

EWELLIX

MAKERS IN MOTION

Electric cylinders CASM-25



Compactness



Lightweight

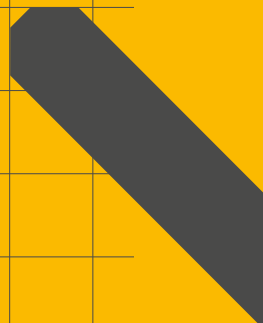
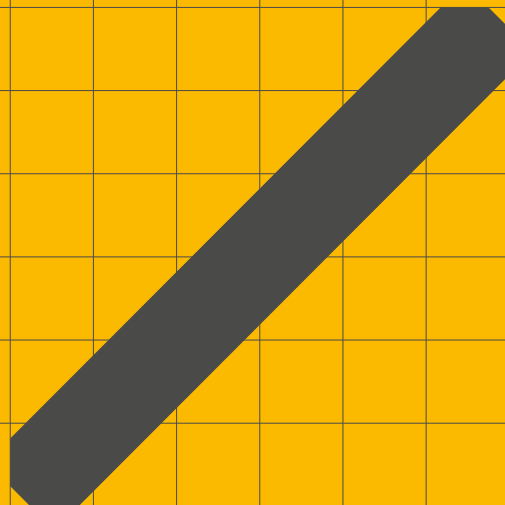
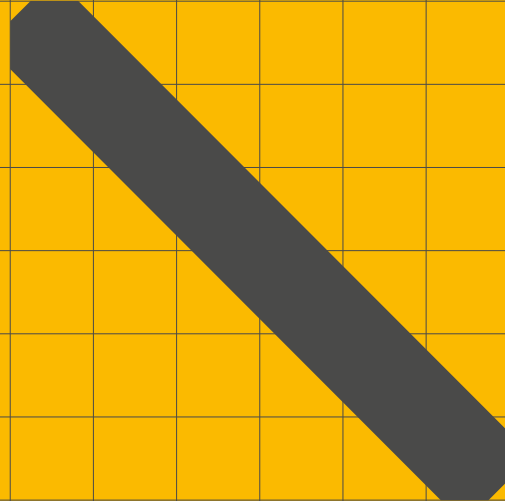


Long lifetime



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

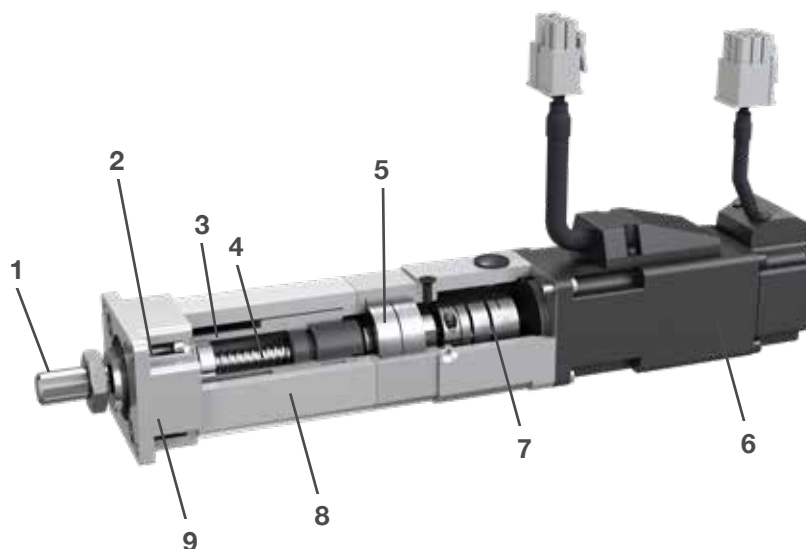
- Designed for Automation and Electronics Industry
- Cost effective solution
- Compatible with any third party motor brand
- Easy installation
- Space saving solution
- Long life in operation

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 × 2,5, with a full aluminium body, resulting in a very compact solution with high power density.



1. Stainless steel push tube
2. Shaft seal to protect against contaminants ingress
3. Sinter filter for high airflow
4. Flat seal between housings
5. High quality ball and lead screws with low axial play and low friction, lubricated for the whole product life
6. Magnet ring for proximity sensors
7. Anti-rotation device with overload protection
8. High-quality SKF bearings
9. Anodised aluminium profile with proximity sensor slots

CASM-25

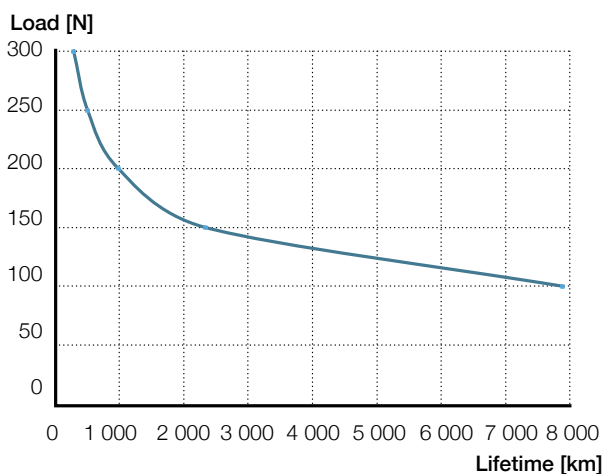
Linear unit



Technical data

| Designation | Symbol | Unit | CASM-25 |
|-----------------------------------|----------------|-----------------------------------|------------|
| Performance Data | | | |
| Max. dynamic axial force | F_{max} | N | 300 |
| Max. static axial force | $F0_{max}$ | 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

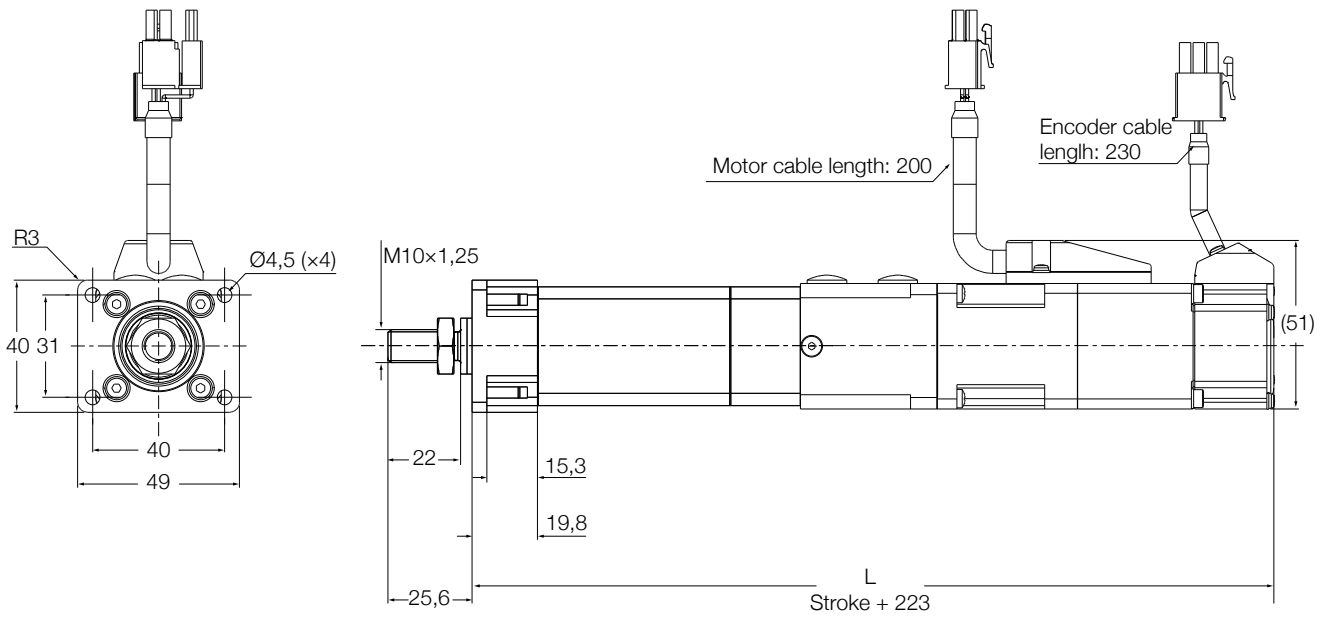
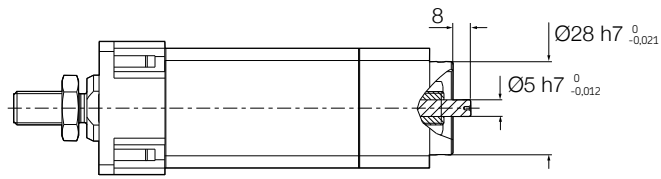
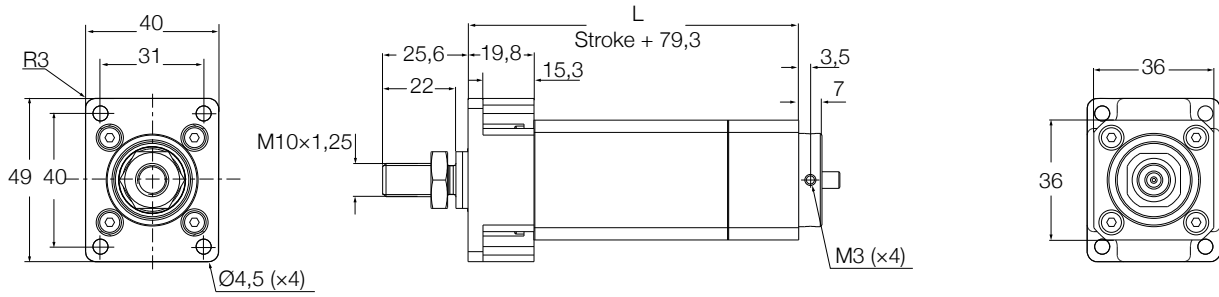


Technical data

| 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

C A S M - 2 5 - B S - [] [] [] [] - 0 0 0

Screw

BS 8x2,5

Stroke

020 mm

030 mm

040 mm

050 mm

Option¹⁾

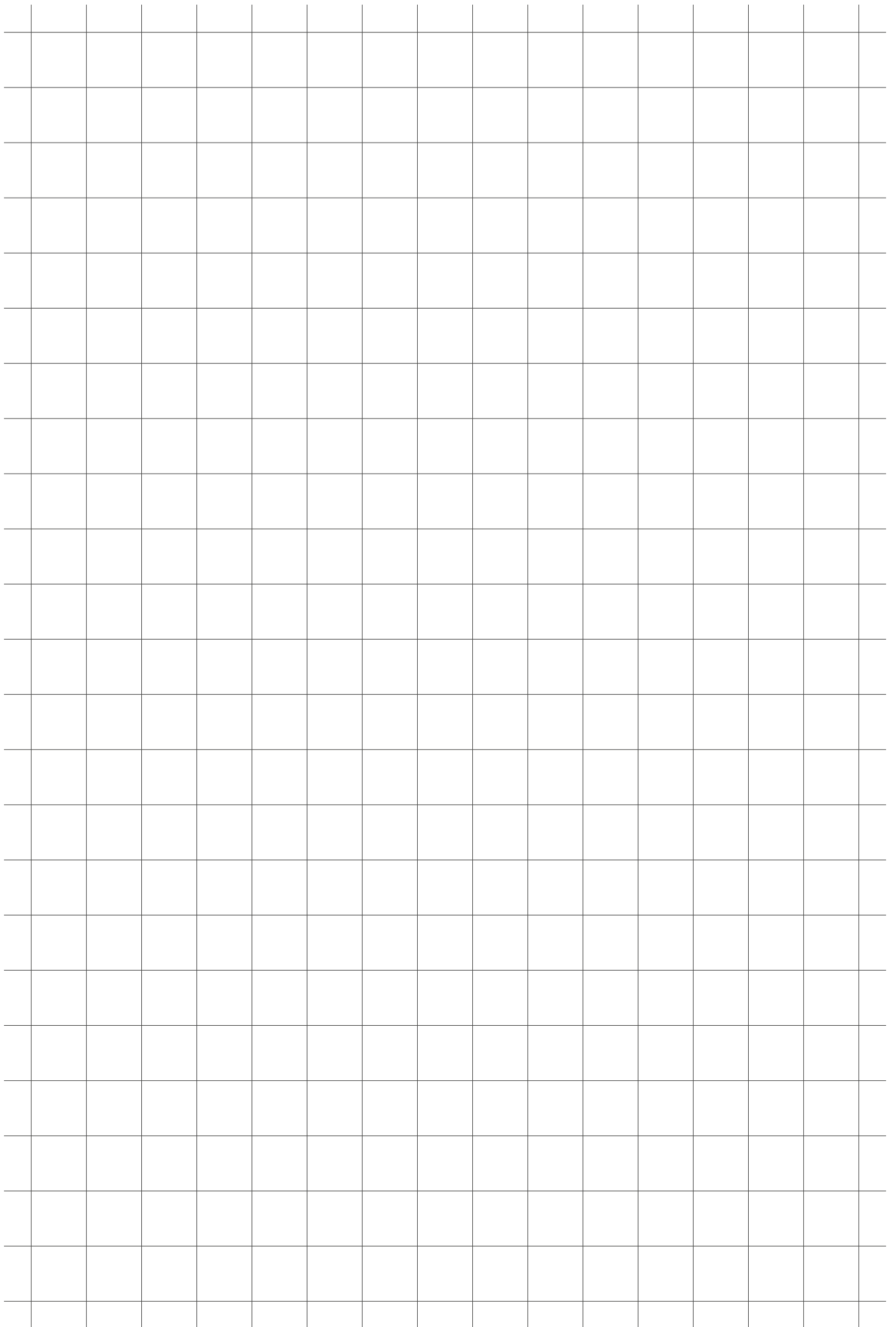
A Motor adapter and accessories separately delivery

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 |





ewellix.com

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PUB IL-07015/1-EN-May 2020