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SERVO
ELECTRIC CYLINDER

DH-Robotics Technology Co.,Ltd.

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Features of MCE Series

The MCE series is a miniature electric table type cylinder independently developed and manufactured by DH-Robotics, with high energy density, heavy load capacity, and compact design. It can be applied to various application scenarios to complete complex tasks such as pick and place, arrangement, and handling.

Compact design

Integrated design of motor, drive, and controller.
Compact design with minimum width of only **35 mm**.
The availability of several installation options ensures simple and quick deployment in a confined space.

High linear accuracy

It is driven by a high-accuracy ball screw.
A steel ball is strictly selected to effectively control the clearance of the ball screw so that the high accuracy requirement can be easily met. The positioning repeat-ability can be up to **± 0.003 mm**.

High speed, high efficiency

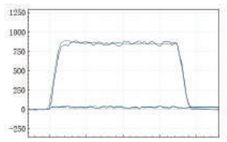
The use of high-performance servo motor and precise ball screw reduces the movement time on the sliding table and improves the movement efficiency with maximum speed up to **1000 mm/s** and maximum acceleration up to **3000 mm/s²**.

High energy density, high load

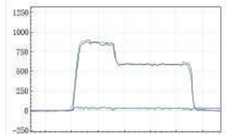
High rigidity structure design. A high-performance linear guide is used with load capacity leading commercially available competing products. The maximum load in the horizontal direction can reach **15 kg**.

Programmable parameters, a variety of motion modes

The position, speed, and thrust parameters are programmable to implement essential functions of pushing, pulling, pressing, and positioning at high speed. Either the position mode or pushing & pressing mode is available.



Position mode



Pushing & pressing mode

Preferred applications

- Lifting in Z-axis
- Pushing & pressing in Z-axis
- Low-stroke handling and pushing & pressing in X-axis

Multiple mounting methods

Various mounting holes and optional outlet direction enable horizontal and vertical multi-sided installation for convenient deployment on the production line.

Side mounting hole

Bottom mounting hole

Backward

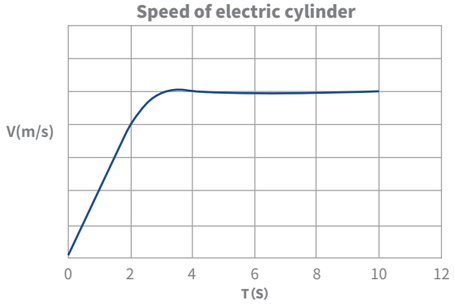
Forward

Advantages of Electric Cylinder over Pneumatic Cylinder

Flexibly adjustable position, force, and speed

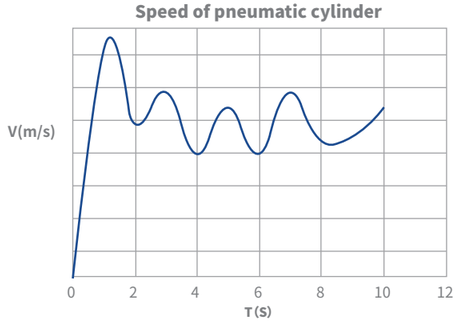
	Electric cylinder	Pneumatic cylinder
Position	1. Multi-location programming 2. The accuracy is determined by the software with positioning repeatability accurate to ±0.02 mm	1. A magnetic switch and a mechanically controlled valve are used to achieve positioning 2. The accuracy is determined by the stopper and installation method
Force	1. Controllable and programmable 2. Capable of approaching at high speed and pressing & pushing at low speed	1. The pressure of the air channel shall be adjusted in each adjustment 2. The speed is coupled with force. To apply high thrust at low speed, an air-liquid converter shall be activated
Speed	1. Multi-section acceleration and uniform motion 2. The max. speed can reach nearly 1000 mm/s by the use of a large-lead screw	1. Large speed fluctuation 2. Delayed action 3. The speed of standard pneumatic cylinders mostly ranges from 50 to 500 mm/s

Speed of electric cylinder



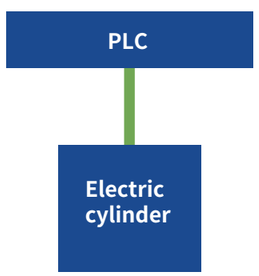
The speed and thrust of the electric cylinder are more stable and smooth

Speed of pneumatic cylinder



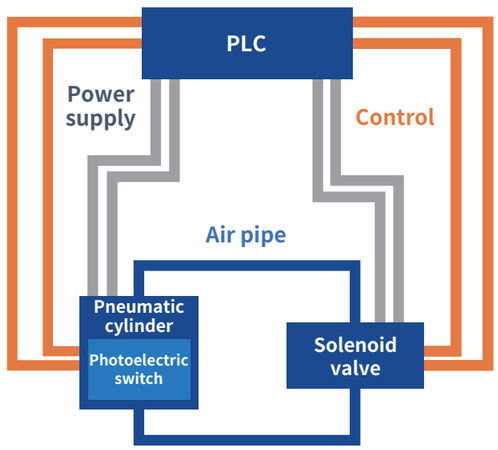
A pneumatic cylinder is compressible, resulting in poor motion stability and slow start

Plug and play



Connection diagram of electric cylinder

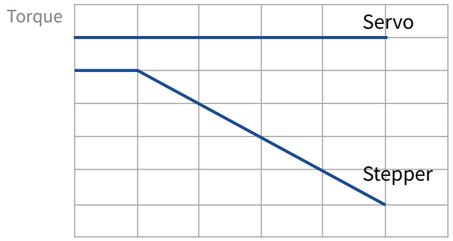
A controller is optional for the electric cylinder and can work simply by connecting with the PLC. Position information is returned in real time, and no external photoelectric switch is required.



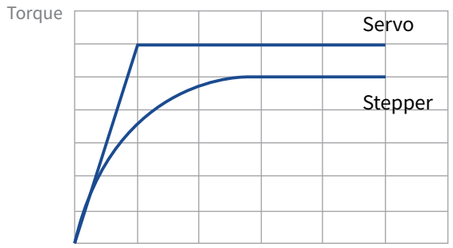
Connection diagram of pneumatic cylinder

Advantages of Servo Electric Cylinder over Stepper Electric Cylinder

Better thrust and load

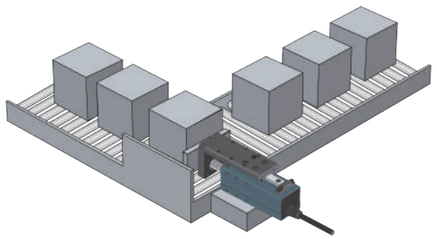


Stepper motor is limited by principle of the motor, high speed and strong force can no be met at the same time. Above 1000 RPM speed, the output torque drops sharply. At 3000 RPM speed (servo motor standard speed), the output torque of the servo motor will only be left a third or less. The output torque of the servo motor remains the same within the rated speed range, while the maxium speed and maximum torque of the stepper motor can not be achieved at the same time.



Closed-loop stepper motors have a speed limit of 3000 RPM speed, while servo motors can reach 6000 RPM speed or higher. Since stepper motors have the characteristic of decreasing torque as speed increases, the acceleration also decreases sharply as the speed increases, resulting in a longer acceleration section, making the working beat duration increase.

Applications

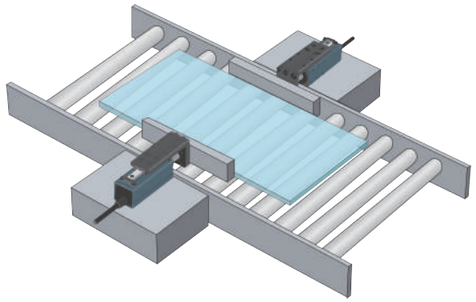


Pushing and conveying

The electric cylinder pushes the workpiece on the conveyor belt in the production line to another conveyor belt at a specific angle in place of repetitive manual operation to achieve automated production.

Advantages

The MCE series electric cylinder runs at high speed to significantly improve productivity. The thrust is adjustable up to 200 N to meet workpiece handling requirements at different weight levels. In addition, the acceleration can be programmed, enabling effective prevention of damage to workpieces, improved productivity, and reduced labour cost.

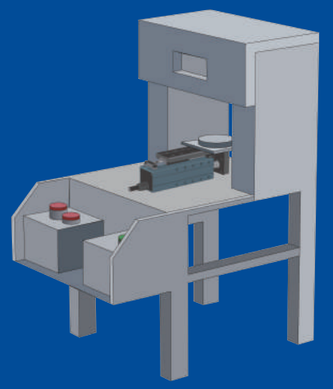


Positioning correction

The use of an electric cylinder for positioning solves the problem of large positioning error and difficult commissioning in a pneumatic cylinder. The thrust is adjustable so that damage to workpiece may be avoided. For example glass substrate positioning and panel positioning devices are used.

Advantages

The MCE series electric cylinder has the positioning repeatability of ±0.02 mm and can perform well for accurate positioning at high speed.

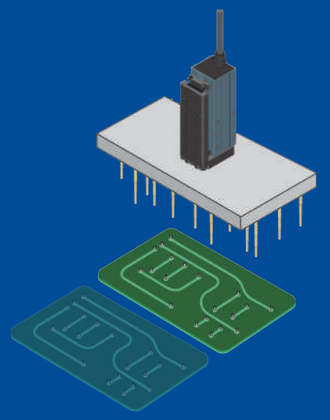


Pressure loading

The MCE miniature electric cylinder pushes a heavy workpiece into the punching machine in place of manual handling, which reduces the risk of accident and improves productivity.

Advantages

The MCE series electric cylinder has excellent load capacity, with a maximum weight capacity of 15 kg in the horizontal direction. The parameters are adjustable for accurate speed governing and positioning to ensure the machining accuracy of workpiece.

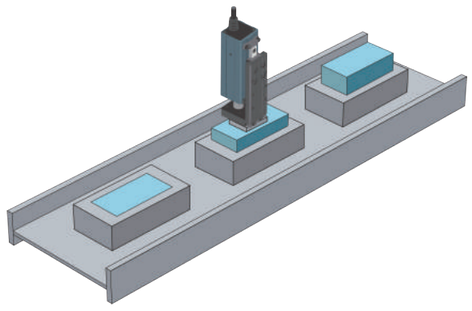


Detection

The MCE miniature electric cylinder is used to lift and lower the probes to test the conduction performance of the circuit board. The MCE miniature electric cylinder can perform well to allow multiple probes to work at a time.

Advantages

The MCE parameters are adjustable, and the position, speed, and thrust can be accurately programmed to achieve soft landing and pushing & pressing of workpieces. The MCE performs well in meeting the flexible production requirements in 3C electronics industry.

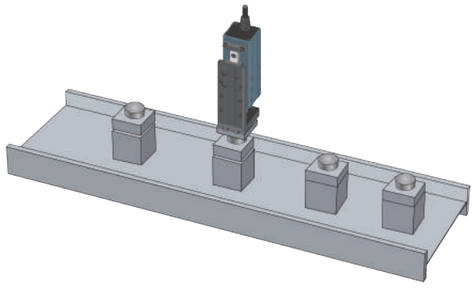


Pushing & pressing

The MCE miniature electric cylinder is used instead of conventional servo + sensor system to push and press mount components into the base in the component mounting process.

Advantages

The MCE can be programmed to achieve soft landing and pushing & pressing of workpieces at low speed after approaching the workpieces at high speed, speeding up the cycle time while reducing the defect rate and production costs.



Installation

The MCE miniature electric cylinder is used to press fit the cover of the electronic component onto the component body. The position, speed, and thrust of the electric cylinder can be governed to complete operation tasks more efficiently and stably.

Advantages

The position, speed, and thrust parameters of the MCE can be programmed to achieve soft landing and pushing & pressing of workpieces, meeting the flexible production requirements in 3C electronics industry while reducing the defect rate and downtime.

MCE-3G

MINIATURE ELECTRIC TABLE TYPE CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead(mm)/ Screw Type	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
MCE	3	G	01 □	030	C	O	B	L1	0

Guide Type
- G: Guide
- WG: Wide guide

Lead(mm)/ Screw Type
- 01
- 02
- 04
- 06
- None: Ball screw
- P: Grinding screw

Stroke (mm)
- 030
- 050

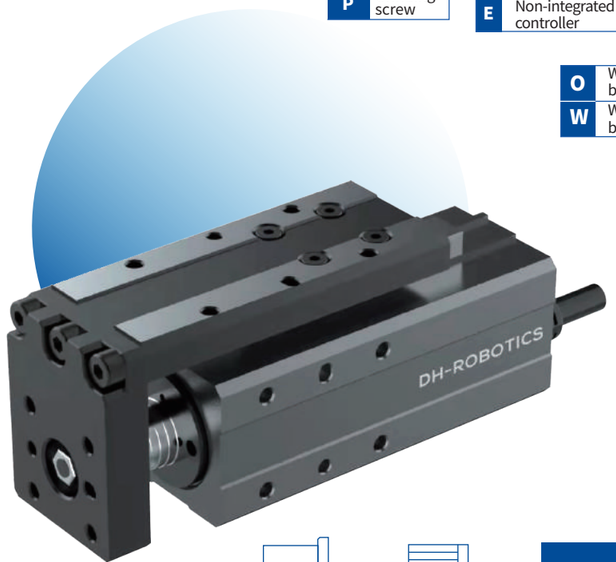
Integrated or not
- C: Integrated controller
- E: Non-integrated controller

Brake
- O: Without band-type brake
- W: With band-type brake

Cable Mounting Direction
- B: Backward
- F: Forward

Cable Length
- L1: 1m
- L3: 3m
- L5: 5m
- L10: 10m

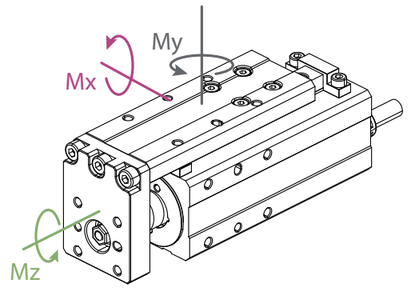
Customized*
- 0: No customization
- 1: Customization



Horizontal mounting | Horizontal mounting on side | Horizontal ceiling mounting | Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS



Technical Parameters				
Total stroke(mm)	30, 50			
Screw lead(mm)	1	2	4	6
Rated thrust(N)	200	100	50	30
Min. thrust(N)	60	30	15	9
Max. speed(mm/s)	50	100	200	300
Max. acceleration(mm/s²)	2000	3000	3000	3000
Max. weight capacity - horizontal(kg)	8	6	3	2
Max. weight capacity - vertical(kg)	2	1.5	0.75	0.5
Positioning repeatability(mm)	±0.02 ±0.003(Custom grinding screw rod)			
Idle stroke(mm)	Below 0.1 mm			

Operating Environment	
Communication protocol	Bulit-in:485+4-way I/O(NPN, PNP) External: Depending on the selected controller
Adaptable to external controllers	SAC Serie
Rated voltage	24 V DC ± 10%
Current	1.5 A(Rated)/3 A(Peak)
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Allowable load moment	
Mx	9.9 N·m
My	9.9 N·m
Mz	3.3 N·m

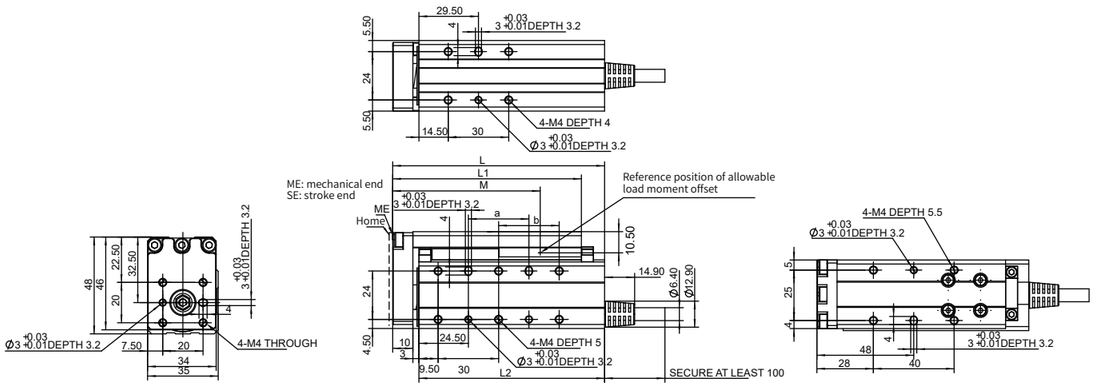
Stroke	30 mm	50 mm
Width	35 mm	35 mm
Weight	0.47 kg	0.55 kg

Dimensions

*Note: A or B is equal to 50 mm stroke plus hole distance, of which A is the dowel hole distance and B is the M4 mounting hole distance. 30 mm stroke is the size without holes. Therefore, both A and B are zero for 30 mm stroke.

mm

Stroke	30	50
L	105	125
L1	93.5	113.5
L2	92	112
L2 (With brake)	112	132
M	72	92
a	0	30
b	0	30



MCE-3WG

MINIATURE ELECTRIC TABLE TYPE CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead(mm)/ Screw Type	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
MCE	3 WG		01 □	030	C	O	B	L1	0

- Guide type: G Guide; WG Wide guide
- Lead(mm)/Screw Type: 01, 02, 04, 06; None Ball screw; P Grinding screw
- Stroke (mm): 030, 050
- Integrated or not: C Integrated controller; E Non-integrated controller
- Brake: O Without band-type brake; W With band-type brake
- Cable Mounting Direction: B Backward; F Forward
- Cable Length: L1 1m; L3 3m; L5 5m; L10 10m
- Customized*: 0 No customization; 1 Customization

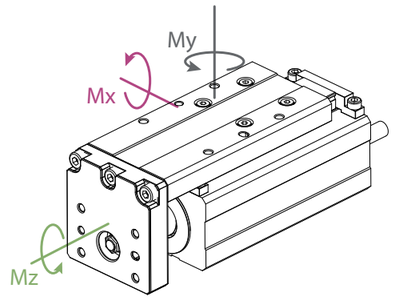

Horizontal mounting


Horizontal ceiling mounting


Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS



Allowable load moment	
Mx	9.9 N·m
My	9.9 N·m
Mz*	12.2 N·m

*The MCE-3WG uses a more functional wide guide to provide a higher eccentric load moment, when compared with MCE-3G

Technical Parameters				
Total stroke(mm)	30, 50			
Screw lead(mm)	1	2	4	6
Rated thrust(N)	200	100	50	30
Min. thrust(N)	60	30	15	9
Max. speed(mm/s)	50	100	200	300
Max. acceleration(mm/s²)	2000	3000	3000	3000
Max. weight capacity - horizontal(kg)	8	6	3	2
Max. weight capacity - vertical(kg)	2	1.5	0.75	0.5
Positioning repeatability(mm)	±0.02 ±0.003(Custom grinding screw rod)			
Idle stroke(mm)	Below 0.1 mm			

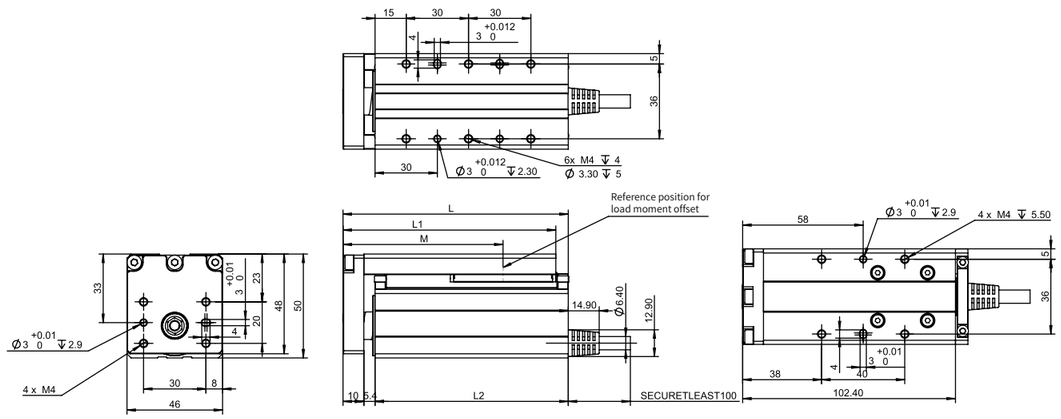
Operating Environment	
Communication protocol	Bulit-in：485+4-way I/O(NPN, PNP) External: Depending on the selected controller
Adaptable to external controllers	SAC Serie
Rated voltage	24 V DC ± 10%
Current	1.5 A(Rated)/3 A(Peak)
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Stroke	30 mm	50 mm
Width	46 mm	46 mm
Weight	0.62 kg	0.7 kg

Dimensions

mm

Stroke	30	50
L	108.4	128.4
L1	102.4	122.4
L2	93	113
L2 (With brake)	113	133
M	77	97



MCE-4G

MINIATURE ELECTRIC TABLE TYPE CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead(mm)/ Screw Type	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
MCE	4	G Guide	05 / 10 / 20	075 / 150	E Non-integrated controller	O Without band-type brake W With band-type brake	B Backward F Forward	L1 1m L3 3m L5 5m L10 10m	0 No customization 1 Customization

Lead(mm)/Screw Type: None Ball screw; P Grinding screw

Horizontal mounting

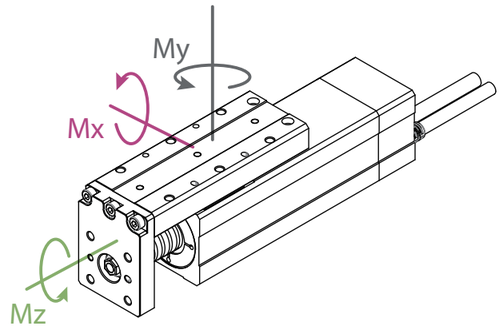
Horizontal mounting on side

Horizontal ceiling mounting

Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS



Technical Parameters			
Total stroke(mm)	75, 150		
Screw lead(mm)	5	10	20
Rated thrust(N)	170	85	40
Min. thrust(N)	51	25.5	12
Max. acceleration(mm/s²)	2000	3000	3000
Max. speed(mm/s)	165	330	660
Max. weight capacity - horizontal(kg)	15	15	7
Max. weight capacity - vertical(kg)	6	3	2
Positioning repeatability(mm)	±0.02 ±0.003(Custom grinding screw rod)		
Idle stroke(mm)	Below 0.1 mm		

Operating Environment	
Communication protocol	External: Depending on the selected controller
Adaptable to external controllers	SAC Serie
Rated voltage	24 V DC ± 10%
Current	2.5 A(Rated)/7 A(Peak)
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Allowable load moment	
Mx	18.8 N·m
My	18.8 N·m
Mz	30.5 N·m

Mechanical Parameters		
Stroke	75 mm	150 mm
Width	43.5 mm	43.5 mm
Weight	1.4 kg	1.65 kg

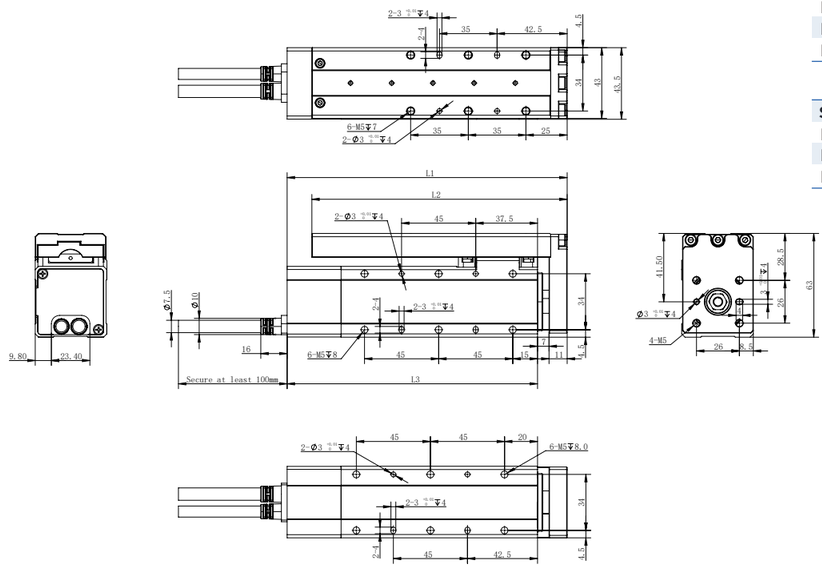
Dimensions

Without Brake mm

Stroke	075	150
L1	170	235
L2	155	235
L3	152	217

With Brake mm

Stroke	075	150
L1	185	235
L2	160	235
L3	167	217



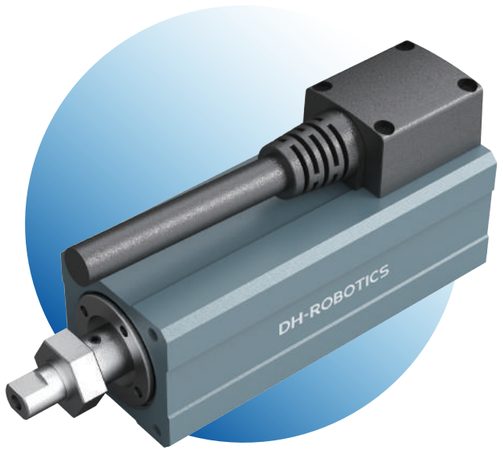
RCE-3M

MINIATURE ELECTRIC ROD TYPE CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead(mm)/ Screw Type	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
RCE	3	M	01 □	030	C	O	F	L1	0

- M Rod type
- 01 / 02 / 04 / 06
- None Ball screw; P Grinding screw
- 030 / 050
- C Integrated controller; E Non-integrated controller
- O Without band-type brake; W With band-type brake
- B Backward; F Forward
- L1 1m; L3 3m; L5 5m; L10 10m
- 0 No customization; 1 Customization



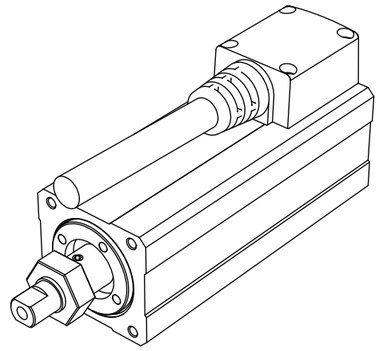

Horizontal mounting


Horizontal ceiling mounting


Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS



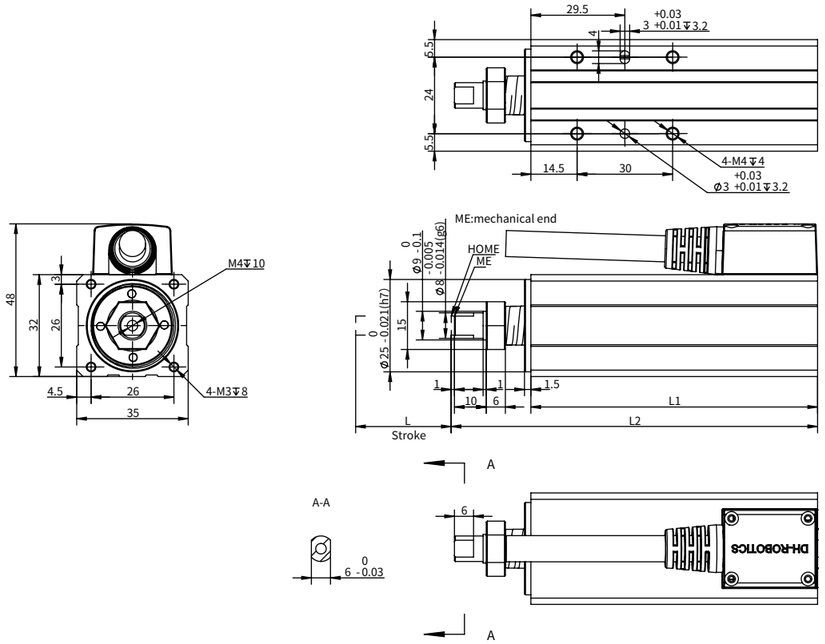
*
1. Since the drive screw is not equipped with a stop-rotation structure, please add a structure with a stop-rotation function, such as a guide rail, to the end of the drive screw (without a stop-rotation structure, the drive screw will rotate with the rotation of the motor and cannot move back and forth). In addition, please do not use floating joints at the connection between the stop structure and the tie rod.
2. The horizontal load mass is the value with the use of an external rail.
3. Do not apply a load to the tie rod other than in the direction of tie rod movement.

Technical Parameters				
Total stroke(mm)	30, 50			
Screw lead(mm)	1	2	4	6
Rated thrust(N)	200	100	50	30
Min. thrust(N)	60	30	15	9
Max. speed(mm/s)	50	100	200	300
Max. acceleration(mm/s²)	2000	3000	3000	3000
Max. weight capacity - horizontal(kg)	8	6	3	2
Max. weight capacity - vertical(kg)	2	1.5	0.75	0.5
Positioning repeatability(mm)	±0.02 ±0.003(Custom grinding screw rod)			
Idle stroke(mm)	Below 0.1 mm			

Operating Environment	
Communication protocol	Bulit-in：485+4-way I/O(NPN, PNP) External: Depending on the selected controller
Adaptable to external controllers	SAC Serie
Rated voltage	24 V DC ± 10%
Current	1.5 A(Rated)/3 A(Peak)
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Stroke	30 mm	50 mm
Weight	0.47 kg	0.55 kg

Dimensions



Stroke L	30	50
L1	90	110
L2	115	135
L1(With brake)	104	124
L2(With brake)	129	149

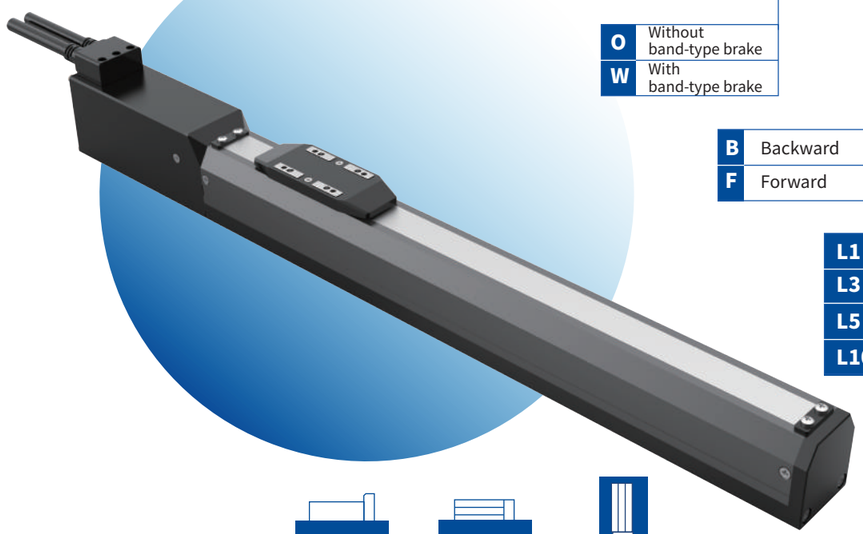
LCE-4C

LINEAR ELECTRIC CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead (mm)	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
LCE	4	C	02	100	E	O	B	L1	0

- Lead (mm): 02, 05, 10
- Stroke (mm): 100~500mm(50mm pitch)
- Integrated or not: E Non-integrated controller
- Brake: O Without band-type brake; W With band-type brake
- Cable Mounting Direction: B Backward; F Forward
- Cable Length: L1 1m; L3 3m; L5 5m; L10 10m
- Customized*: 0 No customization; 1 Customization



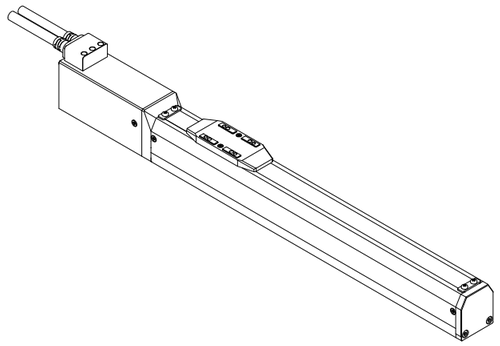
Horizontal mounting

Horizontal mounting on side

Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS

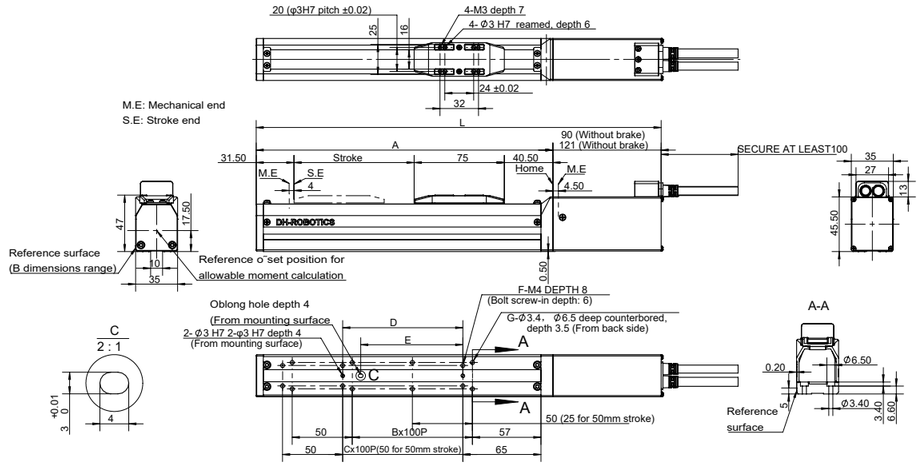


Technical Parameters			
Total stroke	100~500mm(50mm pitch)		
Screw lead	2 mm	5 mm	10 mm
Rated thrust	125 N	50 N	25 N
Min. thrust	37.5 N	15 N	7.5 N
Max. acceleration	5000 mm/s²	5000 mm/s²	5000 mm/s²
Max. speed	100 mm/s	250 mm/s	500 mm/s
Max. weight capacity - horizontal	15 kg	15 kg	12 kg
Max. weight capacity - vertical	6 kg	3 kg	1.5 kg
Positioning repeatability	±0.02 mm		
Idle stroke	Below 0.1 mm		

Allowable load moment	
Mx	36.4 N·m
My	42.3 N·m
Mz	14.33 N·m

Operating Environment	
Communication protocol	External: Depending on the selected controller
Adaptable to external controllers	SAC Serie
Rated voltage	24 V DC ± 10%
Current	1.5 A(Rated)/3 A(Peak)
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Dimensions



Stroke		100	150	200	250	300	350	400	450	500
L	w/o brake	337	387	437	487	537	587	637	687	737
	w/ brake	367	417	467	517	567	617	667	717	767
A		247	297	347	397	447	497	547	597	647
B		0	1	1	2	2	3	3	4	4
C		1	1	2	2	3	3	4	4	5
D		100	100	200	200	300	300	400	400	500
E		85	85	185	185	285	285	385	385	485
F		6	6	8	8	10	10	12	12	14
G		8	10	10	12	12	14	14	16	16
Mass (kg)	w/o brake	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
	w/ brake	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4

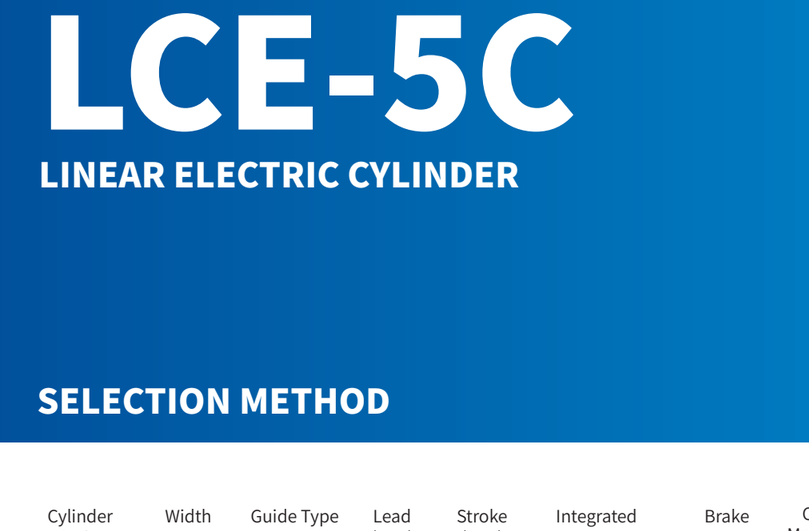
LCE-5C

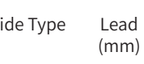
LINEAR ELECTRIC CYLINDER

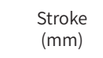
SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead (mm)	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
LCE	5	C	05	100	E	O	B	L1	0

- Lead (mm): 05, 10, 20
- Stroke (mm): 100~800mm(50 mm pitch)
- Integrated or not: E — Non-integrated controller
- Brake: O — Without band-type brake; W — With band-type brake
- Cable Mounting Direction: B — Backward; F — Forward
- Cable Length: L1 — 1m; L3 — 3m; L5 — 5m; L10 — 10m
- Customized*: 0 — No customization; 1 — Customization



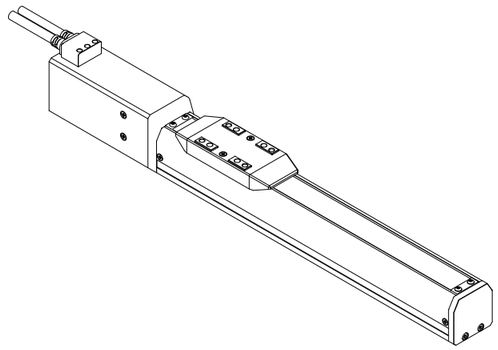

Horizontal mounting


Horizontal mounting on side


Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS

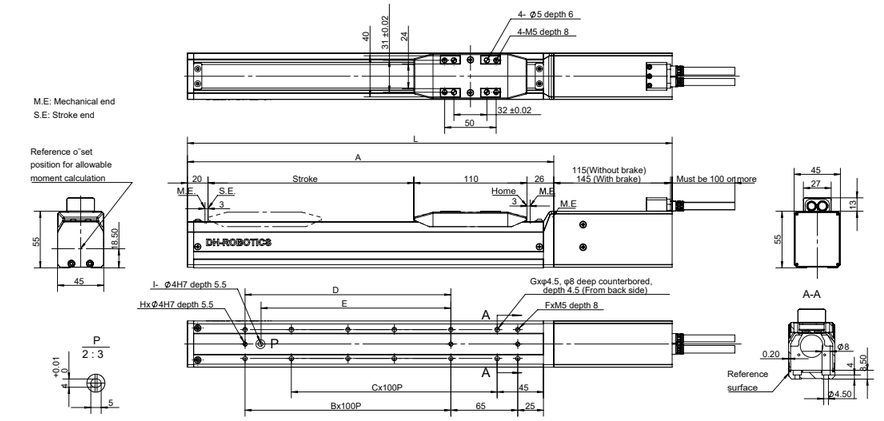


Technical Parameters			
Total stroke	100~800mm(50 mm pitch)		
Screw lead	5 mm	10 mm	20 mm
Rated thrust	320 N	160 N	80 N
Min. thrust	96 N	48 N	24 N
Max. acceleration	5000 mm/s²	5000 mm/s²	5000 mm/s²
Max. speed	250 mm/s	500 mm/s	1000 mm/s
Max. weight capacity - horizontal	35 kg	25 kg	15 kg
Max. weight capacity - vertical	10 kg	5 kg	2.5 kg
Positioning repeatability	±0.02 mm		
Idle stroke	Below 0.1 mm		

Operating Environment	
Communication protocol	Standard configurations: Modbus RTU (RS485), Digital I/O Option: EtherCAT Need to adapt to the external purchase of other brands of drives
Rated voltage	24 V DC ± 10%
Rated power	100 W
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Allowable load moment	
Mx	78.6 N·m
My	91.0 N·m
Mz	31.5 N·m

Dimensions



Stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	w/o brake	371	421	471	521	571	621	671	721	771	821	871	921	971	1021	1071
	w/ brake	401	451	501	551	601	651	701	751	801	851	901	951	1001	1151	1101
A		256	306	356	406	456	506	556	606	656	706	756	806	856	906	956
B		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
C		1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
D		100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
E		85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
F		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
G		4	6	6	8	8	10	10	12	12	14	14	16	16	18	18
H		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
I		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mass (kg)	w/o brake	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4	4.3	4.6	4.9	5.2	5.5	5.8
	w/ brake	1.8	2.1	2.4	2.7	3	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7	6

LCE-7C

LINEAR ELECTRIC CYLINDER

SELECTION METHOD

Cylinder Series	Width	Guide Type	Lead (mm)	Stroke (mm)	Integrated or not	Brake	Cable Mounting Direction	Cable Length	Customized*
LCE	7	C	05	100	E	O	B	L1	0

- Lead (mm): 05, 10, 16, 20
- Stroke (mm): 100~800mm(50 mm pitch)
- Integrated or not: E — Non-integrated controller
- Brake: O — Without band-type brake; W — With band-type brake
- Cable Mounting Direction: B — Backward; F — Forward
- Cable Length: L1 — 1m; L3 — 3m; L5 — 5m; L10 — 10m
- Customized*: 0 — No customization; 1 — Customization

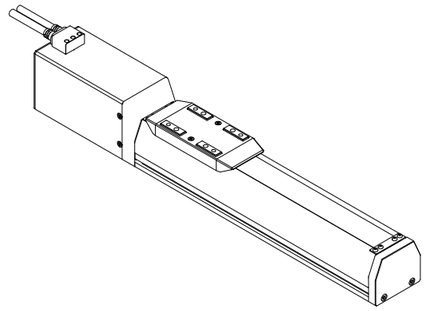
Horizontal mounting

Horizontal mounting on side

Vertical mounting

*Note: For customization fees, consult with the sales staff of DH-Robotics

TECHNICAL SPECIFICATIONS

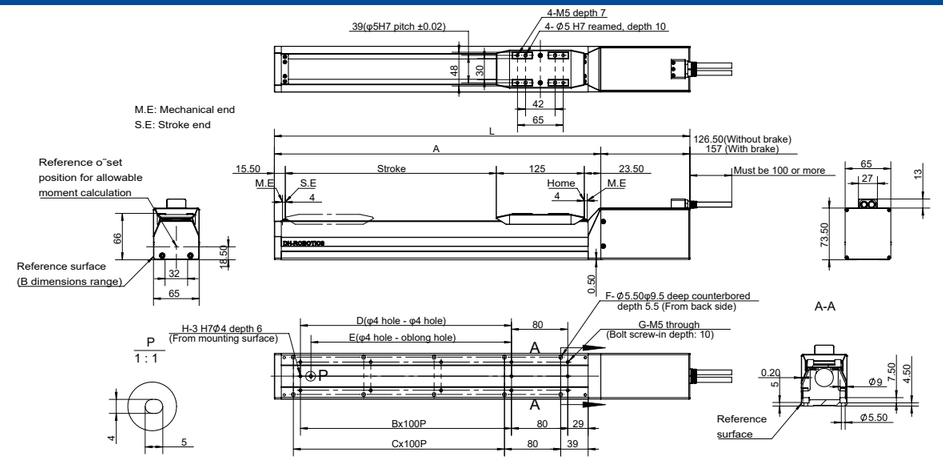


Technical Parameters				
Total stroke	100~800mm(50mm pitch)			
Screw lead	5 mm	10 mm	16 mm	20 mm
Rated thrust	680 N	340 N	210 N	170 N
Min. thrust	204 N	102 N	63 N	51 N
Max. acceleration	5000 mm/s²	5000 mm/s²	5000 mm/s²	5000 mm/s²
Max. speed	250 mm/s	500 mm/s	800 mm/s	1000 mm/s
Max. weight capacity - horizontal	55 kg	50 kg	45 kg	35 kg
Max. weight capacity - vertical	25 kg	15 kg	8 kg	6 kg
Positioning repeatability	±0.02 mm			
Idle stroke	Below 0.1 mm			

Operating Environment	
Communication protocol	Standard configurations: Modbus RTU (RS485), Digital I/O Option: EtherCAT Need to adapt to the external purchase of other brands of drives
Rated voltage	24 V DC ± 10%
Rated power	200 W
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS

Allowable load moment	
Mx	290 N·m
My	290 N·m
Mz	176 N·m

Dimensions



Stroke		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	w/o brake	390.5	440.5	490.5	540.5	590.5	640.5	690.5	740.5	790.5	840.5	890.5	940.5	990.5	1040.5	1090.5
	w/ brake	421	471	521	571	621	671	721	771	821	871	921	971	1021	1071	1121
A		264	314	364	414	464	514	564	614	664	714	764	814	864	914	964
B		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
C		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
D		100	100	200	200	300	300	400	400	500	500	600	600	700	700	800
E		85	85	185	185	285	285	385	385	485	485	585	585	685	685	785
F		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
G		6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
H		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mass (kg)	w/o brake	3.8	4.1	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.8	7.1	7.4	7.7	8
	w/ brake	4.2	4.5	4.8	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4

SAC-N

SINGLE AXIS CONTROLLOR

SELECTION METHOD

Drives Series	Type	Communication interface	Voltage	Rated Current	Encoder	Customized
SAC	N	M1	K	03	A1	0

Type	
N	Normal
S	Simple
NF	Normal+Force Control Sensors
SF	Simple+Force Control Sensors

Communication interface	
M1	ModbusRTU(RS485) +Pulse+NPN
M2	ModbusRTU(RS485) +Pulse+PNP

Voltage	
K	24 V

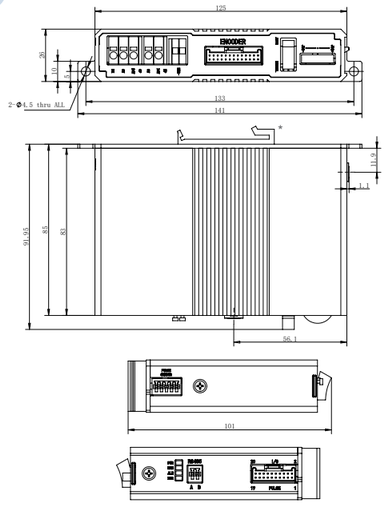
Rated Current	
03	3 A

Encoder	
A1	ABZ Encoder+ SSI Encoder

Customized	
0	No customization
1	Customization

Adaptable Products：MCE Series and LCE-4C

TECHNICAL SPECIFICATIONS



*Guide rail clips are industry standard size and can be removed when installed with screws

Technical Parameters	
Number of controllable axes	1
Support control methods	I/O, Pulse, ModbusRTU RS485
Number of points	64
I/O and pulse connection holder	40PIN Connector
Number of I/O	14 in 16 out
Debugging protocols	RS485
Pulse type	Opticalcoupler
Max. pulse frequency	100Kpps
Brake control	Support
Force-controlled closed-loop control	Support

Operating Environment	
Input voltage	24 V DC±10%
Output Current	3 A(Rated)/9 A(Peak)
Recommended operating environment	0 to 40°C, below 85% RH
IP class	IP 20
Weigh	300 g

Interface Diagram

1. Logic Circuit and PE
Logic power supply interface, supplying internal control chip, communication chip, holding brake and some external interfaces and PE (housing) interface

2. Motor Power Supply
Motor power supply interface, supply motor power

3. Emergency Stop
Emergency stop control inerface

4. DB26 Interface
DB26 interface includes motor UVW three-phase output, external brake control output, encoder differential ABZ and differential SSI input

5. Mode Switching
Manual switching and automatic switching

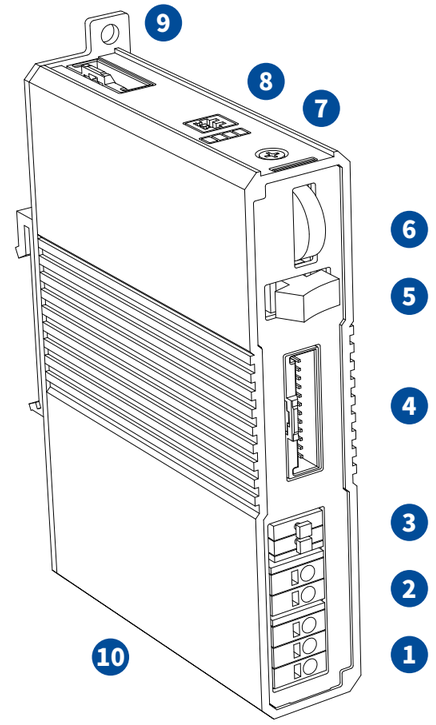
6. JOG
JOG is used to control the electric in manual mode.

7. Indicator Light
Power light and status light

8. Modubus-RTU RS485 Interface
For commissioning, control, monitoring

9. I/O and Pulse Interface
I/O and pulse interface includes I/O interface, pulse input interface

10. Sensor Interface
Force senor interface



SAC-S

SINGLE AXIS CONTROLLOR

SELECTION METHOD

Drives Series	Type	Communication interface	Voltage	Rated Current	Encoder	Customized
SAC	N	M1	K	03	A1	0

Type

N	Normal
S	Simple
NF	Normal+Force Control Sensors
SF	Simple+Force Control Sensors

Communication interface

M1	ModbusRTU(RS485) +Pulse+NPN

Voltage

K	24 V

Rated Current

03	3 A

Encoder

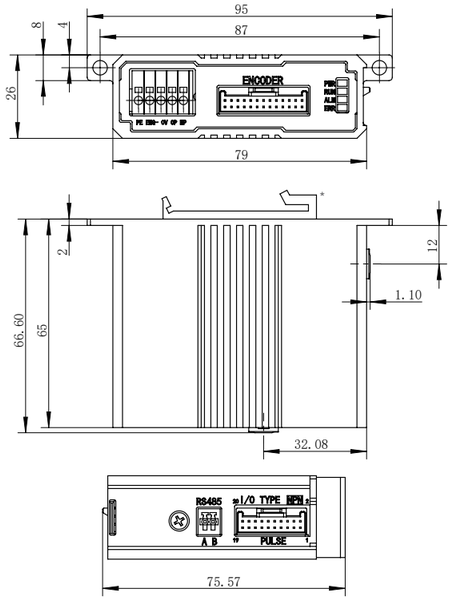
A1	ABZ Encoder+ SSI Encoder

Customized

0	No customization
1	Customization

Adaptable Products: MCE Series and LCE-4C

TECHNICAL SPECIFICATIONS



*Guide rail clips are industry standard size and can be removed when installed with screws

Technical Parameters	
Number of controllable axes	1
Support control methods	I/O, Pulse, ModbusRTU RS485
Number of points	16
I/O and pulse connection holder	20PIN Connector
Number of I/O	8 in 8 out
Debugging protocols	RS485
Pulse type	Opticalcoupler
Max. pulse frequency	100Kpps
Brake control	Support
Force-controlled closed-loop control	No support

Operating Environment	
Input voltage	24 V DC±10%
Output Current	3 A(Rated)/9 A(Peak)
Recommended operating environment	0 to 40°C, below 85% RH
IP class	IP 20
Weigh	150 g

Interface Diagram

1.

Logic Circuit and PE

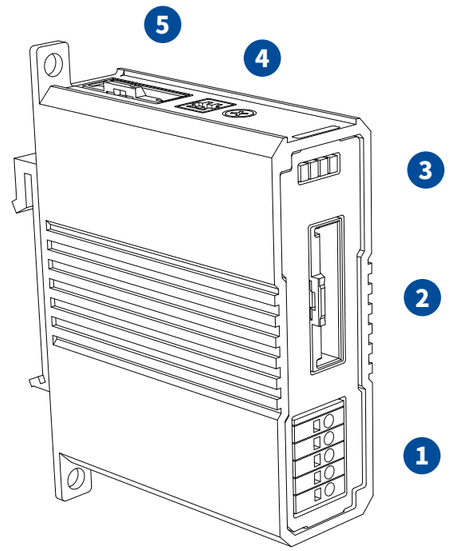
Logic power supply interface, supplying internal control chip, communication chip, holding brake and some external interfaces and PE (housing) interface

Motor Power Supply

Motor power supply interface, supply motor power

Emergency Stop

Emergency stop control inerface



2. DB26 Interface

DB26 interface includes motor UVW three-phase output, external brake control output, encoder differential ABZ and differential SSI input

3. Indicator Light

Power light and status light

4. Modubus-RTU RS485 Interface

For commissioning, control, monitoring

5. I/O and Pulse Interface

I/O and pulse interface includes I/O interface, pulse input interface

Customer trust

More than 500 customers around the world are using DH-Robotics products
The number of customers continues to grow rapidly. . .

Product Distribution

Chinese Agent Distribution Cties

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Australia: Australia / New Zealand
America: United States / Mexico
Middle East: Saudi Arabia / Tunisia / Türkiye

DH-ROBOTICS

is committed to provide first-class core components of precision motion control.