

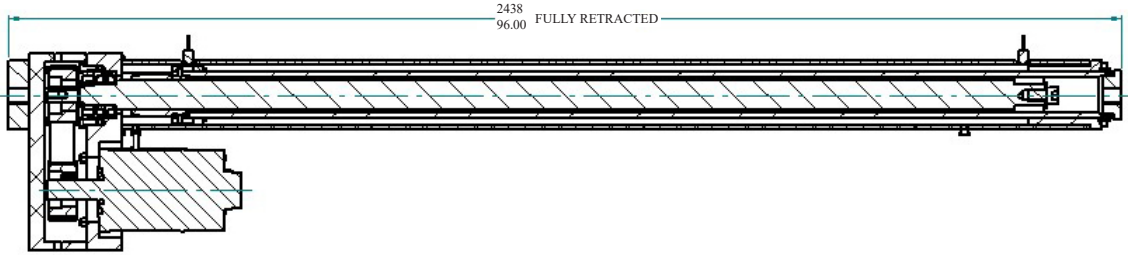


A4800 Actuator

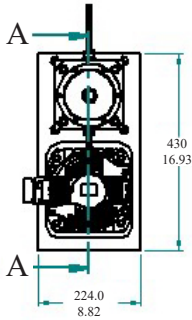
Mikrolar actuators are repeatable, accurate, stiff and durable. They are designed for the most challenging industrial applications and environments. Each of our actuators can also be customized to fit your application. Just let us know about any specific stroke, load, speed or footprint requirements. Our actuators can fit virtually any motor or gearbox the customer requires.

A Series:	INCH	METRIC
Stroke	70.9 in	1800 mm
Screw Diameter	2.48 in	63 mm
Screw Lead: 10mm std (2mm & 5mm optional)	0.39 in	10 mm
Max Velocity	19.69 in/sec	500 mm/sec
Nominal Velocity	9.8 in/sec	249 mm/sec
Dynamic Load Rating	12,792 lbs	5,814 kg
Max Static Load	34,508 lbs	15,685 kg
Weight (w/out motor)	434 lbs	197 kg

- Environmental Rating: IP54 (std) - IP65 (optional)
- Optional adjustable limit switches
- Available in various mounts:
 - Front and rear flange
 - Clevis
 - Trunnion



SECTION A-A



MADE in the USA

7 Scott Road, Suite 5 Hampton, NH 03842
 phone: (603) 617-2508 fax: (617) 849-5850



www.mikrolar.com
sales@mikrolar.com



Mikrolar Actuators



Mikrolar is now offering its proprietary actuators for sale.

In the production of a quality Stewart Platform, actuator accuracy, axial and radial rigidity are essential.

Why use Mikrolar actuators?

- **Stiffness**
- **Accuracy**
- **Repeatability**

Axial Stiffness:

Most actuators have decent axial stiffness, the ability to resist tension and compression along the length of the rod. (See Fig. 1) Most people equate this with rod diameter and diameter of the screw. But they also need to take into account any backlash from preload on the nut, the drive train and anti-rotation devices. Axial stiffness directly determines accuracy of length, and results in chatter if done poorly.

Radial Stiffness:

Most actuators **do not have** very good radial stiffness, the ability to resist forces from the side. While this might have only a very small affect on the overall length of the actuator (the delta difference is minor) it can cause huge stiffness issues. Radial stiffness directly determines machine stiffness.

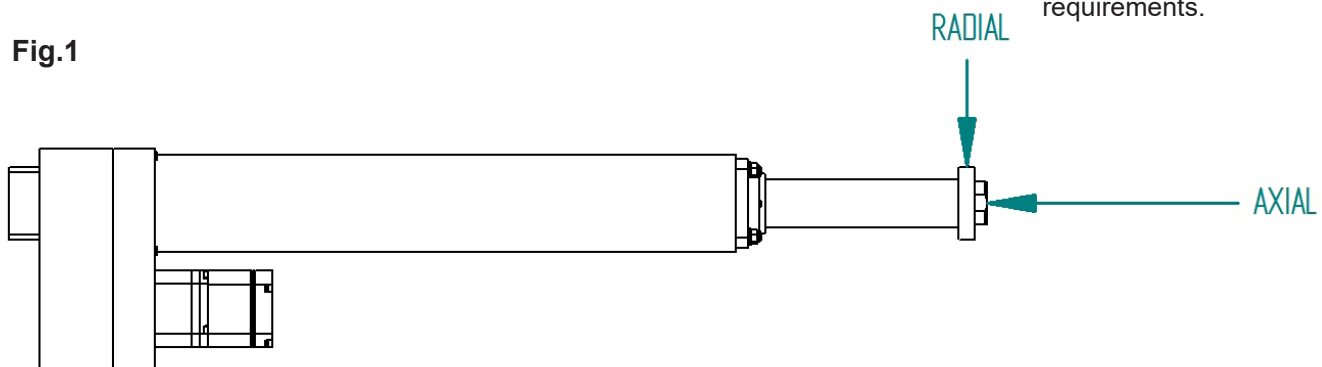
P2100 Hexapod with Mikrolar actuators.



Mikrolar also designs and produces high precision positioning systems for use in a wide variety of applications. Our robots are based on a hexapod system, offering high load capacity and range of movement while maintaining a high degree of precision and repeatability.

Our systems are designed to be customized to fit a variety of applications. Please contact us to discuss how we can create a robotic system to satisfy your requirements.

Fig.1



MADE in the USA



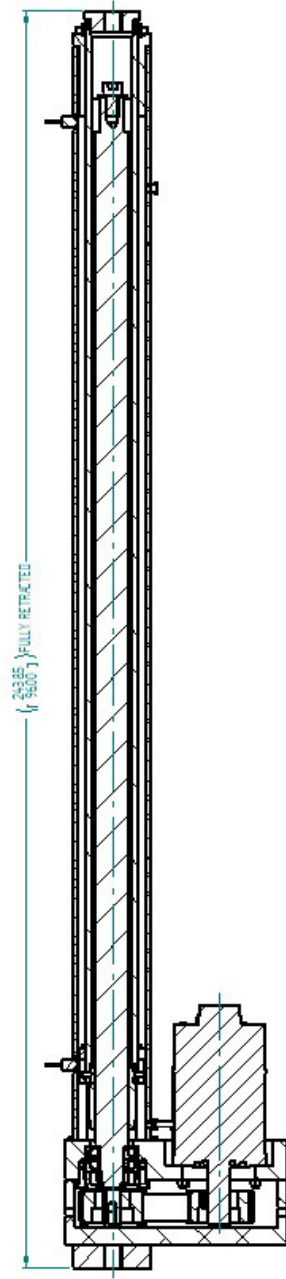
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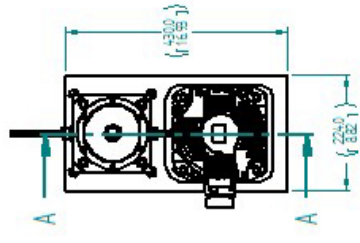


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REV	DESCRIPTION	DATE	APPROVED
A			



SECTION A-A



LEAD SCREW SPECIFICATIONS:
 DIAMETER: 6.3 mm
 LEAD: .10 mm
 NOMINAL RPM: XXXX
 MAXIMUM RECOMMENDED RPM: XXXX
 DYNAMIC LOAD RATING: 0,792 LBS
 STATIC LOAD RATING: 34,50.8 LBS
 NUT SPRING RATE: XXX LB/IN
 TORQUE TO RAISE 1 LB: XXX LB-IN

STANDARD SERVO MOTOR SPECIFICATIONS:
 TORQUE-CONT: 42.4.9 LB-IN
 TORQUE-MAX: 0.53.3 LB-IN
 CONT. RPM: 1500
 MAX RPM: 3000

ACTUATOR SPECIFICATIONS:
 STROKE: 70.9 IN
 FORCE-CONT: 6.63 LBS (MOTOR LIMITED)
 FORCE-MAX: 15.20.9 LBS (MOTOR LIMITED)
 NOMINAL SPEED: 9.8 IN/SEC
 MAXIMUM RECOMMENDED SPEED: 19.6.9 IN/SEC
 XXX IN/SEC PER 1000 RPM
 WEIGHT: XXX LBS

UNLESS OTHERWISE SPECIFIED		NAME	DATE	MIRROLAR INC.
DECIMAL TOLERANCES:	XXX ± .025	DRAWN	DATE	7 800 FT ROAD SUITE 5
	XX ± .03	CHECKED	DATE	MANASSAS, VA 22042
	X ± .1	ENG. APPR.	DATE	
	X ± .2	MECH. APPR.	DATE	
ANGLES	80° MIN	UNLESS OTHERWISE SPECIFIED		
SURFACE FINISH	125 RMS	DIMENSIONS ARE IN MILLIMETERS		
		REWORK ALL BURS AND		
		BREAK SHARP EDGES		
		TITLE	MIRROLAR ACTUATOR	
		SEE DRAWING NO.	AA-800-000-070-010-B	
		FILE NAME	AA800-000-070-010-B.DWG	
		SCALE	AS SHOWN	
		SHEET 1 OF 1		