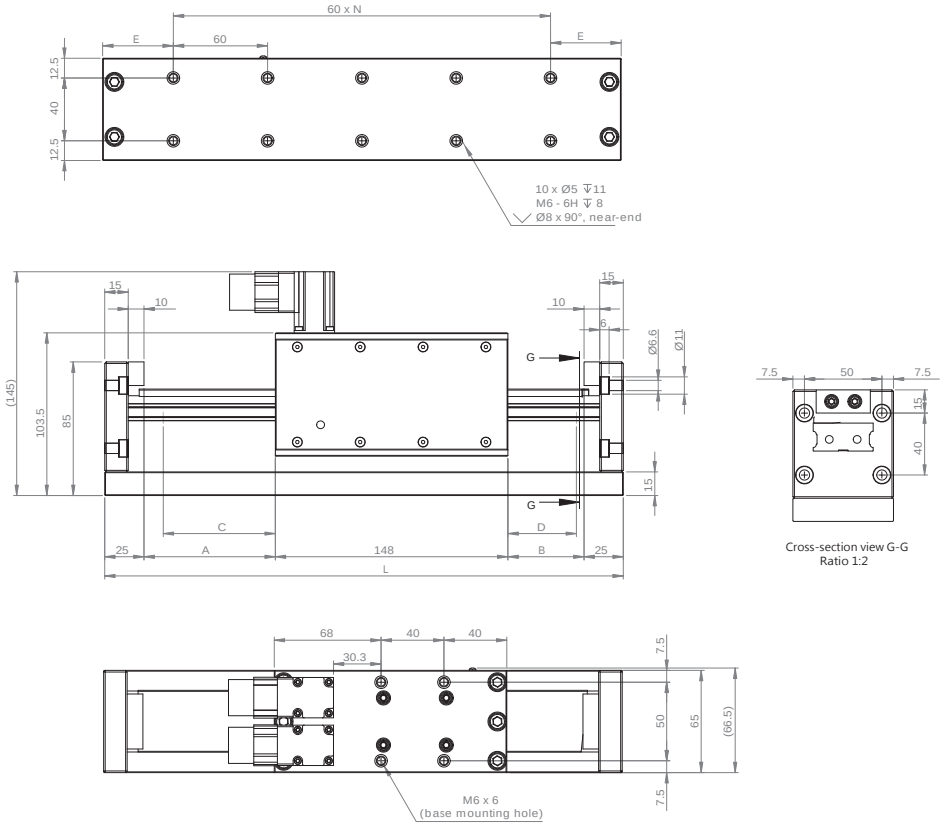


Accessory Options

Cable connector



Mounting Dimensions MMLS-CA2-55

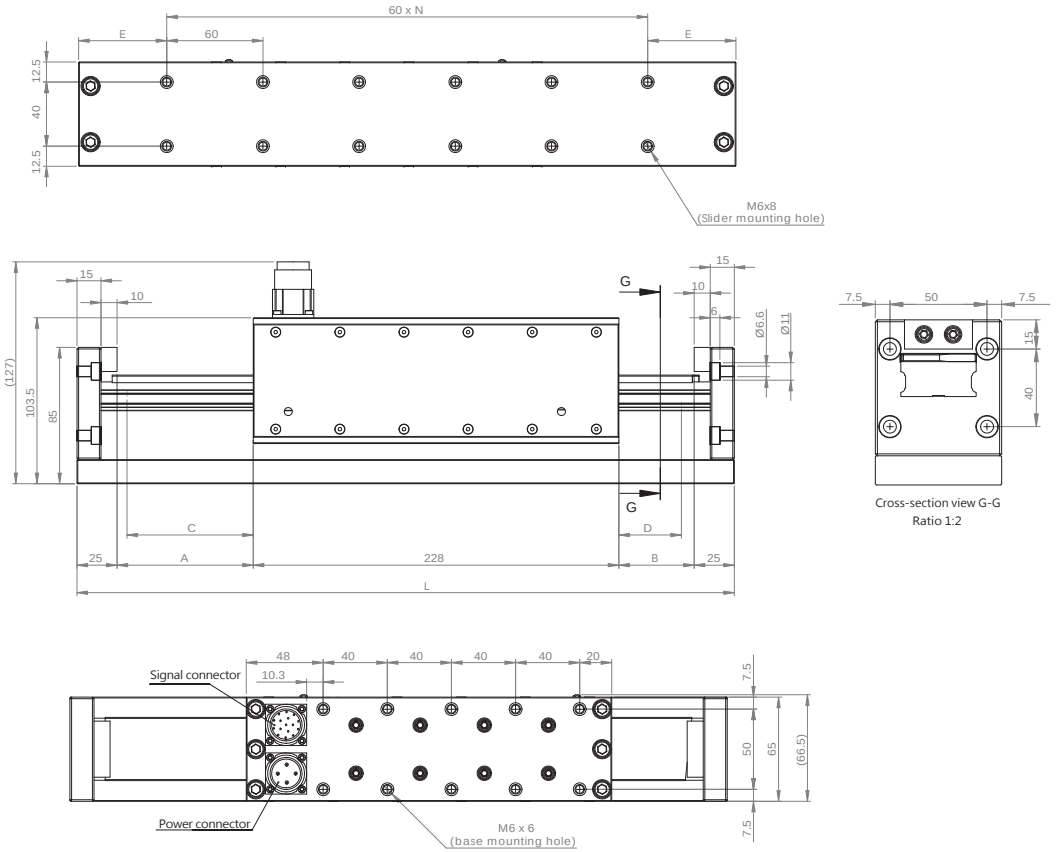


Standard Specifications

Unit：mm

Total Length (L)	330	430
Maximum Effective Travel (A+B)	132	232
Standard Travel (C+D)	100	200
Rail length	300	400
Slider mounting hole edge pitch(E)	45	35
N	4	6
Slider Mass(kg)	3	3.9
Module Weight(kg)	5.1	5.9

Mounting Dimensions MMLS-CA4-55

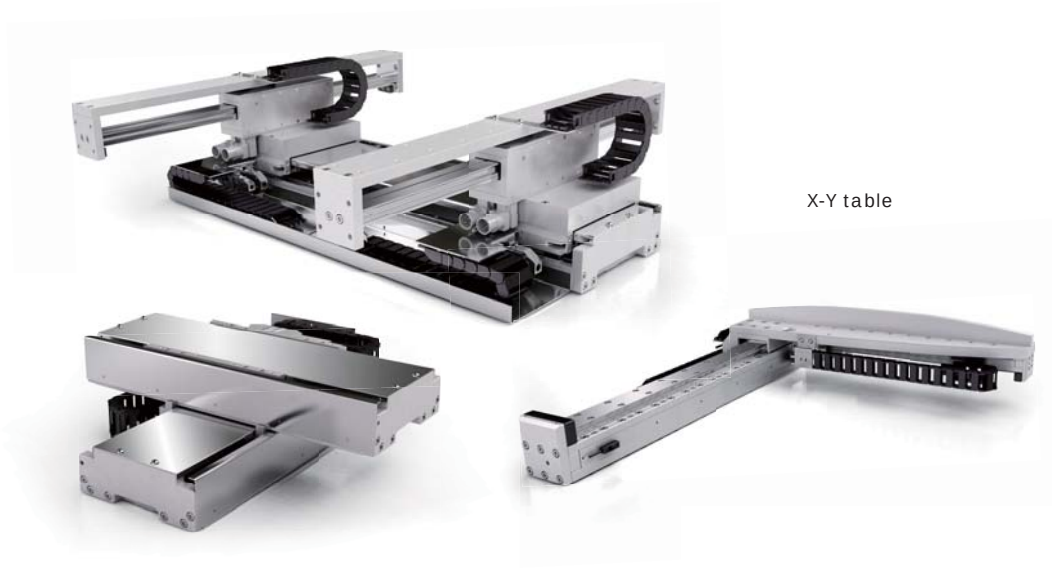


Standard Specifications

Unit：mm

Total Length (L)	410	510	610	710
Maximum Effective Travel (A+B)	132	232	332	432
Standard Travel (C+D)	100	200	300	400
Rail length	380	480	580	680
Slider mounting hole edge pitch(E)	55	45	35	25
N	5	7	9	11
Slider Mass(kg)	3.7	4.6	5.4	6.3
Module Weight(kg)	6.7	8	8.9	9.8

cpc is capable of supplying linear guide, linear motor, driver, magnetic encoder and linear motor stage as a total solution.Years of experience allows us to overcome most challenge and achieves customer satisfaction. More importantly, our technology and gives us great advantages in quality and competitiveness which make us the market leader in the industry.



X-Y table

Gantry

Open frame transmitted light table

For more details please contact cpc .

Ordering Information

CLMS	1250	CB	4	80	CR	M	A	I	N	C	N	-

- J：Customized
- N/A：N　Direct interface cable length: 1,2,3,4,5,6,7,8,9(m)
- Cable Interface：Direct: D　Joint: C　Transfer board: T
- Connector type: N/A：N　V:Angled　S: Straight
- Number of Sliders：I,II,III
- Resolution：A:1μm　B:0.5μm　C:0.2μm　D:0.1μm
- Encoder：O: Optical encoder　M: Magnetic encoder
- Dustproof：N：N/A　S: Standard Type　CR: Dust Seal　O: Open
- Motor Width：CLS　N/A
  CLMS　CA：55,75,115　CB：80,120　CC：84,124
  PM,PAX,PBX：-
  MMLS　CA：55
- Number of coil assembly：CLS：PM：4,6　PAX：2,4　PBX：2,4,6　CLMS：2,4,6,8　MMLS：2,4
- Motor Model　CLS：PM,PAX,PBX　CLMS：Ironcore CA,CB,CC　Ironless PM,PAX,PBX　MMLS：CA

Total Length：

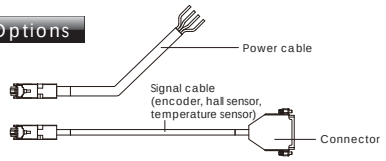
CLS
- PM4(6)：152,332,512mm
- PAX2(4)：220,340,520,820,1000,1480mm
- PBX2(4)：230,530,830,1010,1250,1490mm
- P B X 6 ：530,830,1010,1250,1490mm

CLMS
- CA2-55(115)：400,520,640,760,880,1000,1120,1240,1360,1480mm
- CA6-75(115)：520,640,760,880,1000,1120,1240,1360,1480,1600mm
- CB4-80(120)：530,650,770,890,1010,1130,1250,1370,1490,1610mm
- CC4-84(124)：620,734,848,962,1076,1190,1304,1418,1532,1646mm
- PM4(6) ：350,530,650mm
- PAX2(4)：350,530,650,770,890,1010,1130,1250,1370,1490mm
- P B X 4 ： 350,530,650,770,890,1010,1130,1250,1370,1490mm
- PBX6(8)：530,650,770,890,1010,1130,1250,1370,1490,1610mm

MMLS
- CA2-55：330,430mm
- CA4-55：410,510,610,710mm

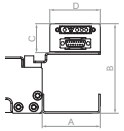
Stage Series：CLS - Single rail compact stage　CLMS - Double rail compact stage　MMLS - Moving magnet stage

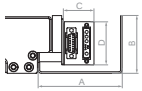
Accessory Options

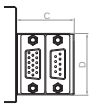


CLMS	C	H-CB	5	C

- Connector Head Type: N: N/A　C: cpc driver head　J: Customized
- Connector and transfer board cable length:1,2,3,4,5,6,7,8,9m
- Cable Chain Type：V-CA Standard cable chain　V-CB Standard cable chain　H-CA Side cable chain　H-CB Side cable chain　CN-PAX/PBX connector CN　J: Customized
- Cable Type：PM: PM Power Cable　PAX: PAX Power Cable　PBX: PBX Power Cable　S: Signal Cable　C: Ironcore Power Cable
- Stage Series：CLS - Single rail compact stage　CLMS - Double rail compact stage　MMLS - Moving magnet stage


V-Standard cable chain


H-Side cable chain


CN connector

	V-Standard cable chain	H-Side cable chain
CA	A=76 , B=117	A=119 , B=75
CB	A=109 , B=128	A=119 , B=82
J	Customized	

	Dimension within cable chain (CxD)
CA,CB Standard	54x66
CA,CB Dust Seal	54x55
CN-PAX,(PBX) connector	35x32(44x33)
J	Customized

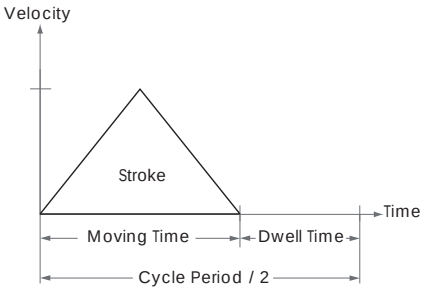
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

1. Point-to-Point Motion without constant velocity section

Property: Specific travel distance in specific time
Application: Pick and place, carriage etc.

a. Known Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Moving Time	s
(4) Dwell Time	s



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm

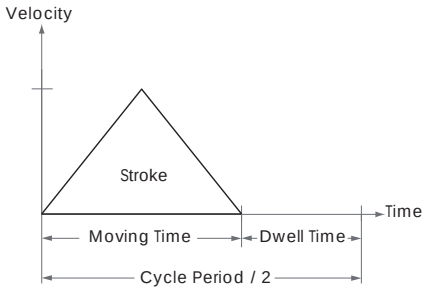
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

2. Point-to-Point Motion without constant velocity section

Property: Specific travel distance in specific time
Application: Pick and place, carriage etc.

a. Known Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Frequency	Hz
(4) Dwell Time	s



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm

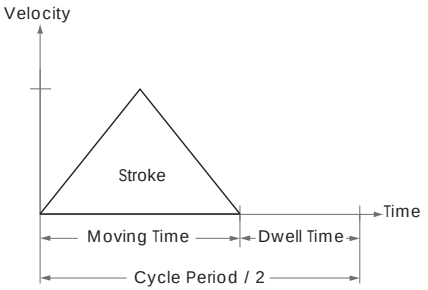
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

3. Point-to-Point Motion without constant velocity section

Property: Specific travel distance in specific time
Application: Pick and place, carriage etc.

a. Known Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Acceleration	m/s^2
(4) Dwell Time	s



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm

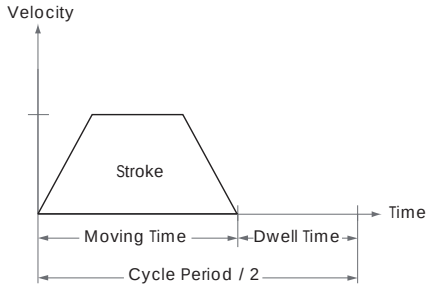
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

4. Point-to-Point Motion with constant velocity section

Property: Work performed under constant velocity
Application: Scanning, inspection, cutting etc.

a. Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Moving Time	s
(4) Dwell Time	s
(5) Acceleration	m/s²



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm

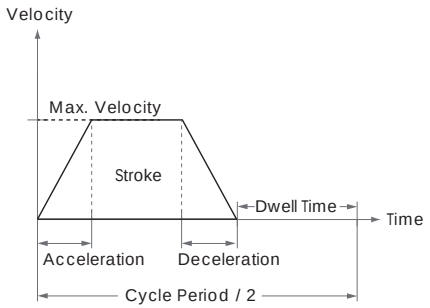
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

5. Point-to-Point Motion with constant velocity section

Property: Work performed under constant velocity
Application: Scanning, inspection, cutting etc.

a. Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Max. Velocity	m/s
(4) Acceleration Time	s
(5) Dwell Time	s



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm

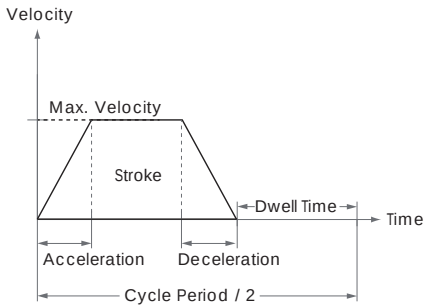
Sizing Form

Customer Name /	Filling Date (DD/MM/YEAR) /
Contact Person /	Telephone /
E-mail /	Fax /

6. Point-to-Point Motion with constant velocity section

Property: Work performed under constant velocity
Application: Scanning, inspection, cutting etc.

a. Motion Condition	
(1) Load Mass	kg
(2) Effective Stroke	m
(3) Moving Time	s
(4) Acceleration	m/s^2
(5) Dwell Time	s



b. Driver Condition	
(1) Max. Output Voltage	V
(2) Continuous Current	A
(3) Peak Current	A

c. Encoder	
(1) ☐ Analog ☐ Digital	
(2) Resolution	μm

f. Motion Direction
(1) ☐ Horizontal
(2) ☐ Vertical
(3) ☐ Tilt_____ Degrees

d. Working Environment
(1) ☐ Room Temperature
(2) ☐ Constant Temperature _____℃
(3) ☐ Vacuum _____ Torr
(4) ☐ Clean Room _____ Level

g. Installation Method
(1) ☐ Lying Flat
(2) ☐ Vertically standing
(3) ☐ Wall Mount

e. Motion Precision	
(1) Positioning Accuracy	μm
(2) Repetitive Accuracy	μm

h. Space Restrictions
(1) ☐ None
(2) ☐ Yes _____mm x_____mm x_____mm