

# GENERAL CATALOGUE

Motek Electric Corporation • General Catalogue • III



Motorize Our World • Lift Up Your Life

# MOTECK®





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Drawing on a heritage of more than 20 years in designing and producing reliable electromotive drive and control system, Moteck® products and solutions are comprehensively adopted by well-known customers worldwide. Started business in Satellite TV Antenna Motorization, we have been successfully expanding our business to market sectors in medical, homecare, furniture, industrial automation, mobility off highway, solar tracker, and gate opener.

The quality management system with ISO 9001 certified is solid executed for the whole organization. All products are tested and certified by international standards, CE, UL, PSE and RoHS, according to different countries and industrial requirements. With strong capability of manufacturing, product development and system integration, we can meet specific customization needs. Now we are strategic partner of many customers in US, Europe, Japan, and China, to design whole electromotive drive system for their products.



## Advantage

- Satisfied Quality to Price Ratio
- High Creativity and Flexibility
- Customization Available for Diversified Specification
- Harmonious Integration of Electronic and Mechanical Engineering
- Professional Global Operations
- Manufacturing Capabilities with Large Scale Capacity

## Location

Head Office: Taipei, Taiwan

Factory: Taoyuan, Taiwan & Suzhou, China



Taipei, Taiwan



Taoyuan, Taiwan



Suzhou, China



# Application

Our products can be used in one or multiple application sectors. We offer linear actuator, control box, hand control, and accessory, or a complete kit solution for each application. In this catalogue, you can easily find the application sectors that each product is mainly designed for by referring its icon. Below is describing the icon representing for each application sector and its typical examples.



## Furniture Line

The icon indicates products designed for furniture applications with improved ergonomics or comforts such as intelligent furniture sets, adjustable home-living beds, and recliners...etc. Our systems can work with mobile phone application (Android/iOS).



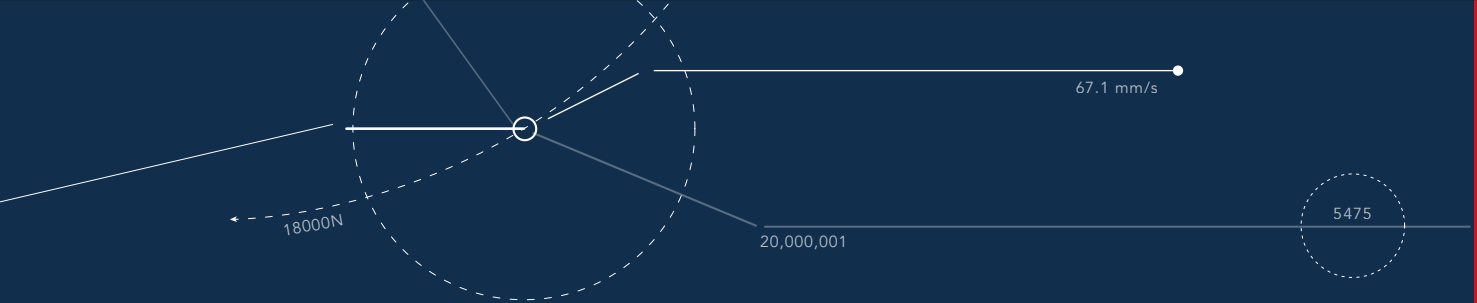
## Office Line

The icon indicates products designed for sit/stand desks. Standing office is a new trend now, and intelligent lifting can generate a healthier environment, and guarantee better work efficiency.



## Medical Care Line

The icon indicates products designed for medical and homecare applications helping patients and elder/disabled people who require assistance in their living activities, such as sit- to-stand patient lifts, nursing beds, power wheel chairs, and shower beds/chairs...etc.



### Leisure & Recreation Line

The icon indicates products designed for leisure and recreation applications that can be applied in fitness industry, camper vans, and fitting bikes...etc.



### Industrial Line

The icon indicates products designed for industrial automation such as process control equipment, conveyor systems, and skylight openers...etc. Both Ball Screw and ACME drive are available for customers to choose.



### Outdoor Power Application Line

The icon indicates products designed for outdoor power applications that can be applied in sectors including gate/window openers, marine industry, mowers, off-road-vehicle, and fork lifts...etc.



### Agricultural Line

The icon indicates products designed for agricultural applications that can be applied in harvesters, electric tractors, skid-steer loaders, and electric bucket loaders...etc.

# Linear Actuator

## FD10



**Input:** 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 500N  
**Max. Speed at No Load:** 15.1mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 120mm+Stroke  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 PTC thermistor for thermal protection  
 With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
FD10-24SF4-XXX.XXX-XXXXX0X	1000	500	8.4	5.5	0.5	1.5
FD10-24SF6-XXX.XXX-XXXXX0X	1000	500	11.5	6.2	0.5	1.7
FD10-24SF8-XXX.XXX-XXXXX0X	500	500	15.1	9.8	0.5	1.3

## FD20



**Input:** 24V DC  
**Max. Push Load:** 2000N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 48.0mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 135mm+Stroke  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL962  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Mechanical brake  
 With direct-cut cable to work without control box



Model No.	Max. Push/Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
FD20-24-A3-XXX.XXX-CXX	2000	2000	4.3	3.3	0.3	2.0
FD20-24-A4-XXX.XXX-CXX	2000	1500	5.6	4.0	0.3	2.3
FD20-24-K4-XXX.XXX-CXX	2000	1000	11.1	5.6	0.3	2.5
FD20-24-A8-XXX.XXX-CXX	1000	700	11.1	6.2	0.3	2.0
FD20-24-K8-XXX.XXX-CXX	1000	700	22.2	11.5	0.3	2.5
FD20-24-AC-XXX.XXX-CXX	1000	500	16.6	8.7	0.3	2.3
FD20-24-KC-XXX.XXX-CXX	500	300	33.3	21.0	0.3	2.0
FD20-24-N6-XXX.XXX-CXX	1500	1500	26.7	21.3	0.3	2.3
FD20-24-W6-XXX.XXX-CXX	1500	1500	48.0	28.0	0.3	2.5

Please refer to the product data sheet for the definition of Model No.

**FD40**

**Input:** 24V DC  
**Max. Push Load:** 4000N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 30.3mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 110mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 PTC thermistor for thermal protection  
 With direct-cut cable to work without control box  
 Enhanced motor  
 Motor position on right side (Fig. 1) or  
 motor position on left side (Fig. 2)

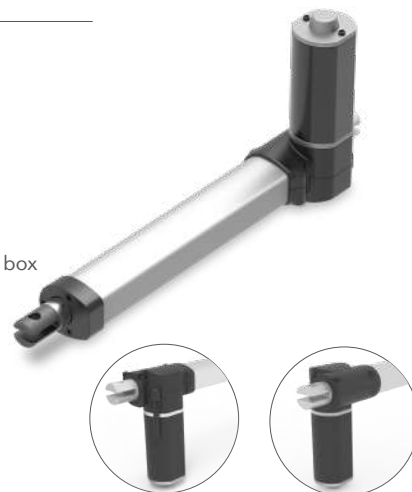


Fig. 1

Fig. 2

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
FD40-24DF4-XXX.XXX-XXXXXXX	1500	1500	7.7	5.8	0.3	2.5
FD40-24DF8-XXX.XXX-XXXXXXX	500	500	16.0	13.5	0.3	1.8
FD40-24EF4-XXX.XXX-XXXXXXX	4000	2000	8.4	4.0	0.2	3.3
FD40-24EF6-XXX.XXX-XXXXXXX	3000	2000	11.9	6.3	0.2	3.3
FD40-24EF8-XXX.XXX-XXXXXXX	2500	2000	15.9	8.1	0.3	3.3
FD40-24EH8-XXX.XXX-XXXXXXX	1500	1500	30.3	14.3	0.4	3.3

**MK33**

**Input:** 24V DC  
**Max. Push Load:** 6000N  
**Max. Speed at No Load:** 4.2mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 125mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU, UKCA  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MK33-24DA4-XXX.XXX-X1-XX0X	6000	3000	4.2	2.9	0.8	3.4

# Linear Actuator

## FD60



**Input:** 12 / 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 33.3mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL962, UKCA, RoHS, RCM  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Mechanical brake  
 With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)			
				No Load	Full Load	No Load		Full Load	
						12V	24V	12V	24V
FD60-XX-A4-XXX.XXX	6000	4000	5000	4.2	2.9	1.2	0.6	5.4	2.7
FD60-XX-F4-XXX.XXX	5000	4000	5000	5.5	4.4	1.2	0.6	5.6	2.8
FD60-XX-A6-XXX.XXX	4000	4000	2500	6.2	3.8	1.2	0.6	5.6	2.8
FD60-XX-A8-XXX.XXX	3000	3000	2000	8.3	5.0	1.2	0.6	5.6	2.8
FD60-XX-F8-XXX.XXX	3000	3000	2000	11.0	8.2	1.2	0.6	5.8	2.9
FD60-XX-AG-XXX.XXX	1500	1500	700	16.6	12.2	1.2	0.6	5.6	2.8
FD60-XX-KG-XXX.XXX	750	750	0	33.3	23.5	1.2	0.6	5.4	2.7

## FD61



**Input:** 12 / 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 33.3mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP42 (Static; non-action)  
**Min. Installation Dimension:** 150mm+Stroke  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL962  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Mechanical brake  
 With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)			
				No Load	Full Load	No Load		Full Load	
						12V	24V	12V	24V
FD61-XX-A4-XXX.XXX	6000	4000	5000	4.2	2.9	1.2	0.6	5.4	2.7
FD61-XX-A6-XXX.XXX	4000	4000	2500	6.2	3.8	1.2	0.6	5.6	2.8
FD61-XX-A8-XXX.XXX	3000	3000	2000	8.3	5.0	1.2	0.6	5.6	2.8
FD61-XX-AG-XXX.XXX	1500	1500	700	16.6	12.2	1.2	0.6	5.6	2.8
FD61-XX-KG-XXX.XXX	750	750	0	33.3	23.5	1.2	0.6	5.4	2.7

**GD70**

**Input:** 24V DC

**Max. Push Load:** 7000N

**Max. Pull Load:** 5000N

**Max. Speed at No Load:** 7.7mm/s

**Stroke:** 50~300mm

**Duty Cycle:** 10%

**IP Level:** IP43 (Static; non-action)

**Min. Installation Dimension:** 150mm+Stroke

**Preset limit switches**

**Compliant with CE, EMC directive 2014/30/EU**

**Certified:** UL962

**Option:**

Hall effect sensor

Mechanical push only extension tube

Mechanical brake



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
GD70-24-A4-XXX.XXX	7000	5000	5000	3.9	2.9	0.3	2.8
GD70-24-A6-XXX.XXX	5000	4000	2500	5.8	4.2	0.3	2.8
GD70-24-A8-XXX.XXX	4000	3500	2000	7.7	5.7	0.3	3.2

# Linear Actuator

## BD21



**Input:** 24V DC  
**Max. Push Load:** 2000N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 52mm/s  
**Stroke:** 50~333mm  
**Duty Cycle:** 10%

**Retracted Length:**  $\geq 130$ mm  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL962  
**With direct-cut cable to work without control box**  
**Option:**  
 Hall effect sensor  
 Cable outlet from front or rear end  
 There are 2 types of plastic units can be selected



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
BD21-X0-24-HC-XXX.XXX-XX	1500	52	42	0.5	2.5
BD21-X0-24-K3-XXX.XXX-XX	2000	8.3	4.7	0.3	2.5

## BD23



**Input:** 24V DC  
**Max. Push Load:** 1500N  
**Max. Pull Load:** 1500N  
**Max. Speed at No Load:** 40mm/s  
**Stroke:** 40~230mm  
**Duty Cycle:** 10%

**Retracted Length:**  $\geq 133$ mm  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**With direct-cut cable to work without control box**  
**Option:**  
 Cable outlet from front or rear end  
 There are 3 types of plastic units can be selected



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
BD23-24-N4-XXX.XXX-X-X	1500	1000	25	23	0.6	2.3
BD23-24-W6-XXX.XXX-X-X	1500	1500	40	33	0.6	4.0

**BD61**

Input: 12 / 24V DC

Max. Push Load: 6000N

Max. Pull Load: 4000N

Max. Speed at No Load: 33.3mm/s

Stroke: 100~1000mm

Duty Cycle: 10%

Retracted Length:  $\geq 127$ mm

Preset limit switches

Compliant with CE, EMC directive 2014/30/EU

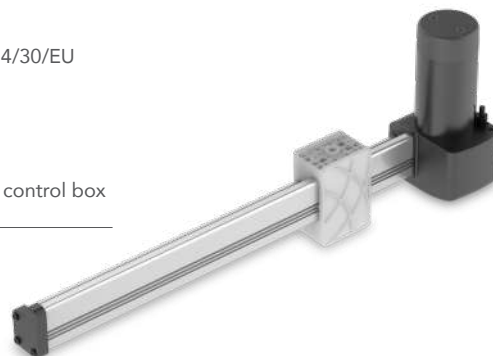
Option:

Hall effect sensor

Mechanical brake

Mounting bracket

With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)			
				No Load	Full Load	No Load		Full Load	
						12V	24V	12V	24V
BD61-XX-A4-XXX.XXX	6000	4000	5000	4.2	2.9	0.8	0.6	5.4	2.7
BD61-XX-F4-XXX.XXX	5000	4000	5000	5.5	4.4	0.8	0.6	5.6	2.8
BD61-XX-A6-XXX.XXX	4000	4000	2500	6.2	3.8	0.4	0.6	6.0	3.0
BD61-XX-A8-XXX.XXX	3000	3000	2000	8.3	5.0	0.6	0.6	5.4	2.7
BD61-XX-F8-XXX.XXX	3000	3000	2000	11.0	8.2	1.0	0.6	5.8	2.9
BD61-XX-AG-XXX.XXX	1500	1500	700	16.6	12.2	0.4	0.6	5.6	2.8
BD61-XX-KG-XXX.XXX	750	750	0	33.3	23.5	0.4	0.6	5.2	2.7

**BD62**

Input: 24V DC

Max. Push Load: 3000N

Max. Pull Load: 3000N

Max. Speed at No Load: 6.3mm/s

Stroke: 100~1000mm

Duty Cycle: 10%

Retracted Length:  $\geq 142$ mm

Preset limit switches

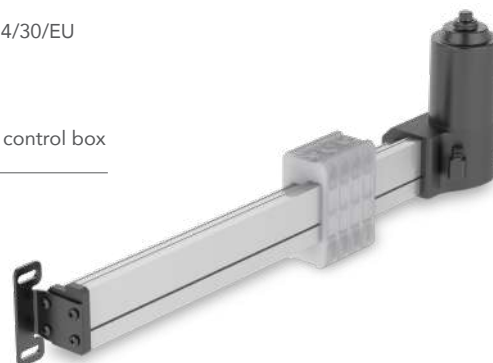
Compliant with CE, EMC directive 2014/30/EU

Option:

Hall effect sensor

Mechanical brake

With direct-cut cable to work without control box



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
BD62-XX-A6-XXX.XXX	3000	3000	3000	6.3	4.0	0.8	2.9

# Linear Actuator

## MKS1



**Input:** 12V DC  
**Max. Push Load:** 80N  
**Max. Pull Load:** 80N  
**Max. Static Load:** 40N  
**Max. Speed at No Load:** 28.0mm/s  
**Stroke:** 10 / 30 / 50 / 100mm  
**Duty Cycle:** 20%

**IP Level:** IP66/IP69K (Static; non-action)  
**Min. Installation Dimension:** 67mm+Stroke  
**Preset limit switches**



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MKS1-L-12-D-XXX-0XX	22	50:1	28.0	21.0	0.15	0.40
MKS1-L-12-E-XXX-0XX	42	100:1	17.6	11.6	0.15	0.31
MKS1-L-12-F-XXX-0XX	80	210:1	8.6	6.0	0.15	0.25

## MK45



**Input:** 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Static Load:** 2500N  
**Max. Speed at No Load:** 5.0mm/s  
**Stroke:** 50 / 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 10%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 245mm+Stroke  
**Preset powerswitches for stroke end limits**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:** MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MK45	1000	57:1	5.0	3.5	0.15	0.7

**LD10**

**Input:** 12 / 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Speed at No Load:** 18mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 (Static; non-action)  
**Min. Installation Dimension:** 256mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
LD10-XX-A6-16-XXX.XXX-CXX	1000	16:1	10	7	4.2	3.1	5.3	3.7
LD10-XX-A8-16-XXX.XXX-CXX	800	16:1	13	8	4.2	3.1	5.2	3.6
LD10-XX-AC-16-XXX.XXX-CXX	500	16:1	18	12	4.2	3.1	4.9	3.4

**LD12**

**Input:** 12 / 24V DC  
**Max. Push Load:** 1500N  
**Max. Pull Load:** 1500N  
**Max. Static Load:** 1800N  
**Max. Speed at No Load:** 17.4mm/s  
**Stroke:** 50 / 100 / 150 / 200 / 250 / 300 / 350 / 400mm  
**Duty Cycle:** 10%

**IP Level:** IP66 / IP69K (Static; non-action)  
**Min. Installation Dimension:** 183mm+Stroke  
**Certified:** CE, EMC directive 2014/30/EU, RoHS  
**Material:** All stainless steel SUS304 / Black coating steel case

**Option:**  
 Hall effect sensor  
 MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
LD12-XX19-M2-XXX.XXX	600	19:1	17.4	11.7	0.5	0.25	3.6	1.8
LD12-XX27-M2-XXX.XXX	1000	27:1	12.3	8.0	0.5	0.25	3.6	1.8
LD12-XX43-M2-XXX.XXX	1500	43:1	7.5	5.0	0.5	0.25	3.6	1.8
LD12-2457-K2-XXX.XXX	1500	57:1	3.5	2.3	N/A	0.2	N/A	0.8

# Linear Actuator

## LD2



**Input:** 24V DC  
**Max. Push Load:** 800N  
**Max. Pull Load:** 800N  
**Max. Speed at No Load:** 18.0mm/s  
**Stroke:** 50 / 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 10%

**IP Level:** IP43 (Static; non-action)  
**Min. Installation Dimension:** 109mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 C15 clamp  
 MB22 mounting bracket  
 IP54 (Static; non-action)



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)		Noise Level (dB)
			No Load	Full Load	No Load	Full Load	
LD2-24-30-E6-XXX-CXX	800	30:1	9.3	6.5	0.13	0.8	≤55
LD2-24-30-K6-XXX-CXX	800	30:1	18.0	14.1	0.4	1.6	≤70

## LD3



**Input:** 12 / 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Static Load:** 2500N  
**Max. Speed at No Load:** 43.9mm/s  
**Stroke:** 50 / 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 25%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 108mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU (for LD3 only)  
 EN60601 (for LD3M only), RoHS, UKCA  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 C15 clamp  
 MB22 mounting bracket  
 Quiet version (LD3Q)  
 Medical version (LD3M)  
 IP65 (Static; non-action)



WITH HALL EFFECT SENSOR



WITH POTENTIOMETER

Model No.	Max. Push/Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)				Noise Level (dB)
			No Load	Full Load	No Load		Full Load		
					12V	24V	12V	24V	
LD3-XX-05-K3-XXX	150	2500	43.9	36.5	0.6	1.2	1.6	3.2	≤70
LD3-XX-10-K3-XXX	250	2500	27.6	23.5	0.6	1.2	1.6	3.2	≤70
LD3-XX-20-K3-XXX	500	2500	14.6	12.3	0.6	1.2	1.6	3.2	≤70
LD3-XX-30-K3-XXX	800	2500	9.5	7.5	0.6	1.2	1.6	3.2	≤70
LD3-XX-40-K3-XXX	1000	2500	7.0	5.5	0.6	1.2	1.6	3.2	≤70

Please refer to the product data sheet for the definition of Model No.

**LD3L**

**Input:** 24~33V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Speed at No Load:** 20.7mm/s  
**Stroke:** 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 80%

**Min. Installation Dimension:** Stroke x 1.02+107mm  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Option:**  
 C15 clamp  
 MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Self-locking ability (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
LD3L-2433-10-XXX	250	2500	10:1	20.7	17.5	0.4	1.3
LD3L-2433-40-XXX	1000	2500	40:1	5.7	5.1	0.3	1.3

**LD36**

**Input:** 12 / 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Speed at No Load:** 43.9mm/s  
**Stroke:** 50 / 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 25%

**IP Level:** IP66 / IP69K (Static; non-action)  
**Min. Installation Dimension:** 108mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
LD36-XX-05-XXX-XXXXX	150	250	43.9	30.8	1.0	0.5	2.4	1.2
LD36-XX-10-XXX-XXXXX	250	340	27.6	16.8	1.0	0.5	2.4	1.2
LD36-XX-20-XXX-XXXXX	500	680	14.6	9.5	1.0	0.6	2.4	1.2
LD36-XX-30-XXX-XXXXX	800	1020	9.5	6.3	1.0	0.5	2.4	1.2
LD36-XX-40-XXX-XXXXX	1000	1530	7.0	4.6	1.0	0.5	2.4	1.2

# Linear Actuator

## LD20



**Input:** 12 / 24 / 48V DC  
**Max. Push Load:** 2500N  
**Max. Pull Load:** 2500N  
**Max. Speed at No Load:** 27.5mm/s  
**Stroke:** 100 / 150 / 200 / 250 / 300mm  
**Duty Cycle:** 25%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 105mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU,  
 EN60601

**Option:**  
 Hall effect sensor  
 Potentiometer  
 MB22 mounting bracket



型号	最大推力/拉力 (N)	自锁力 (N)	平均速度 (mm/s)						平均电流 (A)					
			空载			全载			空载			全载		
			12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
LD20-XX-10-G4-XXX	500	1500	26.8	27.0	27.5	18.6	18.7	19.5	1.3	0.6	0.4	4.4	2.4	1.4
LD20-XX-20-G4-XXX	1000	4500	14.7	15.1	15.4	10.4	10.7	11.5	1.1	0.5	0.4	4.6	2.3	1.2
LD20-XX-30-G4-XXX	1500	4500	9.9	10.3	10.5	6.8	7.2	7.4	1.0	0.6	0.3	4.3	2.3	1.3
LD20-XX-40-G4-XXX	2000	4500	7.4	7.6	7.9	5.1	5.7	5.8	1.0	0.6	0.3	4.5	2.3	1.2
LD20-XX-50-G4-XXX	2500	4500	6.2	6.1	6.4	4.4	4.4	4.6	0.9	0.5	0.3	4.1	2.2	1.2

## LD40



**Input:** 12 / 24V DC  
**Max. Dynamic Load:** 3000N (ACME)  
 4000N (Ball screw)  
**Max. Static Load:** 4000N (ACME)  
 6000N (Ball screw)  
**Max. Speed at No Load:** 20.5mm/s  
**Stroke:** 100 / 150 / 200 / 250 / 300 /  
 350 / 400mm  
**Duty Cycle:** 10%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 153mm+Stroke  
**Certified:** CE, EMC directive 2014/30/EU  
**ACME screw type or Ball screw type**  
**Friction Clutch:** Only for abnormal condition  
**Option:**  
 Hall effect sensor  
 Anodized black or Aluminum gray outer tube  
 External reed sensor (NC type)  
 Motor orientation



Model No.	Max. Push/ Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
LD40-XX-25F4B-XXX.XXX-11-XX0XX	4000	25:1	10.5	8.0	2.0	1.0	10.5	5.3
LD40-XX-12F4B-XXX.XXX-11-XX0XX	2000	12.5:1	20.5	16.3	1.9	1.0	11.3	5.6
LD40-XX-25F4A-XXX.XXX-11-XX0XX	3000	25:1	9.5	6.2	2.5	1.3	15.5	7.3

**LD60**

Input: 24V DC  
 Max. Push Load: 6000N  
 Max. Pull Load: 6000N  
 Max. Speed at No Load: 8.4mm/s  
 Stroke: 100~400mm  
 Duty Cycle: 10%

Min. Installation Dimension: 190mm+Stroke  
 Preset limit switches  
 Certified: CE, EN60601  
 Aluminum alloy outer tube and gearbox  
 Option:  
 Black color outer tube and gearbox  
 Bare screw nut



ALUMINUM ALLOY



ANODIZE BLACK



WITHOUT INNER&amp;OUTER TUBES

Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
LD60-24K4-XXX.XXX-XX000X	6000	5.5	3.9	0.4	5.1
LD60-24K6-XXX.XXX-XX000X	6000	8.4	4.9	0.6	7.0

**MD10**

Input: 24V DC  
 Max. Push Load: 1000N  
 Max. Pull Load: 1000N  
 Max. Speed at No Load: 36.0mm/s  
 Stroke: 50~300mm  
 Duty Cycle: 10%

IP Level: IPX5 (Static; non-action)  
 Min. Installation Dimension: 115mm+Stroke  
 Preset limit switches  
 Certified: CE, EN60601, UL60601  
 Option:  
 Hall effect sensor  
 Mechanical push only extension tube  
 C15 clamp  
 MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)		Noise Level (dB)
		No Load	Full Load	No Load	Full Load	
MD10-24F4-XXX.XXX-XXXXX0X	1000	5.1	2.8	0.8	1.1	≤48
MD10-24R4-XXX.XXX-XXXXX0X	1000	7.2	4.5	1.0	1.8	≤50
MD10-24F8-XXX.XXX-XXXXX0X	750	10.1	4.3	0.8	1.4	≤48
MD10-24R8-XXX.XXX-XXXXX0X	750	14.2	8.4	1.0	2.1	≤50
MD10-24FC-XXX.XXX-XXXXX0X	500	15.1	7.4	0.8	1.3	≤48
MD10-24L8-XXX.XXX-XXXXX0X	500	18.6	14.8	1.2	2.0	≤52
MD10-24RC-XXX.XXX-XXXXX0X	500	21.6	13.9	1.0	1.8	≤50
MD10-24LC-XXX.XXX-XXXXX0X	400	27.5	20.0	1.2	2.1	≤52
MD10-24LG-XXX.XXX-XXXXX0X	250	36.0	29.3	1.2	1.9	≤52

# Linear Actuator

## MD21



**Input:** 24V DC  
**Max. Push Load:** 2000N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 23.6mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX5 (Static; non-action)  
**Min. Installation Dimension:** 135mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU, EN60601  
**Option:**  
 Hall effect sensor  
 C15 clamp  
 MB22 mounting bracket



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
MD21-24N4-XXX.XXX-XXX00XX	2000	7.5	5.3	1.1	3.0
MD21-24N6-XXX.XXX-XXX00XX	1500	11.0	7.6	1.1	3.2
MD21-24NC-XXX.XXX-XXX00XX	1000	23.6	15.7	1.1	3.2

## MK32



**Input:** 24V DC  
**Max. Push Load:** 3500N  
**Max. Pull Load:** 3500N  
**Max. Speed at No Load:** 26.0mm/s  
**Stroke:** 50~600mm  
**Duty Cycle:** 10%

**IP Level:** IPX4, IP66 (Static; non-action)  
**Min. Installation Dimension:** 112mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
MK32-24N3-XXX.XXX	3500	6.5	5.0	2.5	5.0
MK32-24N4-XXX.XXX	3000	8.5	6.0	2.5	5.2
MK32-24N6-XXX.XXX	2500	13.0	9.0	2.5	6.0
MK32-24N8-XXX.XXX	2000	17.0	11.5	2.5	5.5
MK32-24NC-XXX.XXX	1500	26.0	14.0	2.5	6.0
MK32-24P4-XXX.XXX	3000	6.0	3.0	2.5	5.0
MK32-24P6-XXX.XXX	2500	10.5	5.5	2.5	4.5
MK32-24P8-XXX.XXX	2000	14.0	7.5	2.5	4.5

**MD50**

Input: 24V DC  
 Max. Push Load: 3500N  
 Max. Pull Load: 2000N  
 Max. Speed at No Load: 11.4mm/s  
 Stroke: 50~600mm  
 Duty Cycle: 10%

Min. Installation Dimension: 137mm+Stroke  
 Preset limit switches  
 Certified: CE, EN60601, EN610601  
 Option: Mechanical push only extension tube



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD50-24-A3-XXX.XXX-CXX-XXXX	3500	2000	5.0	3.8	0.8	3.8
MD50-24-F3-XXX.XXX-CXX-XXXX	2000	2000	11.4	9.0	0.9	3.5

**MD51**

Input: 24V DC  
 Max. Push Load: 3500N  
 Max. Pull Load: 2000N  
 Max. Speed at No Load: 11.4mm/s  
 Stroke: 100~600mm  
 Duty Cycle: 10%

IP Level: IP66 (Static; non-action)  
 Min. Installation Dimension: 141mm+Stroke  
 Preset limit switches  
 Certified: CE, EN60601, EN610601  
 Option: Mechanical push only extension tube



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD51-24-A3-XXX.XXX-CXX-XXXX	3500	2000	5.0	3.8	0.8	3.8
MD51-24-F3-XXX.XXX-CXX-XXXX	2000	2000	11.4	9.0	0.9	3.5

# Linear Actuator

## MD52



**Input:** 24V DC  
**Max. Push Load:** 1000N  
**Max. Pull Load:** 1000N  
**Max. Speed at No Load:** 25.0mm/s  
**Stroke:** 100~300mm  
**Duty Cycle:** 10%

**IP Level:** IP66 / IP69K (Static; non-action)  
**Min. Installation Dimension:** 156mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Potentiometer  
 Bellow protection (100mm stroke only)



BELLOW PROTECTION

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD52-24-M6-XXX.XXX-X-X	1000	1000	25.0	18.5	1.5	5.0

## MD53



**Input:** 24 / 36V DC  
**Max. Push Load:** 3500N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 10.5mm/s  
**Stroke:** 100~300mm  
**Duty Cycle:** 10%

**Min. Installation Dimension:** 167mm+Stroke  
**Preset limit switches**  
**Option:** Potentiometer



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Input Voltage (V DC)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
MD53-24-XXX.XXX-CXX	3500	2000	24	10.5	8.5	1.0	4.5
MD53-36-XXX.XXX-CXX	3500	2000	36	10.5	8.5	0.8	3.5

## MD56



Input: 24V DC  
 Max. Push Load: 5000N  
 Max. Pull Load: 3500N  
 Max. Speed at No Load: 40mm/s  
 Stroke: 50~400mm  
 Duty Cycle: 10%

Min. Installation Dimension: 156mm+Stroke  
 Preset limit switches  
 Motor orientation can be adjusted in every 30°  
 Certified: CE, EN60601  
 Option:  
 Hall effect sensor  
 Potentiometer  
 Reed sensor  
 IPX6 waterproof case



WATERPROOF CASE

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD56-X-24R3-XXX.XXX-XXXX0XX	5000	3500	5.0	4.0	1.0	4.0
MD56-X-24W6-XXX.XXX-XXXX0XX	2000	2000	16.5	13.5	2.0	5.0
MD56-X-24N9-XXX.XXX-XXXX0XX	1500	1500	40.0	30.0	2.8	8.0

## MD57



Input: 24V DC  
 Max. Push Load: 4000N  
 Max. Pull Load: 4000N  
 Max. Speed at No Load: 12.6mm/s  
 Stroke: 50~300mm  
 Duty Cycle: 10%

Min. Installation Dimension: 143mm+Stroke  
 Motor orientation can be adjusted in whole 360°  
 Certified: CE, EN60601  
 Option:  
 Hall effect sensor  
 Potentiometer  
 Preset cam type limit switches  
 IPX6 waterproof case  
 12V high power motor



WATERPROOF CASE



12V HIGH POWER MOTOR



WITH LIMIT SWITCH OR POSITIONING FEEDBACK

Model No.	Input Voltage (V DC)	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD57-X-24K3-XXX.XXX-XXXXXXX	24	4000	4.8	3.5	0.7	3.5
MD57-X-24K4-XXX.XXX-XXXXXXX	24	3200	6.4	4.8	0.7	3.4
MD57-X-24K6-XXX.XXX-XXXXXXX	24	2700	9.4	7.0	0.7	3.8
MD57-X-24K8-XXX.XXX-XXXXXXX	24	2300	12.6	8.9	0.8	4.0
MD57-X-12W4-XXX.XXX-XXXXXXX	12	4000	12.0	9.5	3.0	16.0

# Linear Actuator

## MK31-QR



**Input:** 24V DC  
**Max. Push Load:** 4000N  
**Max. Pull Load:** 2000N  
**Max. Speed at No Load:** 6.8mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX6 (Static; non-action)  
**Min. Installation Dimension:** 170mm+Stroke  
**Quick Release function**  
**Preset limit switches**  
**Certified:** CE, EN60601  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
MK31-QR	4000	2000	4000	6.8	4.9	1.0	3.5

## MK31



**Input:** 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 3000N  
**Max. Speed at No Load:** 5.5mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX6 (Static; non-action)  
**Min. Installation Dimension:** 170mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
MK31	6000	3000	6000	5.5	3.8	0.8	4.0

**MD60**

**Input:** 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 23.0mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 (Static; non-action)  
**Min. Installation Dimension:** 155mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, EN610601, RoHS  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 QR1 quick release  
 QR2 quick release  
 MR3 manual release  
 IPX6 (Static; non-action)

QR1  
QUICK RELEASEQR2  
QUICK RELEASEMR3  
MANUAL RELEASE

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD60-24-A3-XXX-XXX-CXX	6000	4000	2.9	2.1	0.5	3.0
MD60-24-A4-XXX-XXX-CXX	6000	4000	3.8	2.5	0.5	3.5
MD60-24-A6-XXX-XXX-CXX	6000	4000	5.8	3.6	0.5	4.0
MD60-24-A8-XXX-XXX-CXX	6000	4000	7.6	5.0	0.5	4.5
MD60-24-AC-XXX-XXX-CXX	3000	3000	11.5	8.2	0.5	3.5
MD60-24-AG-XXX-XXX-CXX	1500	1500	15.3	12.0	0.5	3.0
MD60-24-K3-XXX-XXX-CXX	6000	4000	5.8	3.8	0.5	3.5
MD60-24-K4-XXX-XXX-CXX	6000	4000	7.5	4.5	0.5	4.5
MD60-24-K6-XXX-XXX-CXX	3000	3000	11.5	6.9	0.5	3.5
MD60-24-K8-XXX-XXX-CXX	3000	3000	15.3	10.0	0.5	4.0
MD60-24-KC-XXX-XXX-CXX	2000	2000	23.0	14.7	0.5	4.0
MD60-24-A8-XXX-XXX-CXX-QR1	3000	3000	7.6	6.3	0.5	2.5
MD60-24-AC-XXX-XXX-CXX-QR1	2000	2000	11.5	9.3	0.5	2.5

**MD66**

**Input:** 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 16.6mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IPX5 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, EN610601  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 Mechanical brake



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
MD66-24-A4-XXX-XXX	6000	4000	5000	4.2	2.9	0.6	2.7
MD66-24-A6-XXX-XXX	4000	4000	2500	6.2	3.8	0.6	3.0
MD66-24-A8-XXX-XXX	3000	3000	2000	8.3	5.0	0.6	2.7
MD66-24-AG-XXX-XXX	1500	1500	700	16.6	12.2	0.6	2.8

# Linear Actuator

## MK67



**Input:** 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 3000N  
**Max. Speed at No Load:** 3.8mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IPX5 (Static; non-action)  
**Min. Installation Dimension:** 142mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Braking Ability (N)	Typical Speed (mm/s)		Typical Current (A)	
				No Load	Full Load	No Load	Full Load
MK67-24-A4-XXX.XXX	6000	3000	6000	3.8	2.7	0.8	2.8
MK67-24-A8-XXX.XXX	3000	2000	3000	7.8	5.2	0.5	3.0

## MD7



**Input:** 12 / 24V DC  
**Max. Push Load:** 6000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 16.6mm/s  
**Stroke:** 50~300mm  
**Duty Cycle:** 10%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, RoHS, RCM  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 Mechanical brake



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Self-locking ability (N)	Typical Speed (mm/s)		Typical Current (A)			
				No Load	Full Load	No Load		Full Load	
						12V	24V	12V	24V
MD7-XX-A4-XXX.XXX	6000	4000	5000	4.2	2.9	1.2	0.6	5.4	2.7
MD7-XX-A6-XXX.XXX	4000	4000	2500	6.2	3.8	1.2	0.6	5.6	2.8
MD7-XX-A8-XXX.XXX	3000	3000	2000	8.3	5.0	1.2	0.6	5.6	2.8
MD7-XX-AG-XXX.XXX	1500	1500	700	16.6	12.2	1.2	0.6	5.6	2.8
MD7-XX-F4-XXX.XXX	5000	4000	5000	5.5	4.4	1.2	0.6	5.6	2.8
MD7-XX-F8-XXX.XXX	3000	3000	2000	11.0	8.2	1.2	0.6	5.8	2.9

**MD80**

**Input:** 24V DC  
**Max. Push Load:** 8000N  
**Max. Pull Load:** 6000N  
**Max. Speed at No Load:** 16.6mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 / IPX5 (Static; non-action)  
**Min. Installation Dimension:** 180mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, EN610601, RoHS  
**Option:**  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 QR2 quick release  
 MR3 manual release

MR3  
MANUAL RELEASEQR2  
QUICK RELEASE

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD80-24DA4-XXX.XXX-XXX0XX	8000	6000	4.2	3.3	0.6	5.5
MD80-24DA6-XXX.XXX-XXX0XX	8000	6000	6.2	4.6	0.6	6.0
MD80-24DA8-XXX.XXX-XXX0XX	8000	6000	8.1	5.9	0.6	6.5
MD80-24DK8-XXX.XXX-XXX0XX	3000	3000	16.6	11.8	1.0	5.5

**MD80M**

**Max. Push Load:** 8000N  
**Max. Pull Load:** 6000N  
**Max. Speed at No Load:** 16.6mm/s  
**Input:** 110 / 230V AC  
**Power Supply:** 24V/8A toroidal transformer  
**Output Voltage:** 24V DC  
**Number of Control:** 1  
**Number of Additional Actuator:** 2  
 (except for own actuator)  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 / IPX5 (Static; non-action)  
**Min. Installation Dimension:** 180mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, EN610601  
**Integrate with control unit and power supply**  
**Option:**  
 Mechanical push only extension tube  
 Safety nut (in push direction)



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD80M-24A4-XXX.XXX-XXX0XX	8000	6000	4.2	3.3	0.6	5.0
MD80M-24A6-XXX.XXX-XXX0XX	8000	6000	6.2	4.6	0.6	6.0
MD80M-24A8-XXX.XXX-XXX0XX	8000	6000	8.1	5.9	0.6	6.7
MD80M-24K8-XXX.XXX-XXX0XX	3000	3000	16.6	11.8	1.0	5.0

# Linear Actuator

## MD82



**Input:** 24V DC  
**Max. Push Load:** 8000N  
**Max. Pull Load:** 6000N  
**Max. Speed at No Load:** 8.2mm/s  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 / IPX6 (Static; non-action)  
**Min. Installation Dimension:** 177mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, RoHS  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 MR3 manual release



MR3  
MANUAL RELEASE

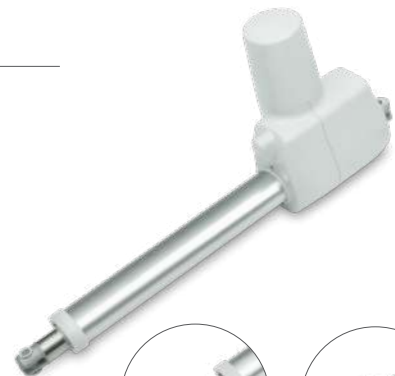
Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD82-24DA4-XXX.XXX-XXXXX0XX	8000	6000	4.1	3.1	0.6	4.2
MD82-24DA6-XXX.XXX-XXXXX0XX	8000	6000	6.0	3.9	0.6	5.4
MD82-24DA8-XXX.XXX-XXXXX0XX	8000	6000	8.2	4.8	0.6	6.3

## MD100



**Input:** 24V DC  
**Max. Push Load:** 10000N  
**Max. Pull Load:** 6000N  
**Max. Speed at No Load:** 9.0mm/s  
**Stroke:** 100~600mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 / IPX6 (Static; non-action)  
**Min. Installation Dimension:** 210mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601, UL 60601  
**Option:**  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 QR2 quick release  
 MR3 manual release



QR2  
QUICK RELEASE



MR3  
MANUAL RELEASE

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD100-24DC-XXX.XXX-XXX0XXX	10000	6000	7.0	5.2	1.0	7.0
MD100-24FC-XXX.XXX-XXX0XXX	10000	6000	9.0	6.7	1.0	8.2

**MK38**

**Input:** 24V DC  
**Max. Push Load:** 12000N  
**Max. Pull Load:** 4000N  
**Max. Speed at No Load:** 16.3mm/s  
**Stroke:** 100~600mm  
**Duty Cycle:** 10%

**IP Level:** IPX6 (Static; non-action)  
**Min. Installation Dimension:** 170mm+Stroke  
**Preset limit switches**  
**Option:**  
 Hall effect sensor  
 Mechanical push only extension tube  
 Safety nut (in push direction)  
 MR3 manual release



Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MK38-24F4-XXX.XXX-X10006X	12000	4000	5	3.3	1.8	8.3
MK38-24F6-XXX.XXX-X10006X	12000	4000	8	5.3	1.8	9.2
MK38-24F8-XXX.XXX-X10006X	10000	4000	10	7	1.8	9.2
MK38-24F9-XXX.XXX-X10006X	8000	4000	12	8.3	1.8	9.2
MK38-24FC-XXX.XXX-X10006X	8000	4000	16.3	12.5	1.8	9.2

**MD120**

**Input:** 24V DC  
**Max. Push Load:** 12000N  
**Max. Pull Load:** 6000N  
**Max. Speed at No Load:** 6.9mm/s  
**Stroke:** 100~400mm  
**Duty Cycle:** 10%

**IP Level:** IPX4 (Static; non-action)  
**Min. Installation Dimension:** 230mm+Stroke  
**Preset limit switches**  
**Certified:** CE, EN60601  
**Option:**  
 Mechanical push only extension tube  
 Electrical push only function  
 MR3 manual release  
 IPX6 (Static; non-action)



MR3  
MANUAL RELEASE

Model No.	Max. Push Load (N)	Max. Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MD120-24E8-XXX.XXX-XXX0XXX	12000	6000	6.3	4.4	0.6	6.6
MD120-24F8-XXX.XXX-XXX0XXX	12000	6000	6.9	5.2	0.9	7.5

# Linear Actuator

## ID10



**Input:** 12 / 24 / 48V DC  
**Max. Rated Load:** 3500N (ACME screw)  
 7000N (Ball screw)  
**Max. Static Load:** 7500N (ACME screw)  
 13600N (Ball screw)  
**Max. Speed at No Load:** 72.1mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457 / 610mm  
**Duty Cycle:** 25%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**ACME screw type or Ball screw type**  
**Overload protection by clutch**  
**Certified:** CE, EMC directive 2014/30/EU, RoHS  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Built-in limit switches  
 Manual drive socket  
 MB30 mounting bracket  
 IP65, IP66/IP69K (Static; non-action)



WITH POTENTIOMETER

Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)						Typical Current (A)					
		No Load			Full Load			No Load			Full Load		
		12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
ID10-XX-G5A-10	1500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	1.4	17.6	8.8	3.6
ID10-XX-G5A-20	2500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.8	13.2	6.6	2.4
ID10-XX-G5A-40	3500	8.4	8.4	8.6	7.3	7.3	7.8	2.6	1.6	0.5	11.0	5.5	2.1
ID10-XX-G5B-05	2500	67.1	67.1	72.1	47.2	47.2	57.5	3.4	2.6	0.5	26.4	13.2	5.5
ID10-XX-G5B-10	3500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	0.5	17.6	8.8	3.6
ID10-XX-G5B-20	4500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.5	13.2	6.6	2.4
ID10-XX-G5B-30	6000	11.2	11.2	11.7	9.8	9.8	10.3	2.6	1.6	0.5	12.1	6.1	2.5
ID10-XX-G5B-40	7000	8.4	8.4	8.6	7.4	7.4	7.8	2.6	1.6	0.5	11.0	5.5	2.1

## ID10BT



**Input:** 24V DC  
**Max. Rated Load:** 1000N  
**Max. Static Load:** 1500N  
**Max. Speed at No Load:** 72mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457mm  
**Duty Cycle:** 25%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**ACME screw type**  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Potentiometer  
 MB30 mounting bracket  
 IP66/IP69K (Static; non-action)



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
ID10BT-24F5A-XXX-0X0XLXX	1000	72	53	1.8	10

## ID10K



**Input:** 12 / 24V DC  
**Max. Rated Load:** 7000N  
**Max. Static Load:** 13600N  
**Max. Speed at No Load:** 14mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457 / 610mm  
**Duty Cycle:** 10%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**ACME screw type**  
**Overload protection by clutch**  
**Certified:** CE, EMC directive 2014/30/EU, UKCA  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Built-in limit switches  
 MB30 mounting bracket  
 IP66/IP69K (Static; non-action)



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
ID10K-XX-G4A-20-XXX	5600	20:1	14	10.5	2	1	20	10
ID10K-XX-G4A-40-XXX	7000	40:1	7	5.5	2	1	14	7

## ID10G



**Input:** 12 / 24V DC  
**Max. Rated Load:** 9000N  
**Max. Static Load:** 18000N  
**Max. Speed at No Load:** 14mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457 / 610mm  
**Duty Cycle:** 10%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 200mm+Stroke  
**ACME screw type**  
**Overload protection by clutch**  
**Certified:** CE, EMC directive 2014/30/EU, UKCA  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Built-in limit switches  
 MB30 mounting bracket  
 IP66/IP69K (Static; non-action)



Model No.	Max. Push/Pull Load (N)	Gear Ratio	Typical Speed (mm/s)		Typical Current (A)			
			No Load	Full Load	No Load		Full Load	
					12V	24V	12V	24V
ID10G-XX-G8A-40-XXX	9000	40:1	14	10	1.6	0.8	22	11

# Linear Actuator

## ID10P



**Input:** 24V DC  
**Max. Rated Load:** 12500N  
**Max. Static Load:** 13600N  
**Max. Speed at No Load:** 20mm/s  
**Stroke:** 102 / 203 / 305mm  
**Duty Cycle:** 10%

**IP Level:** IP67/IP69K (Static; non-action)  
**Min. Installation Dimension:** 296mm+Stroke  
**Ball screw type**  
**Overload protection by clutch**  
**Preset limit switches**  
**Compliant with CE, EMC directive 2014/30/EU**  
**Option:**  
 Potentiometer  
 MB30 mounting bracket



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
ID10P-24-20B-XXX-XXX000X	9000	20	15.5	1.8	11.0
ID10P-24-30B-XXX-XXX000X	12500	14	10.5	1.5	11.5

## ID11



**Input:** 12 / 24 / 48V DC  
**Max. Rated Load:** 3500N (ACME screw)  
 7000N (Ball screw)  
**Max. Static Load:** 4500N (ACME screw)  
 13600N (Ball screw)  
**Max. Speed at No Load:** 36.5mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457 / 610mm  
**Duty Cycle:** 25%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 217mm+Stroke  
**ACME screw type or Ball screw type**  
**Overload protection by clutch**  
**Preset limit switches**  
**Bottom cable outlet**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Side cable outlet  
 MB30 mounting bracket  
 IP65 (Static; non-action)



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)						Typical Current (A)					
		No Load			Full Load			No Load			Full Load		
		12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
ID11-XX-10-A-XXX	1500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	1.4	17.6	8.8	3.6
ID11-XX-20-A-XXX	2500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.8	13.2	6.6	2.4
ID11-XX-40-A-XXX	3500	8.4	8.4	8.6	7.3	7.3	7.8	2.6	1.6	0.5	11.0	5.5	2.1
ID11-XX-10-B-XXX	3500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	0.5	17.6	8.8	3.6
ID11-XX-20-B-XXX	4500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.5	13.2	6.6	2.4
ID11-XX-30-B-XXX	6000	11.2	11.2	11.7	9.8	9.8	10.3	2.6	1.6	0.5	12.1	6.1	2.5
ID11-XX-40-B-XXX	7000	8.4	8.4	8.6	7.4	7.4	7.8	2.6	1.6	0.5	11.0	5.5	2.1

Please refer to the product data sheet for the definition of Model No.

## ID12



**Input:** 12 / 24 / 48V DC  
**Max. Rated Load:** 3500N (ACME screw)  
 7000N (Ball screw)  
**Max. Static Load:** 7500N (ACME screw)  
 13600N (Ball screw)  
**Max. Speed at No Load:** 72.1mm/s  
**Stroke:** 100 / 150 / 200 / 300 / 450 /  
 600mm  
**Duty Cycle:** 25%

**IP Level:** IP66/IP69K (Static; non-action)  
**Min. Installation Dimension:** 166mm+Stroke  
**ACME screw type or Ball screw type**  
**Overload protection by clutch**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Built-in limit switches  
 External adjustable reed switch  
 Manual drive socket  
 MB30 mounting bracket



EXTERNAL ADJUSTABLE  
 REED SWITCH

Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)						Typical Current (A)					
		No Load			Full Load			No Load			Full Load		
		12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
ID12-XX-10-A-XXX	1500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	1.4	17.6	8.8	3.6
ID12-XX-20-A-XXX	2500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.8	13.2	6.6	2.4
ID12-XX-40-A-XXX	3500	8.4	8.4	8.6	7.3	7.3	7.8	2.6	1.6	0.5	11.0	5.5	2.1
ID12-XX-05-B-XXX	2500	67.1	67.1	72.1	47.2	47.2	57.5	3.4	2.6	0.5	26.4	13.2	5.5
ID12-XX-10-B-XXX	3500	33.5	33.5	36.5	26.7	26.7	29.1	2.6	1.6	0.5	17.6	8.8	3.6
ID12-XX-20-B-XXX	4500	16.8	16.8	17.8	14.3	14.3	15.3	2.6	1.6	0.5	13.2	6.6	2.4
ID12-XX-30-B-XXX	6000	11.2	11.2	11.7	9.8	9.8	10.3	2.6	1.6	0.5	12.1	6.1	2.5
ID12-XX-40-B-XXX	7000	8.4	8.4	8.6	7.4	7.4	7.8	2.6	1.6	0.5	11.0	5.5	2.1

## IA5



**Input:** 115 / 230V AC  
**Max. Push Load:** 3500N (ACME screw)  
 7000N (Ball screw)  
**Max. Static Load:** 4500N (ACME screw)  
 13600N (Ball Screw)  
**Max. Speed at No Load:** 52.8mm/s  
**Stroke:** 102 / 153 / 203 / 254 / 305 /  
 457 / 610mm  
**Duty Cycle:** 25%

**IP Level:** IP54 (Static; non-action)  
**Min. Installation Dimension:** 160mm+Stroke  
**ACME screw type or Ball screw type**  
**Overload protection by clutch**  
**Certified:** CE, EMC directive 2014/30/EU,  
 LVD directive 2014/35/EU, UL 1004-1  
**Option:**  
 Potentiometer  
 Built-in limit switches  
 MB30 mounting bracket  
 IP65 (Static; non-action)



WITH POTENTIOMETER

Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)				Typical Current (A)			
		No Load		Full Load		No Load		Full Load	
		115V	230V	115V	230V	115V	230V	115V	230V
IA5-XXX-10-A-XXX	1500	26.5	21.8	22.9	17.5	2.8	1.8	3.1	1.8
IA5-XXX-20-A-XXX	2500	13.1	10.8	11.8	9.3	2.7	1.9	2.7	1.9
IA5-XXX-40-A-XXX	3500	6.6	5.4	6.0	4.9	2.7	1.9	2.7	1.9
IA5-XXX-05-B-XXX	2500	52.8	43.5	40.8	29.0	2.8	1.8	3.5	1.8
IA5-XXX-10-B-XXX	3500	26.5	21.8	22.9	17.5	2.8	1.8	3.1	1.8
IA5-XXX-20-B-XXX	4500	13.1	10.8	11.8	9.3	2.7	1.9	2.7	1.9
IA5-XXX-30-B-XXX	6000	8.7	7.2	7.9	6.3	2.7	1.9	2.7	1.9
IA5-XXX-40-B-XXX	7000	6.6	5.4	6.0	4.9	2.7	1.9	2.7	1.9

# Linear Actuator

## MK35



### SAE J1939 Can Bus

**Input:** 12 / 24V DC  
**Max. Rated Load:** 10000N  
**Max. Static Load:** 18000N  
**Max. Speed at No Load:** 66mm/s  
**Stroke:** 100~1000mm  
**Duty Cycle:** 15~25%  
**Operating Temperature:** -40°C~+80°C

**IP Level:** IP66 (dynamic) and IP67/IP69K (static)  
**Min. Installation Dimension:** 190mm+Stroke  
**Ball screw type**  
**Manual drive capable**  
**Preset limit switches**  
**Overload protection by current detection**  
 (DC control, without voltage and temperature detection)  
**Soft start / stop**  
**Compliant with CE, EMC directive 2014/30/EU, RoHS**  
**Control option:**  
 DC control, without positioning feedback.  
 DC control + EoS  
 DC control + Potentiometer + EoS  
 DC control + Dual Hall effect sensors (NPN) + EoS  
 DC control + Dual Hall effect sensors (PNP) + EoS  
 Low current signal control + EoS  
 Low current signal control + Potentiometer + EoS  
 Low current signal control + Dual Hall effect sensors (NPN) + EoS  
 J1939 CAN Bus



Model No.	Gear Type	Max. Push/Pull Load (N)	Duty Cycle (%)	Typical Speed (mm/s)		Typical Current (A)			
				No Load	Full Load	No Load		Full Load	
						12V	24V	12V	24V
MK35-24-G5B-05	5	1700	25	66	49	3.0	1.5	18	9
MK35-24-G5B-10	10	2600	25	40	29	3.0	1.5	18	9
MK35-24-G5B-15	15	4500	25	24	17	3.0	1.5	18	9
MK35-24-G5B-20	20	6800	25	18	13	3.0	1.5	20	10
MK35-24-G5B-30	30	10000	15	11	8	3.0	1.5	18	9

## ID10S



**Input:** 12 / 24V DC  
**Max. Rated Load:** 4500N (ACME screw)  
 7000N (Ball screw)  
**Max. Static Load:** 13600N (ACME screw)  
 17100N (Ball screw)  
**Max. Speed at No Load:** 5.5mm/s  
**Stroke:** 450 / 600 / 900mm  
**Duty Cycle:** 25%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 314mm+Stroke  
**ACME screw type or Ball screw type**  
**Overload protection by clutch**  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU, UKCA  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Reed sensor  
 Stainless steel extension tube  
 Aluminum back cover



Model No.	Max. Dynamic Load (N)	Typical Speed (mm/s)		Typical Current (A)			
		No Load	Full Load	No Load		Full Load	
				12V	24V	12V	24V
ID10S-XX40E5BXXX-XXXXXXX	9000	5.5	4.4	1.8	0.9	7.2	3.6
ID10S-XX40E5AXXX-XXXXXXX	5500	5.5	4.4	1.8	0.9	7.8	3.9

**ID16**

**Input:** 24V DC  
**Rated Load:** 5500N  
**Max. Static Load:** 13600N  
**Max. Speed at No Load:** 3.3mm/s  
**Stroke:** 450 / 600 / 900mm  
**Duty Cycle:** 10%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 363mm+Stroke  
**ACME screw type**  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Reed sensor



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
ID16-24D5AXXX-XXXX0XX	5500	3.3	2.6	0.5	2.3

**ID18**

**Input:** 24 / 36V DC  
**Rated Load:** 9000N (ACME screw)  
 12000N (Ball screw)  
**Max. Static Load:** 36000N  
**Max. Speed at No Load:** 3.3mm/s  
**Stroke:** 610 / 914 / 1219mm  
**Duty Cycle:** 10%

**IP Level:** IP65 (Static; non-action)  
**Min. Installation Dimension:** 453mm+Stroke  
**ACME screw type or Ball screw type**  
**Customized clamp or trunnion**  
**Preset limit switches**  
**Certified:** CE, EMC directive 2014/30/EU  
**Option:**  
 Hall effect sensor  
 Potentiometer  
 Reed sensor



TRUNNION  
MOUNT

Model No.	Max. Push/Pull Load (N)	Input Voltage (V DC)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
ID18-2458S3AXXX-XXXXXXX	9000	24	2.0	1.5	0.4	4.0
ID18-3658S3AXXX-XXXXXXX	9000	36	2.0	1.5	0.4	2.5
ID18-2458S5BXXX-XXXXXXX	12000	24	3.3	2.7	0.4	2.4
ID18-3658S5BXXX-XXXXXXX	12000	36	3.3	2.7	0.4	1.8

# Linear Actuator

## MK7L



**Input:** 12 / 48V DC  
**Max. Rated Load:** 10000N  
**Max. Static Load:** 13600N  
**Max. Speed at No Load:** 33mm/s  
**Stroke:** 203 / 254 / 305mm  
**Duty Cycle:** 10%

**IP Level:** IP66 / IP67 / IP69K (Static; non-action)  
**Min. Installation Dimension:** 296mm+Stroke  
**Ball screw type**  
**Preset limit switches**  
**Actuator includes driver board**  
**Equipped with brushless DC (BLDC) motor**  
**Soft start / stop**



Model No.	Max. Push/Pull Load (N)	Input Voltage (V DC)	Typical Speed (mm/s)		Typical Current (A)	
			No Load	Full Load	No Load	Full Load
MK7L-12-M5B-30-XXX-00X0L9X	10000	12	33	25	4	45
MK7L-48-M5B-30-XXX-00X0L9X	10000	48	33	25	0.6	9

**SW10****Swing Gate Series - Actuator Type**

Max. Leaf Length: 1.5m  
Max. Leaf Weight: 100kg  
Input: 12V DC  
IP Level: IP44  
Duty Cycle: 20%  
Operating Temperature: -20°C~+60°C

**SW12****Swing Gate Series - Actuator Type**

Max. Leaf Length: 1.75m  
Max. Leaf Weight: 150kg  
Input: 12V DC  
IP Level: IP44  
Duty Cycle: 20%  
Operating Temperature: -20°C~+60°C

**SW42****Swing Gate Series - Actuator Type**

Max. Leaf Length: 2m  
Max. Leaf Weight: 200kg  
Input: 12V DC  
IP Level: IP44  
Duty Cycle: 20%  
Operating Temperature: -20°C~+60°C



# Control Box

## T-control



**Input:** 100 / 120 / 230 / 100~240V AC  
**Output:** 24V DC (EI transformer) or 29V DC (SMPS)  
**Output Rated Current:** 3A in total  
**Number of Actuator:** 1~3  
**Number of Control:** 1  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** II  
**Certified:**  
UL1310, PSE, C-Tick, RoHS, CE,  
EMC directive 2014/30/EU,  
LVD directive 2014/35/EU,  
EMF EN62233, IEC60068, ISTA  
**Emergency lowering function with backup batteries**  
**Can be mounted on FD60**  
**Color:** Black or Light grey RAL7001



FD60+T-control

## CBT2



**Input:** 100 / 120 / 230 / 100~240V AC  
**Output:** 24V DC (EI transformer) or 29V DC (SMPS)  
**Output Rated Current:** 3A (per channel)  
**Number of Actuator:** 1~3  
**Number of Control:** 1  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** I / II  
**Certified:**  
CE, EMC directive 2014/30/EU,  
LVD directive 2014/35/EU, RoHS, FCC  
**Emergency lowering function with backup batteries**  
**Can be mounted on FD60**  
**Detachable AC power cord**  
**Color:** Black or Light grey RAL7001



## CB3T



**Input:** 120 / 230 / 100~240V AC  
**Output:** 24V DC (EI transformer) or 29V DC (SMPS)  
**Output Rated Current:** 3A per channel for CB3T, 5.0A in total for CB3T-SY  
**Number of Actuator:** 1~3  
**Number of Control:** 1  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** II  
**Compliant with CE, EMC directive 2014/30/EU,**  
LVD directive 2014/35/EU  
**Option:** Synchronization of 2 actuators (CB3T-SY)



**CB4M**

**Input:** 110 / 230V AC  
**Output:** 24V DC (EI transformer)  
**Output Rated Current:** 3A (per channel)  
**Number of Actuator:** 2~4  
**Number of Control:** 1~2  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** I, II  
**Certified:**  
 CE, EMC directive 2014/30/EU,  
 LVD directive 2014/35/EU  
**Option:**  
 Rechargeable batteries 12V DC 1.3Ah\*2  
 Charger function  
 Synchronization for 2~4 Actuators  
 Detachable AC power cord

**CF11H**

**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Output Rated Current:** 3.6A (per channel)  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** II  
**Compliant with CE, EMC directive 2014/30/EU,**  
 LVD directive 2014/35/EU  
**Detachable AC Power cord**

**CF12H**

**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Overload protection current:** 3.6A (per channel)  
**Number of Actuator:** 2~4  
**Number of Control:** 1  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** II  
**Compliant with CE, EMC directive 2014/30/EU,**  
 LVD directive 2014/35/EU  
**Detachable AC Power cord**



# Control Box

## CF12S



**Input:** 100~240V AC  
**Output:** 32V DC (SMPS)  
**Output Rated Current:** 3.6A (per channel)  
**Number of Actuator:** 4 (synchronization)  
**Number of Control:** 1  
**Position memory function**  
**Soft Start / Stop function**  
**Over-current Protection Function**  
**Duty Cycle:** 10%  
**Electric Shock Protection Level:** II  
**Compliant with CE, EMC directive 2014/30/EU,**  
**LVD directive 2014/35/EU**  
**Detachable AC Power cord**



## CS1



**Input:** 29V DC  
**Output:** 29V DC (External SMPS)  
**Output Rated Current:** 3A (per channel)  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**PTC Thermistor Over-current Protection**  
**Duty Cycle:** 10%  
**Compliant with CE, EMC directive 2014/30/EU**  
**Can be mounted on FD60**



CS1+FD60

## CS2



**Input:** 29V DC  
**Output:** 29V DC (External SMPS)  
**Output Rated Current:** 3A (per channel)  
**Number of Actuator:** 2~4  
**Number of Control:** 1  
**Joint movement for 2 actuators**  
**Duty Cycle:** 10%  
**Compliant with CE, EMC directive 2014/30/EU**  
**Can be mounted on FD60**



CS2+FD60

**CS2-BT**

**Input:** 29V DC

**Output:** 29V DC (External SMPS)

**Output Rated Current:** 4.5A (per channel)

**BLE control**

**Number of Actuator:** 2 (Support joint-movement)

**Support two-control box synchronous control**

**Memory function**

**External USB dock**

**External under bed light**

**Operated by Moteck TXQ Bluetooth remote control**

**Customized APP can be provided to control by smart phone**

**Duty Cycle:** 10%

**Can be mounted on FD60**



TXQ Bluetooth remote control  
- Available number of key: 13  
- LED torch (white)  
- Key backlight (blue)

# Control Box

## TX2A



Power supply not included, input and output voltage 29V DC.  
Number of Actuator: 1  
Frequency: 2.4GHz RF  
Operating Distance: 5m  
Spared flat function button  
Remote control pairing button  
LED operation indicator  
Duty Cycle: 10%



## CF13



Input: 100~240V AC  
Output: 29V DC (SMPS)  
Output Rated Current: 2A  
Number of Actuator: 1  
Number of Control: 1  
Anti-pinch function  
Height display (compatible with DKP3, DP07, DP08)  
Over-current protection function  
Memory function  
Soft start / stop function  
Support USB charging port on hand control  
Duty Cycle: 10%  
Electric Shock Protection Level: II  
Compliant with CE, EMC directive 2014/30/EU,  
LVD directive 2014/35/EU  
Detachable AC Power cord



## CF11



Input: 100~240V AC  
Output: 32V DC (SMPS)  
Output Rated Current: 6A in total  
Number of Actuator: 2  
Number of Control: 1  
Synchronization for 2 motors  
Anti-pinch function (CF11D only)  
Height display (compatible with DKP3, DP07, DP08)  
Over-current protection function  
Memory function  
Soft start / stop function  
Support USB charging port on hand control  
Duty Cycle: 10%  
Electric Shock Protection Level: II  
Compliant with CE, EMC directive 2014/30/EU,  
LVD directive 2014/35/EU  
Detachable AC Power cord



**CB2P**

**Input:** 110 / 230V AC  
**Output:** 24V DC (EI transformer) or 29V DC (SMPS)  
**Output Rated Current:** 3A (per channel)  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IP65  
**Electric Shock Protection Level:** II  
**Certified:** CE, EN60601, EN610601  
**Emergency lowering function with backup batteries**  
**Detachable AC Power cord**  
**Can be mounted on MD60, MD66 and MD7**



MD60+CB2P

**CB4P**

**Input:** 110 / 230V AC  
**Output:** 24V DC  
**Power Supply:** Toroidal transformer 156W / 180W / 216W  
**Output Rated Current:** 3A per channel for CB4P, 4.5A per channel for CB4P-SY,  
 1 channel with 9.0A & 3 channels with 3.0A per channel for CB4P-HP.  
**Number of Actuator:** 3~4  
**Number of Control:** 1~2  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IP54, IPX6  
**Electric Shock Protection Level:** I  
**Certified:** CE, EN60601  
**Detachable AC Power cord**  
**Option:**  
 Charger function  
 Rechargeable batteries 12V DC 1.3AH \*2  
 High power version (CB4P-HP)  
 Synchronization for 2 actuators (CB4P-SY)

**CB5P-M****MOTECK Bus**

**Input:** 100~240V AC  
**Output:** 32V DC, 5A @110V / 8A @240V (SMPS)  
**Output Rated Current:** 5A per channel  
**Number of Actuator:** 3~5  
**Number of Control:** 1~2  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX5  
**Electric Shock Protection Level:** I, II  
**Certified:** CE, EN60601  
**Detachable AC Power cord**  
**Battery level detection function**  
**Option:** Rechargeable batteries 12V DC 1.3Ah \*2



# Control Box

## MD6C-M



MOTECK Bus

**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Output Rated Current:** 5A (per channel)  
**Number of Actuator:** 1~4  
**Number of Control:** 1  
**Over-current protection function**  
**Support positioning memory function**  
**Duty Cycle:** 10%  
**IP Level:** IPX5  
**Electric Shock Protection Level:** II  
**Certified:** CE, EN60601, EN610601  
**Emergency lowering function with backup batteries**  
**Detachable AC Power cord**  
**Can be mounted on MD60 and MD66**  
**Option:**  
Charging function for external BTP2 backup battery



MD60+MD6C-M

## MD6C



**Input:** 100 / 120 / 230V AC  
**Output:** 24V DC (EI transformer)  
**Output Rated Current:** 5A (per channel)  
**Number of Actuator:** 1~4  
**Number of Control:** 1~2  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX5  
**Electric Shock Protection Level:** II  
**Certified:** CE, EN60601, EN610601  
**Emergency lowering function with backup batteries**  
**Detachable AC Power cord**  
**Can be mounted on MD60 and MD66**



MD60+MD6C

## MD7C



**Input:** 100 / 120 / 230V AC  
**Output:** 24V DC (EI transformer)  
**Output Rated Current:** 3A per channel  
**Number of Actuator:** 1~4  
**Number of Control:** 1~2  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX4 / IPX5  
**Electric Shock Protection Level:** I  
**Certified:** CE, EN60601, EN610601  
**Emergency lowering function with backup batteries**  
**Detachable AC Power cord**  
**Can be mounted on MD7**



MD7+MD7C

**CM23**

**Max. Input:** 29V AC  
**Max. Output:** Same as max. input voltage  
**Output Rated Current:** 4A (1 channel), 6A (2 channels total)  
**Number of Actuator:** 2  
**Number of Control:** 1  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX6  
**Certified:** CE, EN60601  
**LED Power on indicator**  
**Option:** Built-in RF receiver

**CM41-M****MOTECK Bus**

**Input:** 100~240V AC  
**Output:** 32V DC, 5A @110V / 8A @ 240V (SMPS)  
**Number of Actuator:** 1~4  
**Number of Control:** 1  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX6  
**Electric Shock Protection Level:** II  
**FET Control concept** (no relay noise)  
**Standby Power:** <0.5W  
**Certified:** CE, EN60601  
**Detachable AC Power cord**  
**Can be mounted on MK31-QR**  
**Option:**  
 Battery level detection function  
 Charging function for external BTP3 backup battery



MK31-QR+CM41-M

**CM45**

**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Output Rated Current:** 5A in total  
**Number of Actuator:** 1~4  
**Number of Control:** 1  
**Over-current protection function**  
**Duty Cycle:** 10%  
**IP Level:** IPX5  
**Electric Shock Protection Level:** II  
**Certified:** CE, EN60601  
**LED Power on indicator**  
**PTC overload protection**  
**Detachable AC Power cord**  
**Can be mounted on MD66**



MD66+CM45

# Control Box

## CBP2



**Input:** 100~240V AC  
**Output:** 24V DC  
**Output protection current:** 7A (lifting actuator) / 3A (U base legs spreading actuator)  
**Power Supply:** Internal or external SMPS charger  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Duty Cycle:** 10%  
**IP Level:** IP66 (internal SMPS) / IPX4 (external SMPS)  
**Electric Shock Protection Level:** II  
**Emergency stop button**  
**LCD display shows status info or error code**  
**Certified:** CE, EN60601, UL60601  
**Detachable AC Power cord**  
**Option:** LED indication of charging and usage status / Lead-acid battery (5.0Ah) inside / Charge with CBP2 control box, or charge with CHP1 battery charger.



CHP1 Charger

BTP1 Battery Pack

## CBP3



**Input:** 100~240V AC  
**Output:** 24V DC  
**Overload Protection Current on Lifting Actuator:** 5~9A (on demand)  
**Power Supply:** Internal or external SMPS charger  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Duty Cycle:** 10%  
**IP Level:** IP66 (internal SMPS) / IPX4 (external SMPS)  
**Electric Shock Protection Level:** II  
**Emergency stop button**  
**LCD display shows status info or error code**  
**History record of abnormal usage**  
**Connect PC to access history records or setting function**  
**Certified:** CE, EN60601, RoHS  
**Detachable AC Power cord**  
**Option:** LED indication of charging and usage status / Lead-acid battery (5.0Ah) inside / Charge with CBP3 control box, or charge with CHP1 battery charger.



CHP1 Charger

BTP1 Battery Pack

## CM42



**Built-in battery charging power supply, input:** 100~240V AC  
**Powered by lead-acid batteries, output:** 24V DC  
**Overload Protection Current on Lifting Actuator:** 5~9A (on demand)  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Actuator slow start function makes the movement smooth**  
**Auto power off**  
**Emergency stop button**  
**Backup lower down button**  
**LED indication of charging and usage status**  
**Buzzer sounds if low battery**  
**Duty Cycle:** 10%  
**IP Level:** IPX4  
**Electric Shock Protection Level:** II  
**Certified:** CE, EN60601  
**Option:** Battery capacity 2.9Ah or 5Ah



**CM43**

**Input:** 100~240V AC  
**Output:** 24V DC  
**Overload Protection Current on Lifting Actuator:** 5~9A (on demand)  
**Number of Actuator:** 1~2  
**Number of Control:** 1  
**Auto power off**  
**Emergency stop button**  
**LED indication of charging and usage status**  
**Buzzer sounds if low battery**  
**Duty Cycle:** 10%  
**IP Level:** IPX4  
**Electric Shock Protection Level:** II  
**Compliant with CE, EN60601**  
**Option:**  
 Battery capacity 2.9Ah or 5Ah  
 Charge with CM43 control box, or charge with CH43 battery charger.



CH43 Charger

BT43 Battery Pack

**CF16**

**Input:** 24V DC  
**Output:** 24V DC  
**Overload Protection:** 2.4A max.  
**Power supply provided by the customer**  
**Number of Actuator:** 1  
**Multi-controller connection is possible**  
**Duty Cycle:** 10%  
**Fire alarm signal to open the window or shutters mandatorily**  
**Rain to close the window or shutters**  
**Support wireless remote control**  
**Recommend to use with MK45**

**CB3T-SYD**

**Input:** 12V DC/AC  
**Output:** 12V DC  
**Max. Current:** 5A per channel  
**Number of Actuator:** 2 (synchronization)  
**Number of Control:** 1  
**Over-current protection function**  
**Duty Cycle:** 10%  
**Certified:** CE, EMC directive 2014/30/EU



# Control Box

## CI10



**Input:** 110 or 230V AC (adjustable)  
**Output:** 24V DC  
**Max. Current:** 10A  
**Power Supply:** 216W (24V, 9A) toroidal transformer  
**Number of Actuator:** 1  
**No need for hand control**  
**Duty Cycle:** 10%  
**Emergency stop button**  
**Equipped with switch for movement control**  
**LED Power on indicator**  
**Support external backup battery (24V)**  
**2nd Output for Supplementary Device:** 24V DC @350mA max.  
**Recommend to use with ID10, ID10BT, ID11, ID12**



## CI71



**Input:** 12V DC  
**Output:** 12V DC  
**Input Current:** 25Amps  
**Number of Actuator:** 1  
**Number of Control:** 1  
**Must be purchased with Moteck's actuators**  
**Recommend to use with ID10, ID10G, ID10K, ID11, ID12**



## CI72



**Input:** Nominal 12/24V DC (acceptable input voltage range 9V~32V DC)  
**Number of Actuator:** Max. 2 (synchronous move)  
**Max. current:** 25A (per channel)  
**Use the DIP switch to set the following function parameters:**

- Switch control or servo control (position input) mode
- Single actuator or 2 actuators
- POT or Hall sensor (NPN type only) positioning feedback
- Adjustable soft start/stop

**Over-current protection setting**  
**Duty Cycle:**

- 2 x 20A at 15% duty cycle, max. 40 sec. continuous operation in 4.5 min.
- 2 x 10A at 40% duty cycle, max. 2 min. continuous operation in 5 min.

**Option:** Mounting kit (for mounting on DIN NS 32 or NS 35/7.5 rail)



**CIS1****Synchronization Control Box**

**Input:** 24V DC  
**Output:** 24V DC  
**Max. Current:** 7.5A per channel  
**Number of Actuator:** 2  
**Duty Cycle:** 10%  
 Synchronization for 2 actuators  
 Work with signals of Hall effect sensor or reed sensor  
 Memory function

**CIS2****Synchronization and High Current Control Box**

**Input:** 12V DC  
**Output:** 12V DC  
**Max. Current:** 10A per channel  
**Number of Actuator:** 2  
**Duty Cycle:** 10%  
 Synchronization for 2 actuators  
 Work with signals of Hall effect sensor or reed sensor  
 Memory function  
 Battery charging function (AC or solar input)  
 Software limit protection  
 Certified: CE, EMC directive 2014/30/EU

**CIS3****Synchronization and High Current Control Box**

**Input:** 24V DC  
**Output:** 24V DC  
**Max. Current:** 10A per channel  
**Number of Actuator:** 2  
**Duty Cycle:** 10%  
 Synchronization for 2 actuators  
 Work with signals of potentiometer  
 Memory function

**GCC1**

**Input:** 110 / 230V AC, 60 / 50Hz  
**Output:** 12V DC / 80W Max.  
**IP Level:** IP44



# Control (Signal)

## HC



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10  
LED power on indicator  
With hook  
Option: Joint movement or synchronization for 2 motors



## HD



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10  
LED power on indicator  
With hook  
Option: Joint movement for 2 motors



## H2D



Motor Number to Control: 3, 4  
Available Number of Button: 8, 10, 12  
IP Level: IPX4  
LED power on indicator  
With hook  
Option:  
Joint movement for 2 motors  
Nurse lock



## HF



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10  
IP Level: IPX4  
LED power on indicator  
With hook  
Option:  
Joint movement for 2 motors  
Safety key



## H3F



Motor Number to Control: 1, 2, 3  
Available Number of Button: 2, 4, 6, 8  
IP Level: IPX4 / IPX6  
Button backlight (blue)  
With hook  
Option: Joint movement for 2 motors



## HI



Motor Number to Control: 1, 2, 3  
Available Number of Button: 2, 4, 6, 8, 9  
IP Level: IPX4  
With hook  
Option:  
Joint movement for 2 motors  
Memory function  
Safety key



**HJ**

**Motor Number to Control:** 1, 2, 3  
**Available Number of Button:** 2, 4, 6  
**LED power on indicator**  
**With hook**  
**Option:**  
 Joint movement for 2 motors  
 Magnetic back cover

**HM**

**Motor Number to Control:** 1, 2, 3  
**Available Number of Button:** 2, 4, 6, 8  
**LED power on indicator**  
**With hook**  
**Option:**  
 Joint movement or synchronization for 2 motors  
 Memory function  
 Safety key

**HS23**

**Motor Number to Control:** 1, 2, 3, 4  
**Available Number of Button:** 13 Max.  
**With hook**  
**Option:** Magnet

**H2N**

**Motor Number to Control:** 1, 2, 3  
**Available Number of Button:** 2, 4, 6, 7, 9  
**LED torch (white)**  
**With hook**  
**Option:**  
 Joint movement for 2 motors  
 Holder without hook

**H3N**

**Motor Number to Control:** 1, 2  
**Available Number of Button:** 3, 5, 6, 7, 8, 10  
**LED power on indicator**  
**LED torch (blue)**  
**Button backlight (green)**  
**With hook**  
**Option:**  
 Joint movement for 2 motors  
 Memory function  
 Holder with or without hook  
 Color (textured black or matt black)

**H4N**

**Motor Number to Control:** 1, 2  
**Available Number of Button:** 5, 7, 8, 10  
**LED torch (blue)**  
**With hook**  
**Option:**  
 Joint movement for 2 motors  
 Button backlight (blue, triggered by G-sensor or button)  
 Memory function  
 Holder with or without hook



# Control (Signal)

## H2Z



Motor Number to Control: 1, 2  
Available Number of Button: 2, 4, 6  
LED power on indicator  
With hook  
Option: Joint movement for 2 motors



## HDU



Motor Number to Control: 1, 2  
Max. Button Number: 2, 4



## HR



Motor Number to Control: 1 pc / pair  
Max. Button Number: 2



## HT



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10  
IP Level: IPX4 / IPX5  
LED power on indicator  
With hook  
Compatible with CBP2 / CBP3 / CM42 / CM43  
Option:  
Joint movement for 2 motors  
Nurse lock  
Safety key



## H3T



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10  
IP Level: IPX4  
LED power on indicator  
With hook  
Option:  
Joint movement for 2 motors  
Nurse lock



## HS12



Motor Number to Control: 1, 2, 3, 4  
Available Number of Button: 2, 4, 6, 8, 10, 12  
IP Level: IPX6  
LED power on indicator  
With hook  
Option:  
Joint movement for 2 motors  
Nurse lock



**HS12-M**

MOTECK Bus

Moteck proprietary MOTECK Bus protocol  
 Motor Number to Control: 2, 3, 4, 5  
 Available Number of Button: 6, 8, 11, 12  
 IP Level: IPX6  
 LED power on indicator  
 With hook  
 Option: Button backlight

**H3T-M**

MOTECK Bus

Moteck proprietary MOTECK Bus protocol  
 Motor Number to Control: 1, 2, 3, 4  
 Available Number of Button: 6, 8, 10  
 IP Level: IPX4  
 LED power on indicator  
 With hook

**CP1**

MOTECK Bus

Moteck proprietary MOTECK Bus protocol  
 Available Number of Button: 21 max.  
 Number of LED Power on Indicator: 21 max.  
 IP Level: IPX6  
 Battery level indicator  
 With hook

**CP2**

MOTECK Bus

Moteck proprietary MOTECK Bus protocol  
 Available Number of Button: 29 max.  
 Number of LED Power on Indicator: 11 max.  
 IP Level: IP66  
 LCD display patient's weight and the status of bed  
 With hook

**FS1**

Motor Number to Control: 1  
 Max. Button Number: 2  
 IP Level: IP54 / IP66  
 Certified: CE, EN60601, RoHS  
 Option: Color (RAL7035 or black)

**FS2**

Motor Number to Control: 1, 2, 3  
 Available Number of Button: 2, 4, 6 (consists of 1~3 units)  
 IP Level: IP54 / IP66  
 LED power on indicator  
 Certified: CE, EN60601



# Control (Signal)

## HTF



Motor Number to Control: 1, 2  
Available Number of Button: 2, 4  
IP Level: IPX5  
With hook  
Compatible with CBP2 / CBP3 / CM42 / CM43  
Option: Safety key



## H2T



Motor Number to Control: 1, 2  
Available Number of Button: 2, 4, 5  
IP Level: IPX6  
LED: Indicators for power on, battery condition, service reminder and overload alarm.  
With hook  
Compatible with CBP3 / CM42 / CM43



## HS12L



Motor Number to Control: 1, 2  
Available Number of Button: 2, 4  
IP Level: IPX6  
With hook  
Compatible with CBP2 / CBP3 / CM42 / CM43  
Option: With / without indicators for overload, usage warning, and battery level indication.



## DKP4



Max. Button Number: 2



## DP11



Max. Button Number: 2  
LED power on indicator



## DP05



Max. Button Number: 2  
Touch control button  
Option: Color (white or black)



**DKP3**

Max. Button Number: 7  
 Number of Memory Position: 4  
 3-Digit LED display (height read-out and error code)

**DP07**

Max. Button Number: 6  
 Number of Memory Position: 3  
 3-Digit LED display (height read-out and error code)  
 Sliding mounting bracket  
 Option: USB Charging port for 3C devices



USB Charging Port

**DP08**

Max. Button Number: 6  
 Number of Memory Position: 3  
 3-Digit LED display (height read-out and error code)  
 Option: USB Charging port for 3C devices



USB Charging Port



# Control (Direct-cut)

## HB



Motor Number to Control: 1  
Max. Button Number: 2  
With hook



## HS13



Motor Number to Control: 1, 2  
Available Number of Button: 2, 4  
LED power on indicator  
IP Level: IPX6  
With hook



## HS15



Motor Number to Control: 2, 3  
Available Number of Button: 6, 8  
LED power on indicator  
Nurse lock  
With hook  
Option:  
Joint movement for 2 motors  
Color (light grey RAL7035 or black)  
Detachable cable set



## HS21



Motor Number to Control: 1, 2  
Available Number of Button: 3, 5  
Option: Joint movement for 2 motors



## HS22



Motor Number to Control: 2  
Available Number of Button: 6  
Joint movement for 2 motors



## HS02



Input / Output: 29V DC  
Input / Output Current: 2A  
Motor Number to Control: 1  
Max. Button Number: 2



**HZ01**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 2  
 Max. Button Number: 4

**Option:**

USB port for charging  
 Button texture (matte or glossy)



GLOSSY BUTTON

MATTE BUTTON WITH  
USB PORT**HZ02**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 1  
 Max. Button Number: 2

**HZ03**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 1  
 Max. Button Number: 2  
 Option: Button texture (matte or glossy)



GLOSSY BUTTON



MATTE BUTTON

**HZ04**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 1  
 Max. Button Number: 2  
 Option: USB port for charging

**HZ05**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 1  
 Max. Button Number: 2  
 Option: USB port for charging

**HZ06**

Input / Output: 29V DC  
 Input / Output Current: 2A  
 Motor Number to Control: 1  
 Max. Button Number: 2



# Control (Direct-cut)

---

**TPSL**



Input / Output: 29V DC  
Input / Output Current: 2A  
Motor Number to Control: 1  
Max. Touch Button Number: 2



# Control (2.4GHz RF)

## TXC



**Motor Number to Control:** 2, 3  
**Available Number of Button:** 5, 7, 9  
**Battery:** AAA\*3  
**LED torch (white)**  
**Button backlight (blue)**  
**Certified:** CE, RED Directive 2014/53/EU  
**Option:**  
 Joint movement for 2 motors  
 With hook



## TXH



**Motor Number to Control:** 1, 2, 3  
**Available Number of Button:** 2, 4, 6, 8, 9  
**Battery:** AAA\*2  
**LED power on indicator**  
**With hook**  
**Safety lock**  
**Certified:** CE, RED Directive 2014/53/EU  
**Option:**  
 Joint movement for 2 motors  
 Memory function



## TXT



**Motor Number to Control:** 1, 2  
**Available Number of Button:** 3, 5, 6, 7, 8, 10  
**Battery:** AAA\*2  
**LED torch (amber)**  
**Button backlight (green)**  
**With hook**  
**Option:**  
 Joint movement for 2 motors  
 Memory function  
 Holder with or without hook  
 Color (textured black or matt black)



## TX2T



**Motor Number to Control:** 2  
**Available Number of Button:** 5, 7, 8, 10  
**Battery:** AAA\*3  
**LED torch (blue)**  
**Holder with hook**  
**Option:**  
 Backlight (blue)  
 Joint movement for 2 motors  
 Memory function  
 Holder with or without hook



## TXZ



**Motor Number to Control:** 1, 2  
**Max. Button Number:** 2, 4, 6  
**Battery:** AAA\*2  
**LED power on indicator**  
**Safety lock in the back**  
**With hook**  
**Certified:** CE, RED Directive 2014/53/EU  
**Option:** Joint movement for 2 motors



## TX02



**Motor Number to Control:** 1, 2  
**Max. Button Number:** 2  
**Battery:** AAA\*2  
**Operation indicator**



# Control (433.92MHz RF)

## X3R



### Remote Control

Frequency: 433.92MHz RF with rolling code  
4 buttons, up to 10 channels.  
Battery: 3V/CR2032



## RKP2



### Wireless Keypad

Frequency: 433.92MHz RF with rolling code  
12 buttons  
Battery: 9V Alkaline battery



# APP CONTROL

CUSTOMIZED FOR IOS/ANDROID PLATFORM  
INTEGRATING ERGONOMIC TECHNOLOGY



# Accessory

**FL2**



## Floorlight

Input: 5V DC  
IP Level: IPX6  
LED neutral white



**FL3**



## Floorlight

Input: 24V DC  
LED neutral white



**JB1**



MOTECK Bus

## Junction Box and Under Bed Light

Work with MOTECK Bus protocol  
Connection Ports: Total 5  
IP Level: IPX5  
Option:  
White LED for under bed light  
Built-in RF receiver (2.4GHz)



**JB3**



MOTECK Bus

## Junction Box

Work with MOTECK Bus protocol  
Connection Ports: Total 8  
IP Level: IPX6  
Support max. 5x ports for MoBus control  
Support max. 1x port for analog control  
Support max. 1x port for 5V DC lighting switch



**SB1**



## Stop Button

One push to stop all actuators in an emergency  
Turn the button to restore easily  
IP Level: IPX6



**SLS****Dual Switch**

Switch on/off actuator movement  
Available Number of Button: 2  
IP Level: IPX6

**Y Cable**

Connection of additional handset or control box  
Option:

2H1C: 2 handsets work with 1 control box  
1H2C: 1 handset works with 2 control boxes



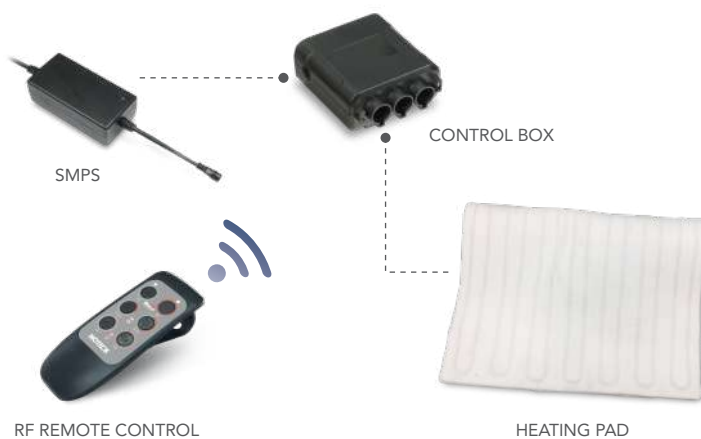
1H2C

2H1C

**CS1H****Heating Pad Set**

Input: 110~230V AC  
Operating Distance: Approx. 8m  
Battery (for RF Remote Control): AAA\*2  
5-level temperature adjustment

Parts Included:



SMPS

CONTROL BOX

RF REMOTE CONTROL

HEATING PAD

**MB22/MB30/C15****Mounting Bracket**

For installing linear actuators  
A variety types available



MB22

MB30

C15

# Accessory

## ESW1



### Key Switch

Number of Switch: 2

Number of Key: 3

Compatible with Moteck gate opener control boxes as a wired security switch.



## LMC1



### Garden Lamp Control Box

Frequency: 433.92 MHz

Input: 230V AC~/ 50Hz

Standby Consumption: 15mA

Working in 2 separate channels

Memory Positions: 30 Max. for 2 channels

Rolling code enabled or disabled

3 operation modes



## WLT1



### Warning Light

Input: 12V DC / 10W

Provide flashing signals during gate movement and obstacle detection.



## IPH1



### Photocells

Current Consumption:

TX: 30mA

RX: 25mA



## ANT1



### Additional Antenna

Frequency: 433.92 MHz

Reliable RF antenna with chromate treatment for weather resistance.

Supplied with 2m coaxial cable

Increase the range of remote control up to 30m.



## ARCV



### Additional Receiver

Frequency: 433.92 MHz

Input: 12V DC

Standby Current: 15mA

Memory Cells: 30 max. for 2 channels

Rolling code inspection

Partial code deletion or replacement



# Accessory (Wireless Receiver)

---

**TXA**



## RF Receiver Adapter

Frequency: 2.4GHz RF

Input: 10~24V DC (TXA4) / 5V DC (TXA5)

Operating Distance: 5m

Work with control box or double motor

Motor Number to Control: 3

Support emergency "All Down" function

LED power on indicator

Option:

Do not support memory function (TXA4)

Support memory function (TXA5)

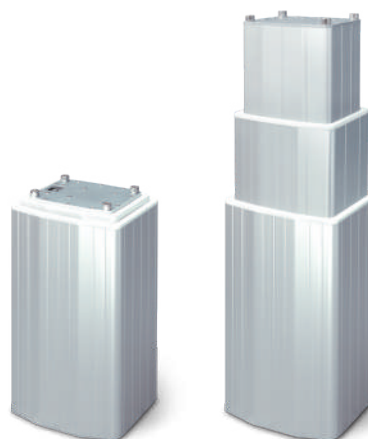


# Lifting Column

## DLC1



**Input:** 24V DC  
**Max. Thrust:** 2000N  
**Typical Speed at No Load:** 10.9mm/s  
**Bending Moment:** 500Nm (static) / 250Nm (dynamic)  
**Stroke:** 50~400mm  
**Duty Cycle:** 10%  
**IP Level:** IPX4  
**Certified:** CE, EN60601  
**Option:**  
 Hall effect sensor  
 IP Level: IPX6



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
DLC1-24RH-350.750-0XX0X	2000	10.9	9.8	1.7	4.1

## DLC2



**Input:** 24V DC  
**Max. Thrust:** 2000N  
**Typical Speed at No Load:** 18mm/s  
**Bending Moment:** 1000Nm (static) / 750Nm (dynamic)  
**Stroke:** 140 / 261 / 450mm  
**Duty Cycle:** 10%  
**Compliant with CE, EMC directive 2014/30/EU**  
**Option:** Hall effect sensor



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
DLC2-24H6-XXX.XXXX-XXXXX	2000	18	13	1.1	4.5

**DLC3**

Input: 24V DC

Max. Thrust: 4000N

Typical Speed at No Load: 16mm/s

Bending Moment: 2000Nm (static) / 1000Nm (dynamic)

Stroke: 260~1200mm

Duty Cycle: 10%

IP Level: IPX6

Compliant with CE, EN60601

Option:

Hall effect sensor

Cable tunnel through column (IPX4)



Model No.	Max. Push/Pull Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
DLC3-24FC-XXXX-XAXX0X	4000	16	13	1.4	8.7

# Gear Motor

## DKM1



### Gear Motor

Input: 24V DC  
Idle Running Speed: 66rpm  
Max. Torque: 5Nm  
Duty Cycle: 10%  
Hollow Shaft: Hexogen 8mm diameter  
With dual Hall sensors



## DKM3



### Gear Motor

Input: 24V DC  
Typical Speed: 62rpm after gear reduction  
Max. Torque: 5Nm  
Duty Cycle: 10%  
Hollow Shaft: Hexogen 6 or 8mm diameter  
With dual Hall sensors  
Recommend to use with CF11D, CF13



## DKM4-LF



### Gear Motor

Input: 24V DC  
Typical Speed: 110rpm after gear reduction  
Max. Torque: 7Nm  
Duty Cycle: 10%  
Hollow Shaft: Hexogen 6mm diameter  
With dual Hall sensors  
Recommend to use with CF11D, CF13  
Compliant with CE, EMC directive 2014/30/EU  
Option:  
Standard motor  
High speed motor



## VM01



### Massage Motor

Input: 24V DC  
Max. Current: 0.5A  
Motor Speed: 1500rpm  
Lifetime: 600 hours  
Overheat protection with PTC thermistor  
Compliant with CE, EMC directive 2014/30/EU  
Option:  
Fixture for board type  
Fixture for slat type



## VM02



### Massage Motor

Input: 24V DC  
Max. Current: 0.7A  
Motor Speed: 3000rpm  
Lifetime: 520 hours  
Built-in thermal fuse  
Certified: CE, EMC directive 2014/30/EU  
Option:  
Fixture for board type  
Fixture for slat type



**SL20****Sliding Gate Series**

Max. Leaf Weight: 200kg

Input: 230V~, 50/60Hz, 150W max.

Length of Tooth Racks: 4m with 8 tooth racks

IP Level: IP44

Duty Cycle: 20%



TOOTH RACK

**SL3D****Sliding Gate Series**

Max. Leaf Weight: 400kg

Input: 230V~, 50/60Hz, 200W max.

Length of Tooth Racks: 4m with 8 tooth racks

IP Level: IP44

Duty Cycle: 20%



TOOTH RACK

**SW32****Swing Gate Series - Arm Type**

Max. Leaf Length: 2.75m

Max. Leaf Weight: 275kg

Input: 12V DC

IP Level: IP44

Duty Cycle: 20%



# Double Motor

## TW61



**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Max. Load:** 2\*6000N  
**Typical Speed at No Load:** 5mm/s  
**Max. Number of Additional Actuator:** 2 channels (24V DC)  
**Max. Number of Control:** 1 channel  
**Duty Cycle:** 10%  
**Stroke:** 29~87mm  
**IP Level:** IP43  
**Color:** Black  
**Electric Shock Protection Level:** II  
**Certified:** CE, EMC directive 2014/30/EU,  
LVD directive 2014/35/EU  
**Emergency lowering function with backup batteries**  
**Option:**  
Position memory with Hall effect sensors  
Color: Light grey (RAL 7035)  
IP Level: IP54



## TW61-RMS



**Input:** 100~240V AC  
**Output:** 29V DC (SMPS)  
**Max. Load:** 2\*6000N  
**Typical Speed at No Load:** 5mm/s  
**Duty Cycle:** 10%  
**Stroke:** 29~87mm  
**IP Level:** IP43  
**Color:** Black  
**Electric Shock Protection Level:** II  
**Synchronization function**  
**Built-in RF Receiver**  
**Memory function**  
**Massage function**  
**Emergency lowering function with backup batteries**



TXM RF Wireless Control  
- Button backlight (blue)  
- LED torch (white)

# BEST LUXURIOUS **ALL-IN-ONE** SOLUTION FOR ADVANCED BOX SPRING BED

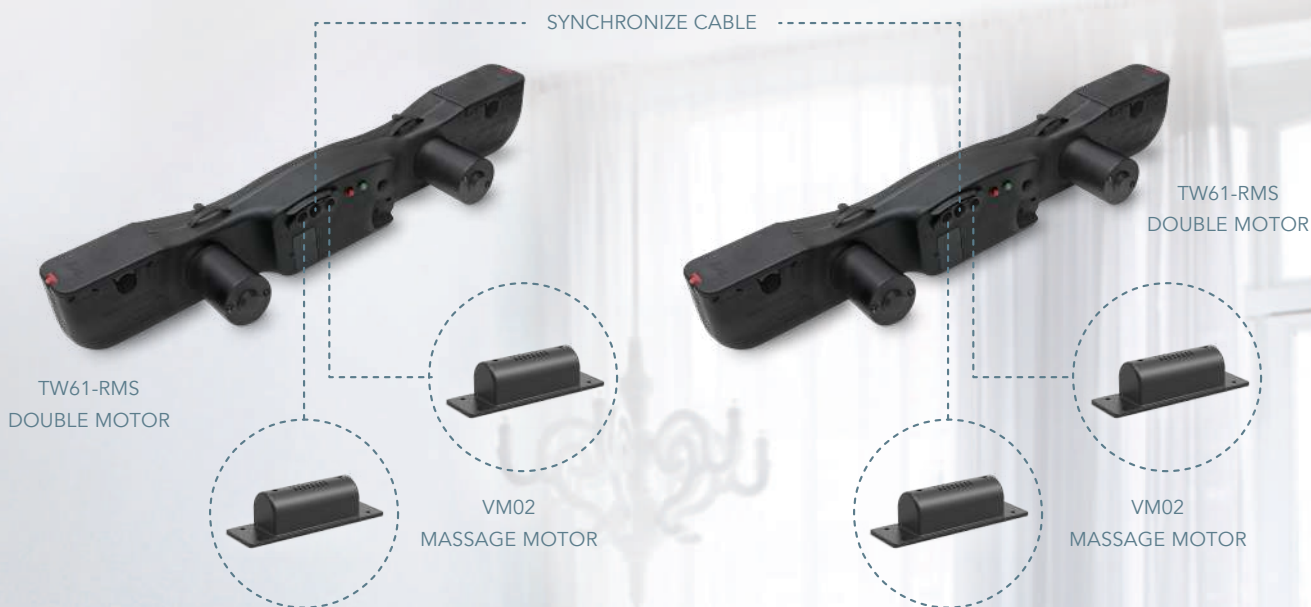
6000N FORCE

BUILT-IN SMPS & 2.4GHz RF RECEIVER

MASSAGE FUNCTION

BACKUP BATTERY FOR EMERGENCY LOWERING

SYNCHRONIZATION FUNCTION WITH A CABLE CONNECTION BETWEEN 2 UNITS



TXM WIRELESS CONTROL



# Power Supply

## DPA-58-2920-C8



### Switching Mode Power Supply (SMPS)

Input: 100~240V AC  
Standby Power Consumption: <0.5W @ no load  
Output: 29V DC, 2A  
Electric Shock Protection Level: II



## DPB-58-2920-C8



### Switching Mode Power Supply (SMPS)

Input: 100~240V AC  
Standby Power Consumption: <0.5W @ no load  
Output: 29V DC, 2A  
Electric Shock Protection Level: II  
Emergency lowering function with backup batteries



## DPA-87-2930-C6



### Switching Mode Power Supply (SMPS)

Input: 100~240V AC  
Standby Power Consumption: <0.5W @ no load  
Output: 29V DC, 3A  
Electric Shock Protection Level: I



## WPA-29-2910-SR



### Switching Mode Power Supply (SMPS)

Input: 100~240V AC  
Standby Power Consumption: <0.5W @ no load  
Output: 29V DC, 1A  
Electric Shock Protection Level: II  
Wall plug type



## DPA-87-2930-C8



### Switching Mode Power Supply (SMPS)

Input: 100~240V AC  
Standby Power Consumption: <0.15W @ no load  
Output: 29V DC, 3A  
Electric Shock Protection Level: II



**CHP1****Charger**

For BTP1 Battery pack  
 Input Voltage: 100 / 120 / 230V AC  
 DC Charger: Max. 800mA  
 Output Voltage: 27V / Max. 25VA  
 Option: LED power on indicator

**BTP1****Battery Pack**

Apply to CBP2, CBP3 and CHP1  
 Output Voltage: 24V / Max. 10VA  
 12V 5Ah x2 Lead-acid batteries  
 Certified: UN38.3, IEC62133  
 Option: Battery level indicator

**CH43****Charger**

For BT43 Battery pack  
 Input Voltage: 100~240V AC  
 Output Current: 0.625A  
 Output Voltage: 24V DC  
 Short circuit protection

**BT43****Battery Pack**

Apply to CM43 and CH43  
 Output Voltage: 24V  
 Option:  
 12V 5Ah x 2 Lead-acid batteries  
 12V 2.9Ah x 2 Lead-acid batteries



Battery 5Ah

Battery 2.9Ah

**BTP3****Battery Box**

Apply to CM41-M  
 Output: 24V DC  
 Charging input voltage: 32V DC  
 1.3Ah Lead-acid battery  
 IP Level: IPX6  
 LED power on indicator  
 Charge ON / OFF buttons

**ZB-B1800****Battery Pack**

Input Voltage: 24~32V DC  
 Input Current: 0.6~3A  
 Output Voltage: 21~29V DC  
 Output Current: 3A  
 Nominal Voltage: 25.2A  
 Over Current Protection: 5A  
 Short circuit protection  
 Capacity: 1800mAH  
 Charge with SMPS



# Power Supply

---

**BKT3**

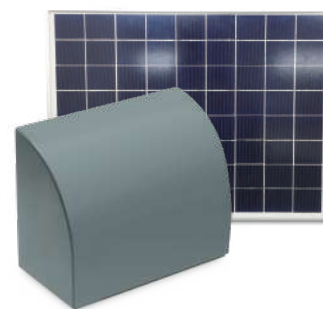
## Battery Box

Include 12V/10Ah rechargeable Lead-acid battery

**BKT5**

## Solar Kit

Battery box\*1 include 24V/4Ah or  
12V/8Ah rechargeable Lead-acid batteries  
20W/18V solar panel\*1





# Adjustable Desk

## DKL2



**Input:** 24~32V DC  
**Max. Load:** 1000N  
**Typical Speed at No Load:** 33mm/s  
**Stroke:** 460mm  
**Retracted Length:** 627mm  
**Duty Cycle:** 10%  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL 962  
**Hall effect sensor**



Input	Max. Push Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
24V DC power supply	1000	33	17	1.2	3.0
CF11D(32V) control box	800 / 1000 *	28	22		

Remarks:

\* When 2 pcs DKL2 are integrated into an adjustable desk with CF11D control box, the max. lifting capability is 800N when the load is put at one side, and is 1000N when the load is put at the center.

## DKL3



**Input:** 24~32V DC  
**Max. Load:** 1200N  
**Typical Speed at No Load:** 45mm/s  
**Stroke:** 650mm  
**Retracted Length:** 553mm  
**Duty Cycle:** 10%  
**Compliant with CE, EMC directive 2014/30/EU**  
**Certified:** UL 962  
**Hall effect sensor**



Input	Max. Push Load (N)	Typical Speed (mm/s)		Typical Current (A)	
		No Load	Full Load	No Load	Full Load
24V DC power supply	1200	45	26	0.8	5.5
CF11D(32V) control box	800 / 1200 *	28~30			

Remarks:

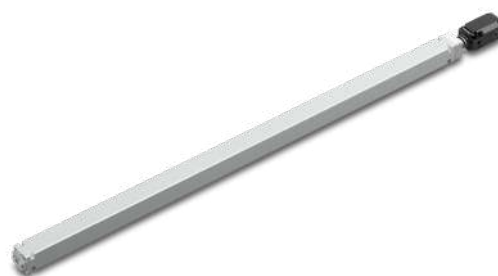
\* When 2 pcs DKL3 are integrated into an adjustable desk with CF11D control box, the max. lifting capability is 800N when the load is put at one side, and is 1200N when the load is put at the center.

**DKS2**

Max. Load: 1000N  
Gear Ratio: 1:1  
Spindle Lead: 8, 12mm  
Stroke: 500mm  
Driven by Hexagon metal rod (diagonal diameter 6mm)  
Installation Length: 555mm

**DKS3**

Max. Load: 700N  
Gear Ratio: 1:1  
Spindle Lead: 16mm  
Stroke: 500mm  
Driven by Hexagon metal rod (diagonal diameter 6mm)  
Installation Length: 629mm





The information contained in this publication has been carefully taken to ensure the accuracy. However, it is the responsibility of the product user to determine the suitability for a specific application. There is no liability can be accepted for any loss or damage whether direct, indirect or consequential occurring out of the operation.

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