LAR31 Series

Linear & Rotary Actuator

Linear (moving coil) & Rotary (brushless motor) motion
Prevent common dust problem in the nozzle
100 million life cycle without maintenance

SMAC

Moving Coil Actuators

LAR31 Series

Stroke [mm]	**30 +1/-0 mm**
Peak Force [N]	**11@1.5A**
Rotary Encoder Resolution	**40,960cout/rev (0.0088°)**

RELIABILITY

- The vacuum passage built in the shaft through the rotary motor prevents dust build up in the unit
- > 10,000 units sold
- > 100 million cycles
- Linear (moving coil) & Rotary (brushless motor) motion

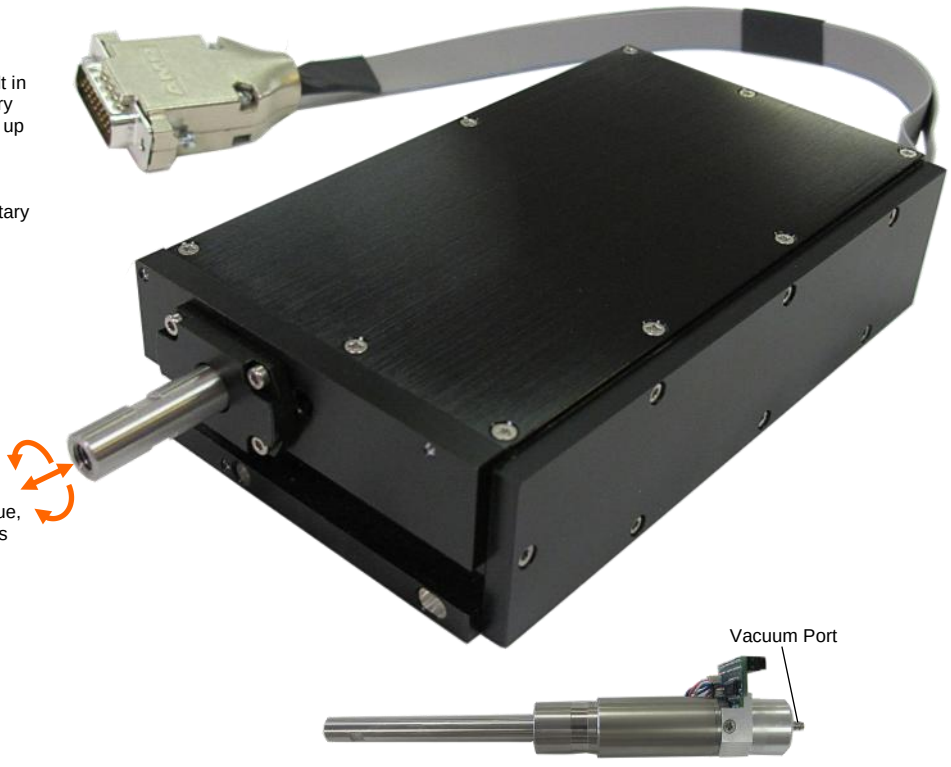
PRECISE FORCE & POSITION CONTROL

- Linear Resolution: 5µm standard (1µm and 0.1µm option)
- Force resolution: 0.04N
- Ability to "**Soft-Land**" delicate parts to avoid damage

PROGRAMMABILITY

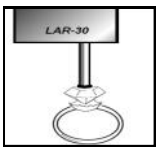
- Programmable force/torque, position, velocity in all axis

Custom shaft & mounting location available

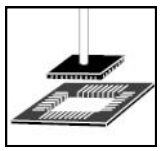


'Direct' vacuum passage runs through the shaft and rotary motor.

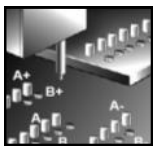
Applications

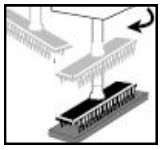


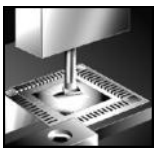
Pick, Orient & Press


IC Handling

Screw Driver


Gauging & Sorting Parts


High Resolution Rotary


Chip Bonding

www.smac-mca.com

PART NUMBERING

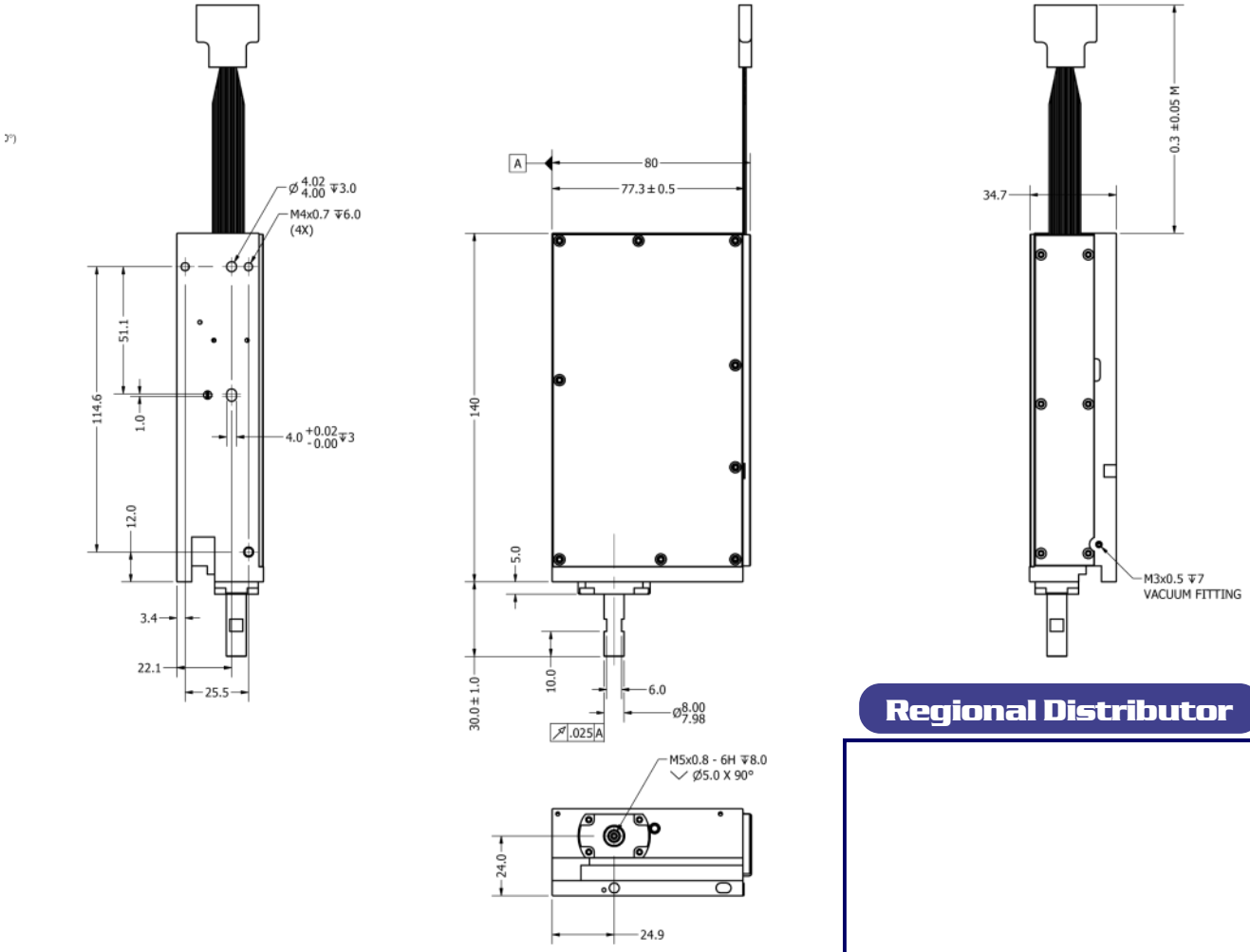
MODEL SERIES		STROKE			VOLT	ENCODER		SHAFT	VACUUM	SPRING						
LAR 3 1	-	0	3	0	- 5		-		V	S	-	M	0	D		

5	= 24VDC SINGLE COIL	1	= 1.0µm	B	= BLANK
7	= 48VDC SINGLE COIL	2	= 0.1µm	F	= FEMALE
		5	= 5.0µm	M	= MALE
				C	= CUSTOM

SPECIFICATION

Dimension [mm]:	80 x 140 x 34.7 (LAR31-030-5)	Linear stroke [mm]:	30 (+2/-0mm)
Encoder resolution [µm]:	5.0 standard (1.0 and 0.1 option)	Encoder accuracy:	±2 encoder counts
Peak force [N]:	11 @ 1.5A (24VDC)	Force constant [N/A]:	7 (24VDC)
Moving mass [kg]:	0.19	Total mass [kg]:	0.84
Operation voltage [VDC]:	24	Operating temperature[°C] :	5 to 40
Shaft run-out [µm]:	≤30	Vacuum port:	M3
Maximum torque [Nm]:	0.06 (brushless motor standard)@3A	Rotary encoder resolution:	40,960 count/rev (0.0088°)

DIMENSIONS (LAR31-030-5)



Regional Distributor

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Specifications subject to change without notice.