

Electric cylinders CASM-25



Compactness



Lightweight

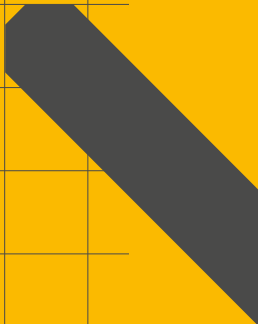
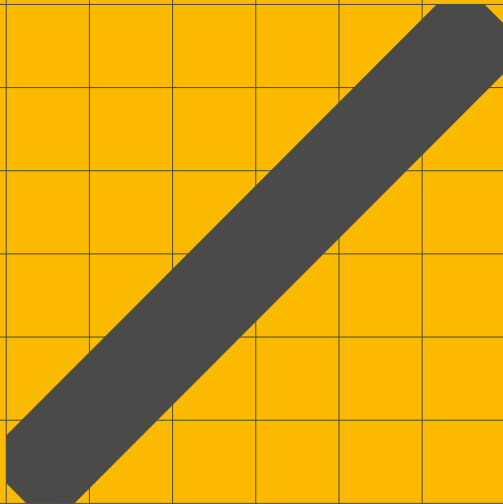


Long lifetime



Ball screw technology





Electric cylinders

CASM-25



Features

- Compact design: 36 × 36 mm body section dimension
- High load capacity (Static 2,6 kN, dynamic 300 N)
- High positioning accuracy and repeatability due to precision ball screw
- High duty cycles
- Virtually maintenance-free
- Push tube with anti-rotation function

Benefits

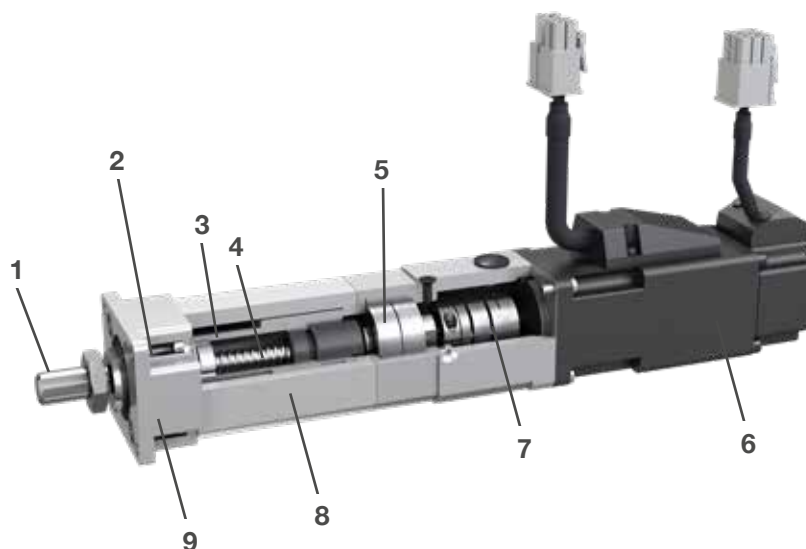
- Designed for Automation and Electronics Industry
- Cost effective solution
- Compatible with any third party motor brand
- Easy installation
- Space saving solution
- Long life in operation

Product description

In addition to standard electrical cylinder product range, Ewellix offers an extensive customization program that is able to fulfill specific application needs.

The CASM-25 actuator is a customized solution designed for light automation applications and electronic manufacturing industry. This miniature actuator can deliver high static and dynamic force with precise motion and long life in operation.

Ewellix solution is based on a high precision ballscrew SD8 x 2,5, with a full aluminium body, resulting in a very compact solution with high power density.



1. Male thread on push rod (customization upon request)
2. Scrapper on the front to keep out contaminants
3. Steel push rod
4. High quality Ewellix ball screw
5. High quality SKF bearings
6. Servomotor
7. Motor adapter with coupling
8. Aluminium body
9. Front mount

CASM-25

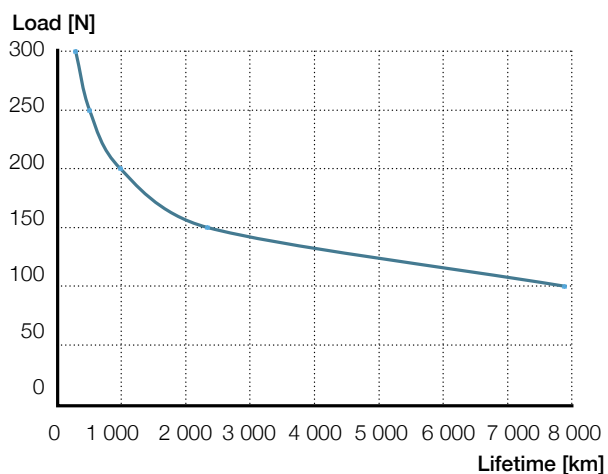
Linear unit



Technical data

Designation	Symbol	Unit	CASM-25
Performance Data			
Max. dynamic axial force	F_{max}	N	300
Max. static axial force	F_{0max}	N	2 600
Dynamic load capacity	C	N	2 042
Maximum torque to reach F_{max}	M_{max}	Nm	0,15
Max. linear speed	V_{max}	mm/s	125
Max. rotation speed	n_{max}	1/min	3 000
Max. acceleration	a_{max}	m/s ²	4
Duty cycles	D_{unit}	%	100
Mechanical Data			
Screw type	–	–	Ball screw
Screw diameter	D_{screw}	mm	8
Screw lead	P_{screw}	mm	2,5
Lead accuracy	–	–	G7
Stroke	S	mm	20-50
Backlash	$S_{backlash}$	mm	0,07
Efficiency	η_{lu}	%	80
Inertia @ 20 mm stroke	J	10 ⁻⁴ kgm ²	0,019
Inertia @ 50mm stroke	J	10 ⁻⁴ kgm ²	0,022
Weight @ 20 mm stroke	m	kg	0,5
Weight @ 50 mm stroke	m	kg	0,6
Environment			
Ambient temperature	$T_{ambient}$	°C	0~+50
Max. humidity	ϕ	–	90
Degree of protection	IP	–	54S

Performance diagram



CASM-25

Servomotor, inline configuration

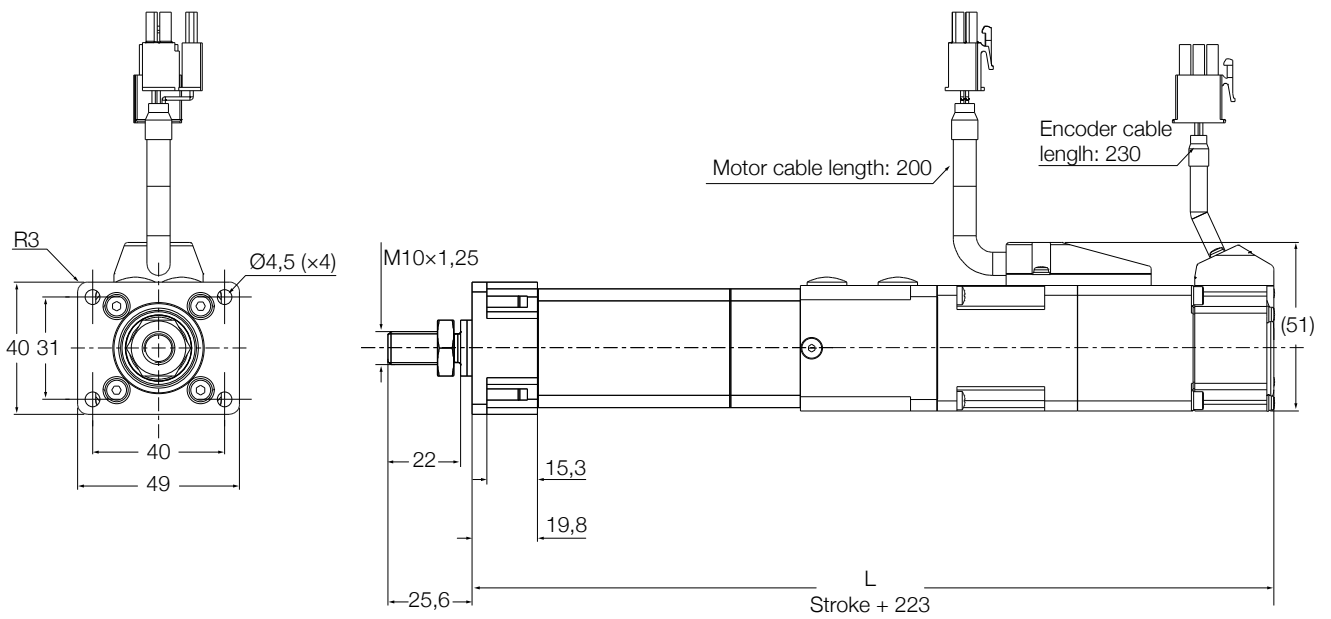
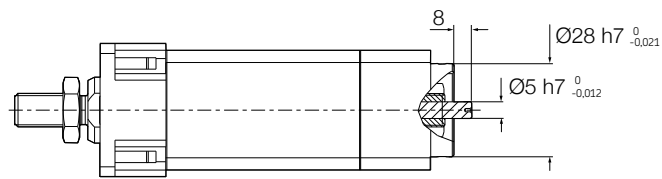
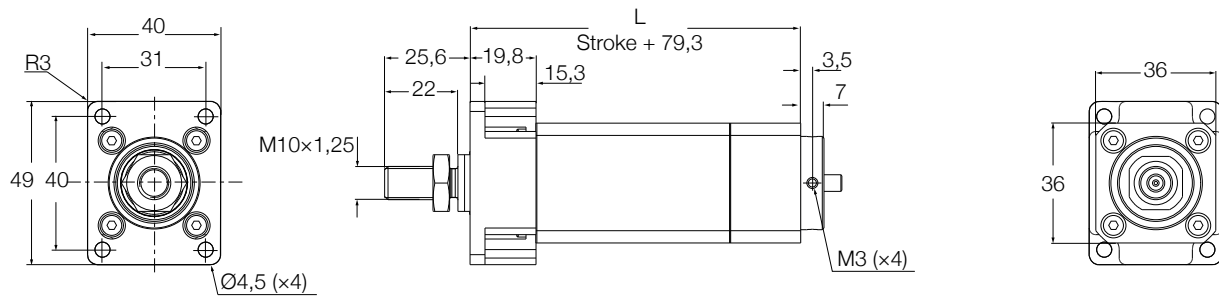


Technical data

Designation	Symbol	Unit	Servo motor MSMF5AZL1V1M
Performance Data			
Continuous force @ zero speed	F_{c0}	N	300
Continuous force @ max. speed	F_c	N	300
Peak force @ zero speed	F_{p0}	N	300
Peak force @ max. speed	F_p	N	300
Dynamic load capacity	C	N	2 042
Holding force	F_{hold}	N	600
Max. linear speed	V_{max}	mm/s	125
Max. acceleration	a_{max}	m/s ²	2,6
Duty cycles	D	%	100
Mechanical Data			
Screw type	–	–	Ball screw
Screw diameter	D_{screw}	mm	8
Screw lead	P_{screw}	mm	2,5
Lead accuracy	–	–	G7
Stroke	S	mm	20~50
Backlash	$S_{backlash}$	mm	0,07
Gear reduction	i	NA	1
Efficiency ¹⁾	η	%	72
Inertia @ 20 mm stroke	J	10 ⁻⁴ kgm ²	0,048
Inertia @ 50mm stroke	J	10 ⁻⁴ kgm ²	0,051
Weight @ 20 mm stroke	m	kg	1,1
Weight @ 50 mm stroke	m	kg	1,2
Environment			
Ambient temperature	$T_{ambient}$	°C	0~+50
Max. humidity	ϕ	%	90
Degree of protection	–	–	54S

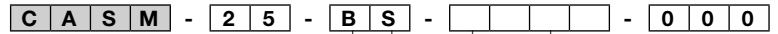
¹⁾ Value not including drive efficiency

Dimensional drawing



Ordering key

Linear units



Screw
BS 8x2,5

Stroke
020 mm
030 mm
040 mm
050 mm

Option¹⁾
A Motor adapter and accessories separately delivery
B Motor, adapter and accessories pre-mounted

¹⁾ Motor, adapter kit and accessories need to be ordered separately

Motor and drive

	Ordering key	Model
Motor	M0112375	Panasonic MSMF5AZL1V1M
Drive	M0112381	Panasonic MADLT05SF
Motor interface	M0112374	Inline adapter





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