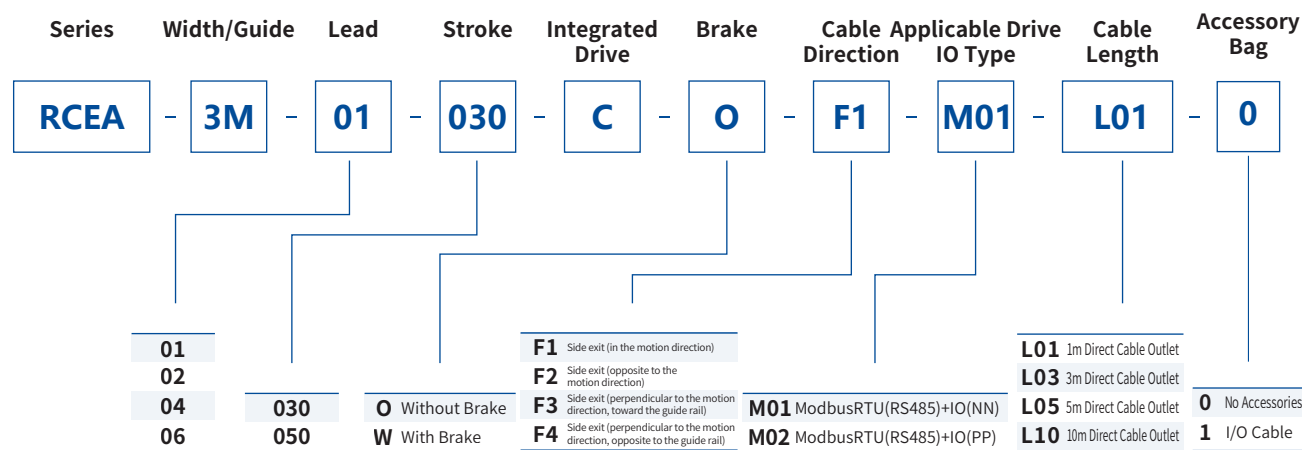


RCEA-3M

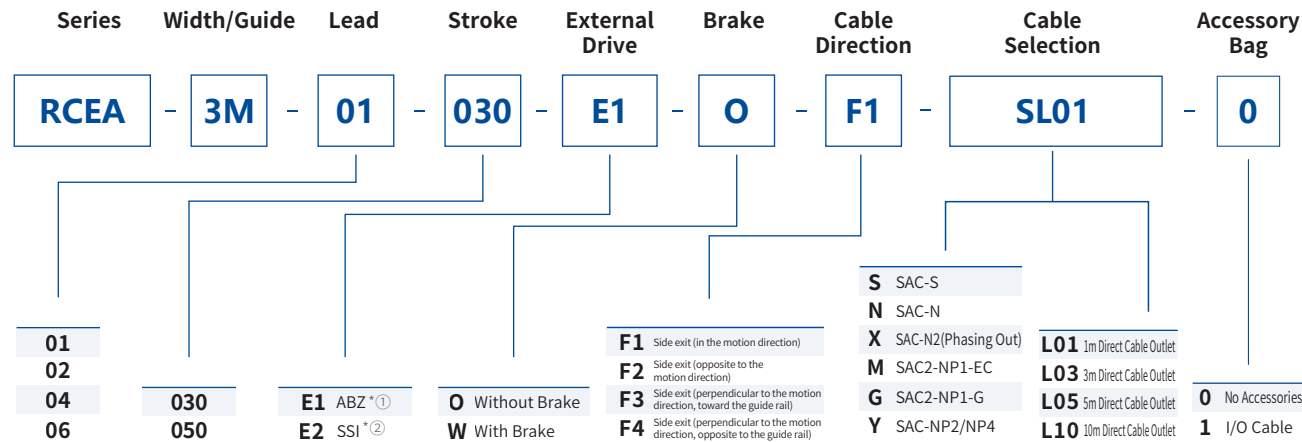
Micro Rod-type Electric Cylinder



Integrated-Drive Electric Cylinder Selection Method

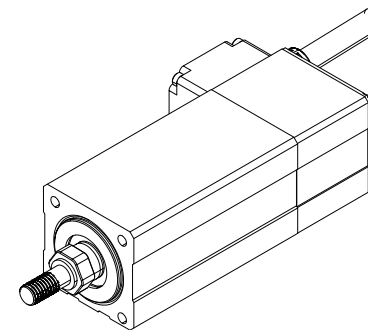


External-Drive Electric Cylinder Selection Method



Note: *① ABZ: Incremental Encoder: Phase search is required after power-up.
*② SSI: Single-Turn Absolute Encoder: Phase search is not required after power-up. (It is recommended to select this type of encoder when the electric cylinder is used as the Z-axis).

TECHNICAL SPECIFICATIONS



Note:
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.
*④ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

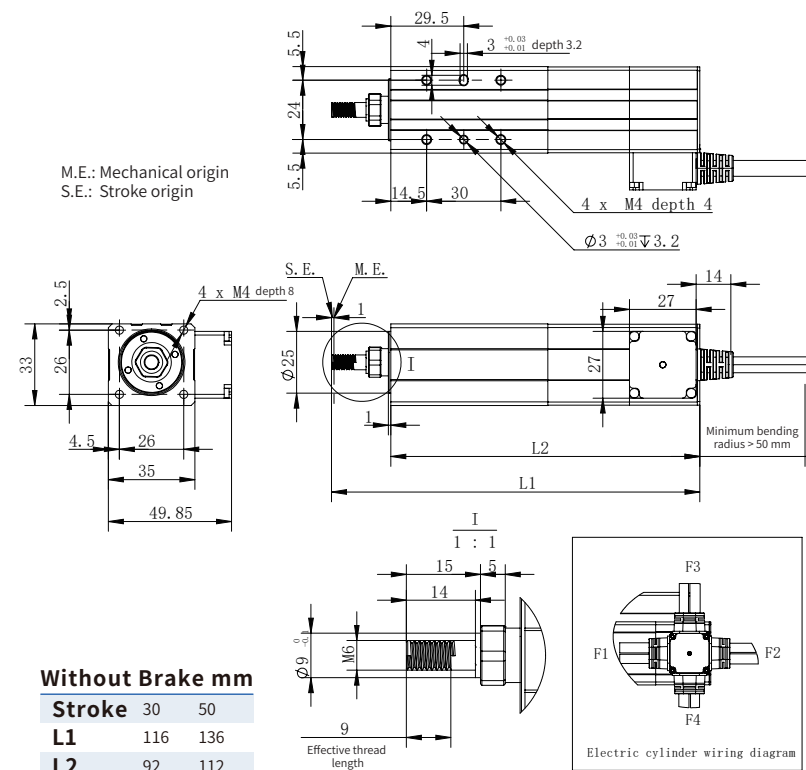
Technical Parameters

Total stroke	30 mm, 50 mm			
Screw lead	1 mm	2 mm	4 mm	6 mm
Rated thrust	200 N	100 N	50 N	30 N
Max. Speed	50 mm/s	100 mm/s	200 mm/s	300 mm/s
Max. Acceleration	2000 mm/s ²	3000 mm/s ²	3000 mm/s ²	3000 mm/s ²
Max. Weight capacity - horizontal	8 kg	6 kg	3 kg	2 kg
Max. Weight capacity - vertical	2 kg	1.5 kg	0.75 kg	0.5 kg
Positioning repeatability	±0.01 mm			
Mechanical backlash	Less than 0.1mm			
Weight	(O)	30 Total stroke: 0.47 kg	50 Total stroke: 0.55 kg	
	(W)	30 Total stroke: 0.54 kg	50 Total stroke: 0.62 kg	

Operating Environment

Communication protocol	External: Depending on the Selected Driver
Rated voltage	24 V DC ± 10%
Current	1.5 A (Rated) / 3 A (Peak) *④
Protection rating	IP 40
Recommended operating environment	0 to 40°C, below 85% RH
Compliance with international standards	CE, FCC, RoHS, TUV

Dimensions

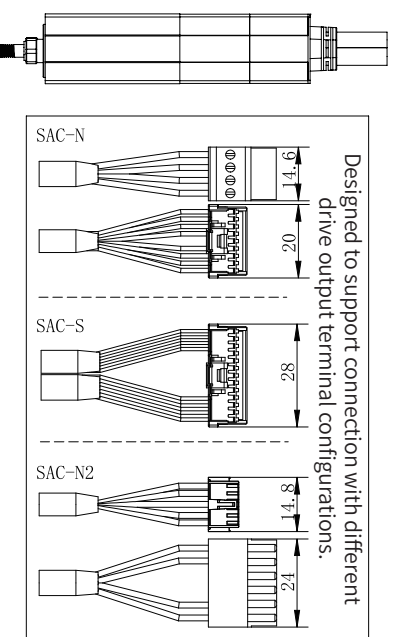


Without Brake mm		
Stroke	30	50
L1	116	136
L2	92	112

With Brake mm		
Stroke	30	50
L1	136	149
L2	112	125

Note:
During homing/reset, the slider will move all the way to the ME (Mechanical End). Please ensure there is no interference with surrounding objects during this movement.

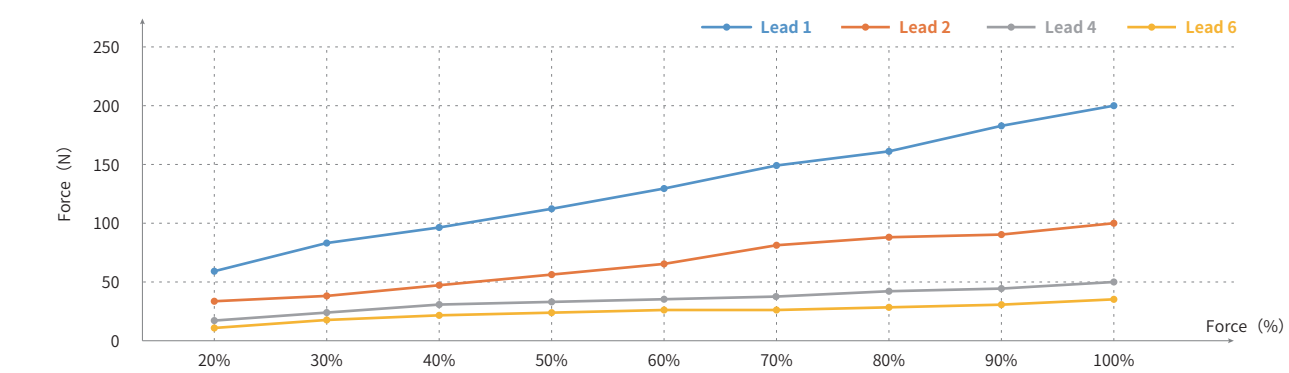
External Electric Cylinder – Compatible with Various Drive Output Terminal Types



Applicable Drive								
Name	Appearance	Controllable Maxes	Model	Control Methods	Feature	Input voltage	Power Capacity	Reference Page
Small Scale Single-Axis Dedicated Controller		1	SAC-S	RS485	ModbusRTU	DC24V	MAX 72W	SAC-S Selection Page P29-30
				I/O	Up to 16 I/O Points			
				Pulse+I/O	Direction+Pulse			
Single-Axis Dedicated Controller		1	SAC-N	RS485	ModbusRTU	DC24V	MAX 200W	SAC-N Selection Page P31-32
				I/O	Up to 64 I/O Points			
				Pulse+I/O	Direction+Pulse			
Single-Axis Dedicated Force Control Controller		1	SAC-NF	RS485	ModbusRTU	DC24V	MAX 200W	Please Contact us for Force Control Applications.
Single Axis Drive		1	SAC2-NP1	EtherCat	Standard CIA402 Axis Control	DC24V / DC72V	MAX 750W	SAC2-NP1 Selection Page P33-36
				Pulse+I/O	Direction+Pulse			
				RS485	ModbusRTU			
Dual Axis Standard Drive		2	SAC-N2	EtherCat	Standard CIA402 Axis Control	DC24V / DC72V	MAX 240W (24V) / 480W (48V)	SAC-N2 Selection Page P37-38
				Pulse+I/O	Direction+Pulse			
				RS485	ModbusRTU			
Dual-Axis Drive		2	SAC-NP2	EtherCat	Standard CIA402 Axis Control	DC24V / DC48V	MAX 240W (24V) / 480W (48V)	SAC-N2 Selection Page P39-40
				Pulse+I/O	Direction+Pulse			
Four-Axis Drive		4	SAC-NP4	EtherCat	Standard CIA402 Axis Control	DC24V / DC48V	MAX 480W	SAC-N2 Selection Page P41-42
				Pulse+I/O	Direction+Pulse			

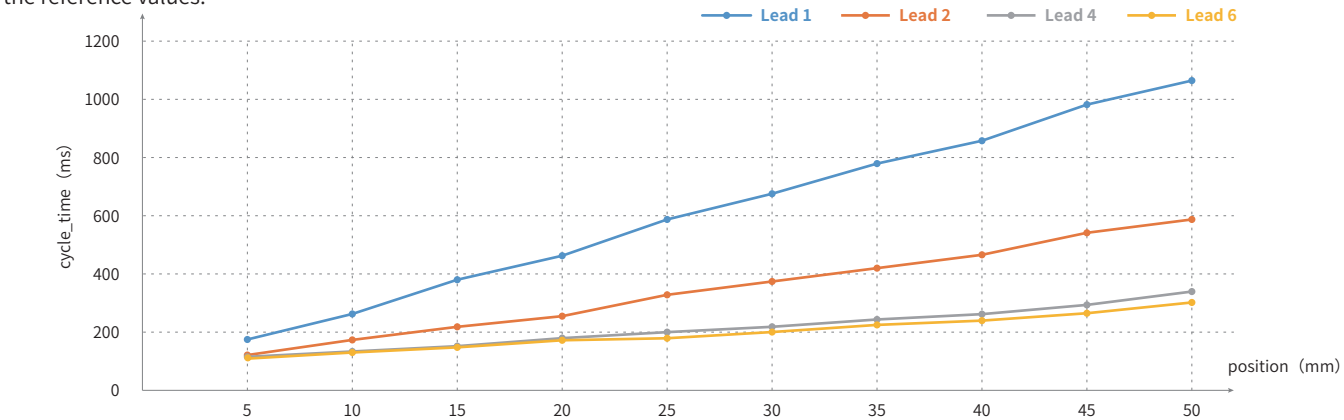
Electric Cylinder Thrust Curve (Reference Value)

Thrust output curves under different load conditions with the electric cylinder mounted horizontally.

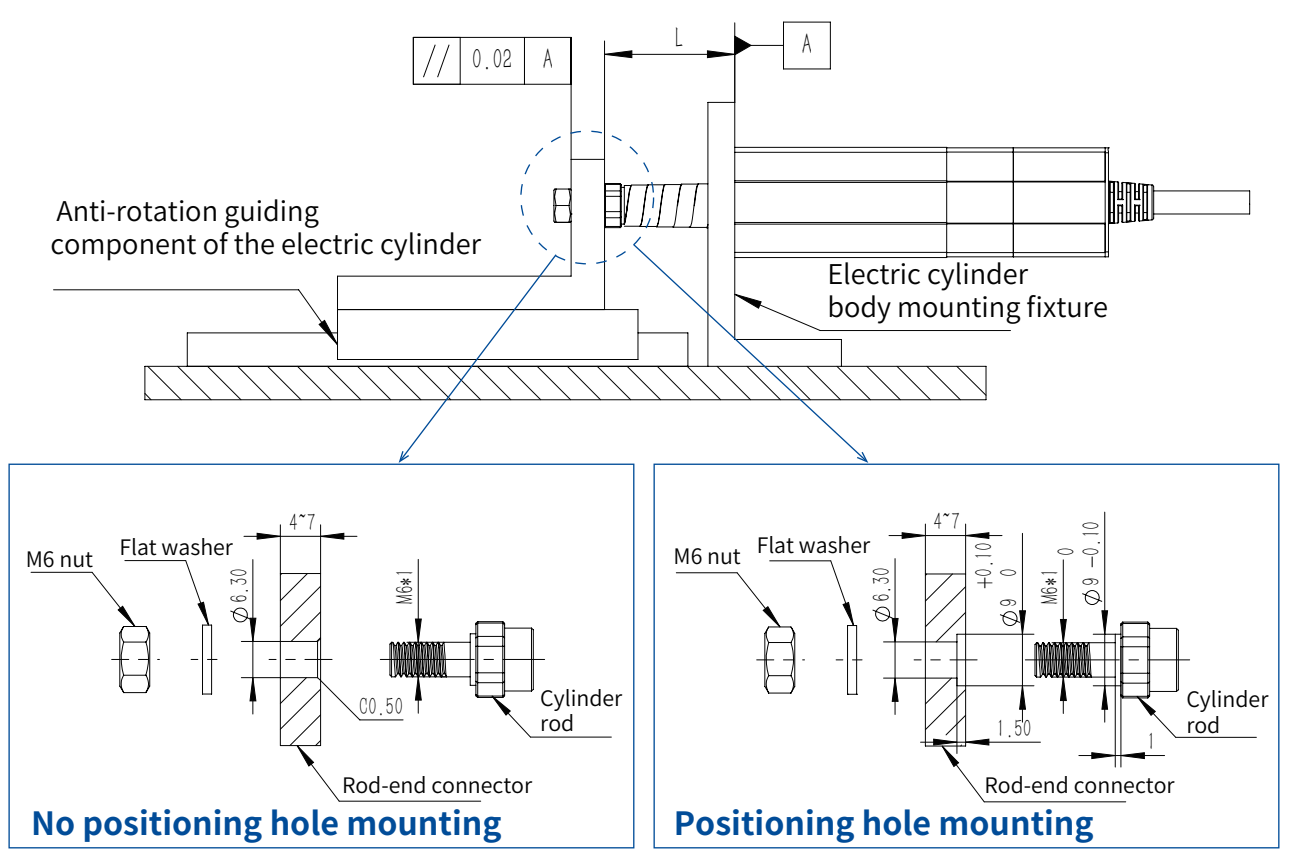


Electric Cylinder Cycle Time Curve (Reference Value)

Reference values for maximum load operation cycle time of the electric cylinder. Note: Communication delay of 30 ms is included in the reference values.

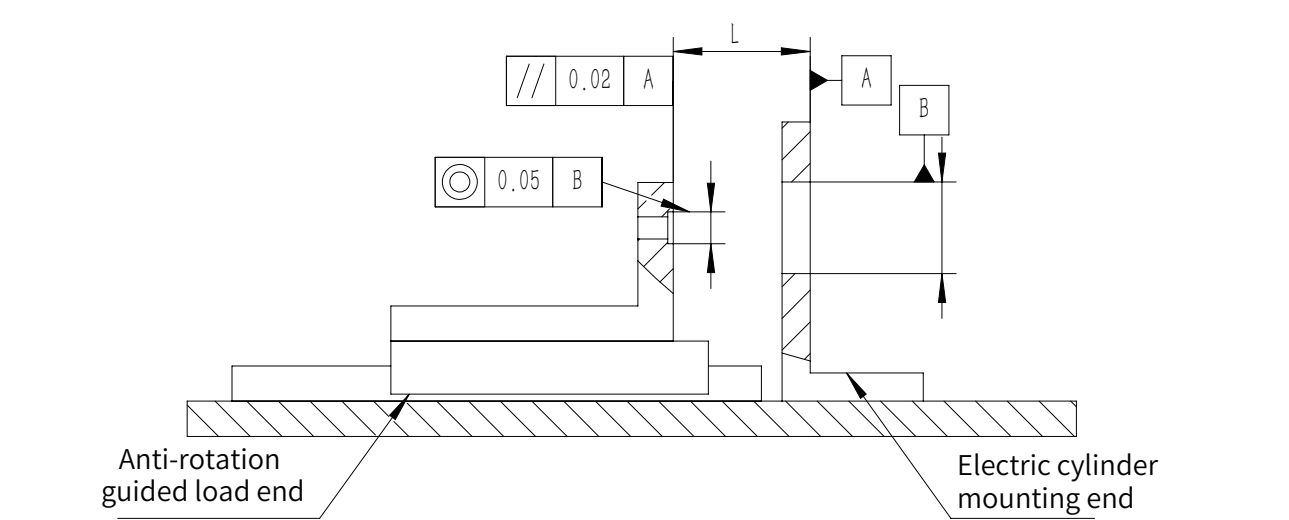


Anti-rotation Mechanism Installation Diagram



Note:
Do not use floating couplings to connect the anti-rotation mechanism of the drive shaft. Otherwise, radial oscillations may apply lateral force to the lead screw, potentially resulting in malfunction or premature damage of the drive shaft.

Electric Cylinder and Anti-rotation Guided Load Installation Diagram



Note:
The mounting hole tolerance between the cylinder mounting section and the anti-rotation guided load end should be controlled within 0.05 mm, and parallelism should be within 0.02 mm. Poor accuracy may result in abnormal noise, vibration, and may lead to malfunction or damage to the electric cylinder.