

Daedal

*402000LN Series
Linear Positioning
Tables*

New...with Ballscrew Drive

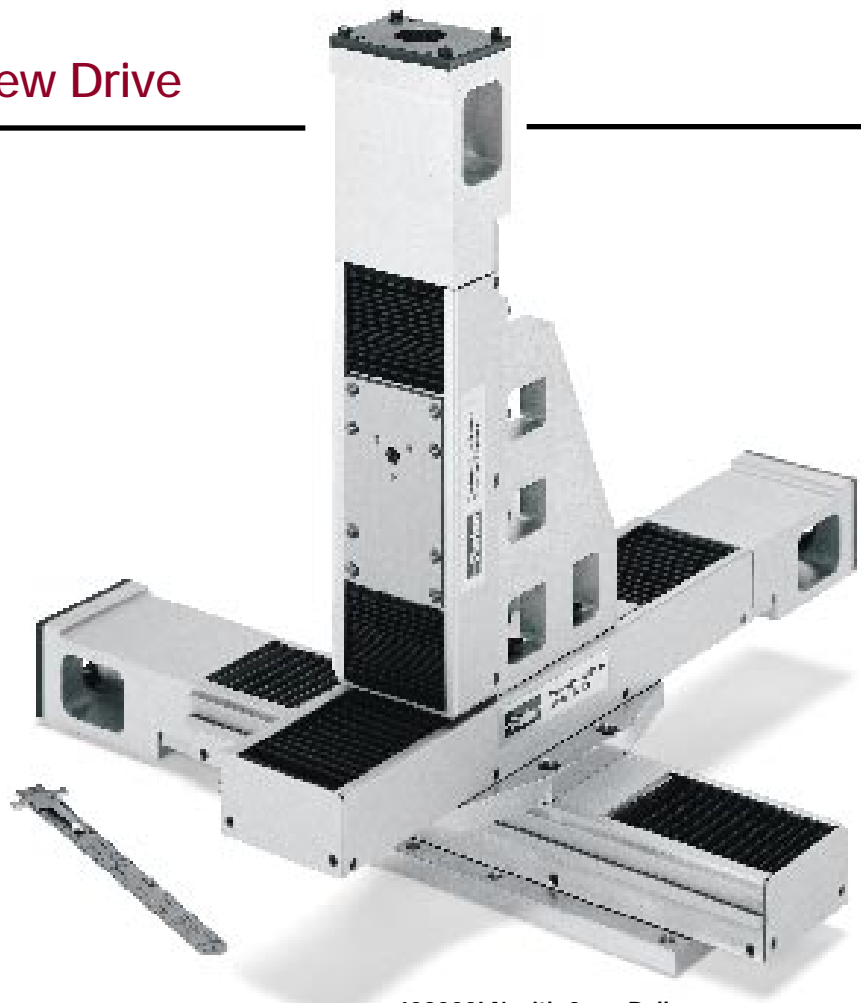
Catalog 000-9134-01



402000LN with Ballscrew Drive

402000LN Series

Daedal now offers you an optional upgrade ballscrew drive for the 402000LN linear positioning table. The ballscrew option provides enhanced capability in several key performance criteria including: service life at specification and duty cycle capacity. Rated service life is increased by a factor-of-ten to 2500 km with 100% continuous duty operations at translation speed up to 140 mm/sec. With the optional ballscrew, the 402000LN addresses linear motion applications where high throughput capability and compact size are essential.

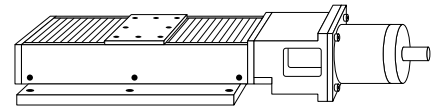


402000LN with 2mm Ballscrew

Specifications

		402002LN		402004LN	
Travel – inches (mm)		2	(50)	4	(100)
Life @ Listed Specifications – x 1 million inches (km)	Both grades	100	(2500)	100	(2500)
Positional Accuracy x 0.001 in (µm)	Standard Grade	0.78	(20)	0.89	(23)
	Precision Grade	0.39	(10)	0.43	(11)
Positional Repeatability x 0.001 in (µm)	Standard Grade	±0.2	(±5)	±0.2	(±5)
	Precision Grade	±0.117	(±3)	±0.117	(±3)
Straight Line Accuracy x 0.001 in (µm)	Standard Grade	0.78	(20)	0.85	(22)
	Precision Grade	0.23	(6)	0.23	(6)
Flatness Accuracy – 0.001 in (µm)	Standard Grade	0.78	(20)	0.85	(22)
	Precision Grade	0.23	(6)	0.23	(6)
Max Screw Speed – rps	Standard & Precision	70		70	
Max Acceleration – in/sec ² (mm/sec ²)	Standard Grade	386	(9800)	386	(9800)
	Precision Grade	386	(9800)	386	(9800)
Duty Cycle – % of motion to dwell per cycle	Standard & Precision	100		100	
Direct Loading* – lbs (kgf)	Normal	160	(72,7)	160	(72,7)
	Inverted	40	(18,2)	40	(18,2)
Load per Bearing – lbs (kgf)	Both Grades, Normal	40	(18,2)	40	(18,2)
	Both Grades, Inverted	10	(4,5)	10	(4,5)
Axial Loading – lbs (kgf)	Both Grades	28	(12,7)	28	(12,7)
Input Inertia – 10 ⁻³ oz-in-sec ² (10 ⁻⁶ kg-m-sec ²)	Both Grades	0.314	(0,226)	0.343	(0,247)
Maximum Running Torque – oz-in (N-m)		12	(0,0847)	12	(0,0847)
Maximum Breakaway Torque – oz-in (N-m)		13	(0,0932)	13	(0,0932)
Drive Screw Efficiency–Standard & Precision Ballscrew – %		90		90	
Coefficient of Linear Bearing Friction		0.01		0.01	
Carriage Weight – lbs (kgf)		0.14	(0,06)	0.14	(0,06)
Longitudinal Span between Bearing Truck Centers (d1) – in (mm)		1.485	(37,7)	1.485	(37,7)
Lateral Span between Bearing Rail Centers (d2) – in (mm)		1.456	(37,0)	1.456	(37,0)
Bearing Rail Center to Carriage Mounting Surface (da) – in (mm)		0.541	(13,7)	0.541	(13,7)
Table Weight - lbs (kgf)		1.84	(0,83)	2.54	(1,15)

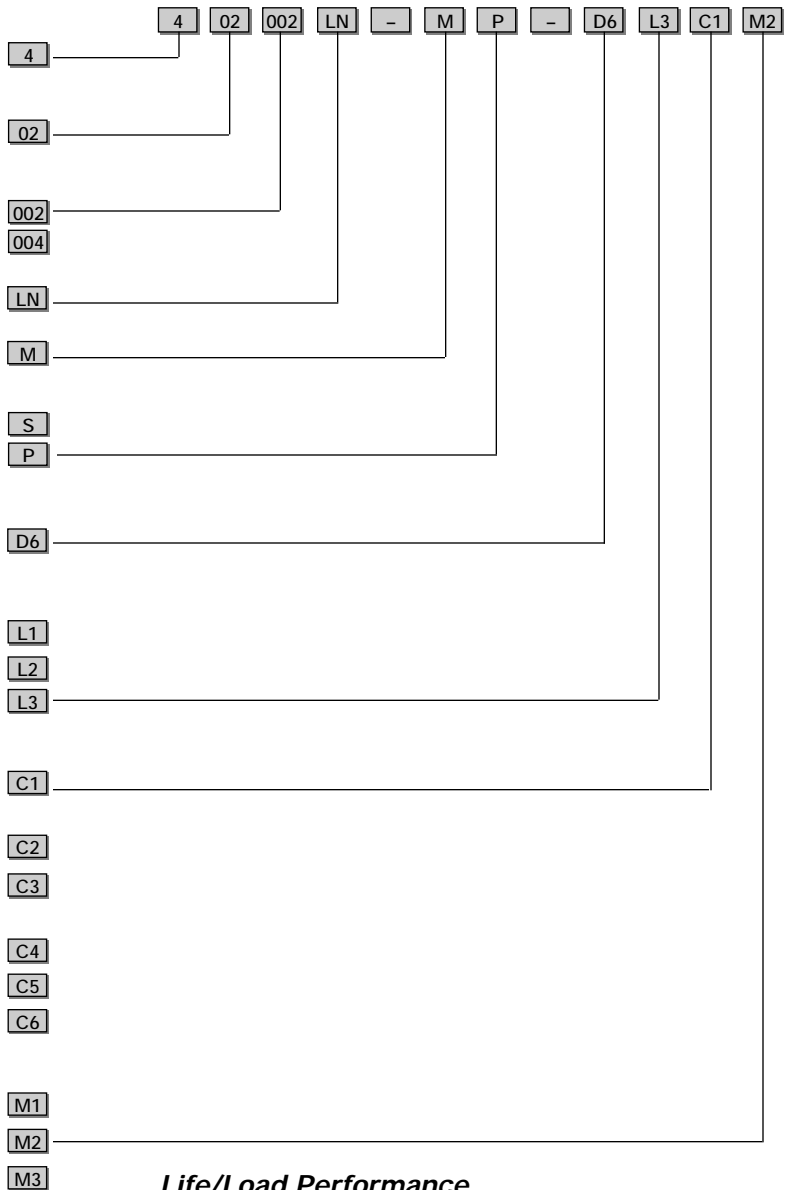
402000LN with Ballscrew Drive



How to Order

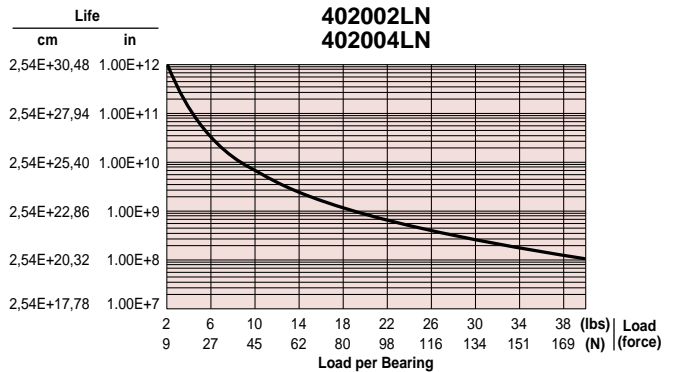
- Model Series**
- Cross Section** 2 in
- Table Travel**
50 mm
- 100 mm
- Table Style**
- Mounting, Metric**
- Grade**
Standard Grade
- Precision Grade
- Drive Screw**
2 mm Lead Ballscrew
- Limit/Home**
No Limit/Home Switches
- Hall Effect Sensors
- Fixed Optical Limit/Home Switches
- Motor Coupling**
No Coupling
- Standard Grade
0.25 in Bore, Oldham
- 5 mm Bore, Oldham
- Precision Grade
0.25" Bore, Bellows
- 5 mm Bore, Bellows
- 0.375 in Bore, Bellows
- Motor Mount**
NEMA 23
- SM16 for SM16 servo motors
- NEMA 17

Order Example



Life/Load Performance

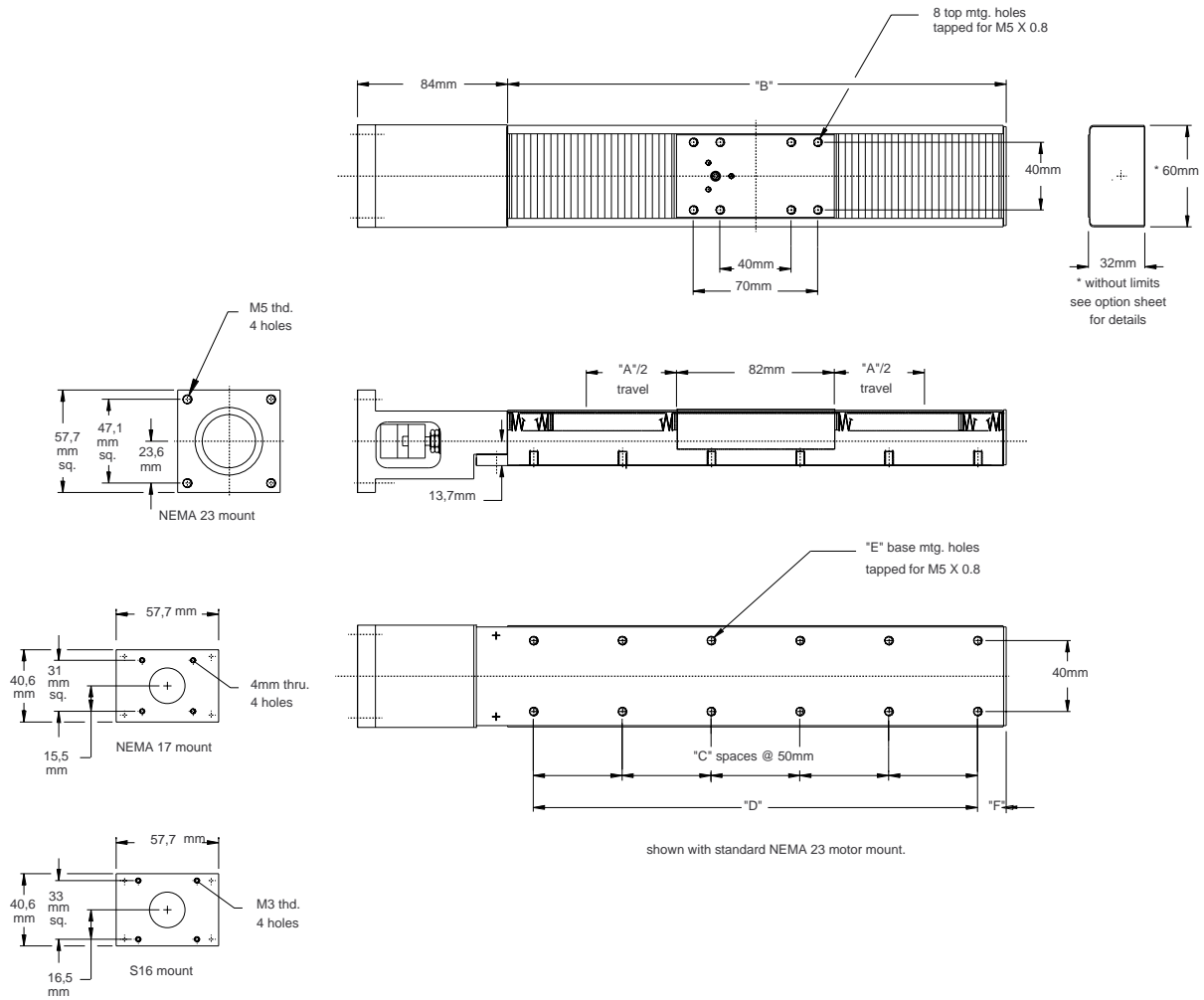
Life for Compression, Tension or Side Load*



* Refer to Daedal Manual & Motorized Positioning Systems Catalog 000-9132-01, page B7-B15 for complete load/life calculation formulas and specifications.

402000LN with Ballscrew Drive

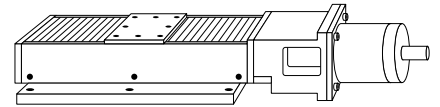
Dimensions



Selection

Model Number	A Travel	B	C Quantity	D	E Quantity	F
402002LN	50 mm	167 mm	3	150 mm	8	8 mm
402004LN	100 mm	240 mm	3	150 mm	8	45 mm

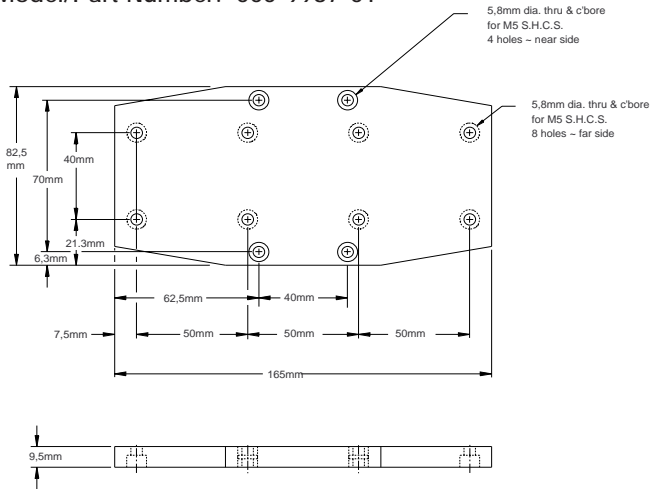
40200LN with Ballscrew Drive



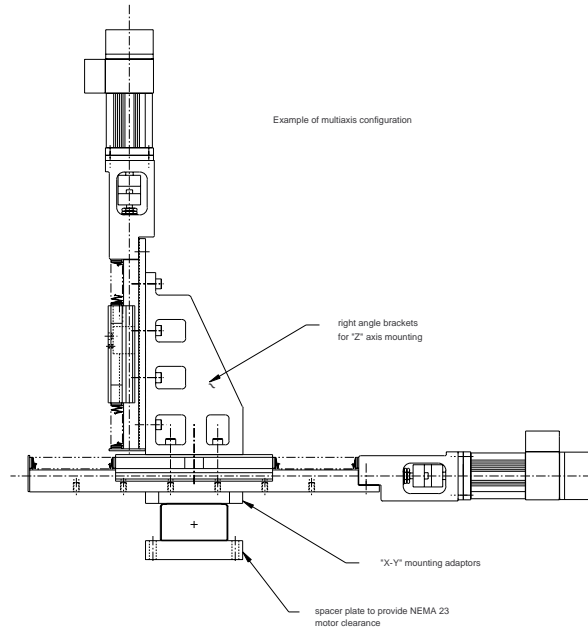
Options and Accessories

X-Y Adapter Plate

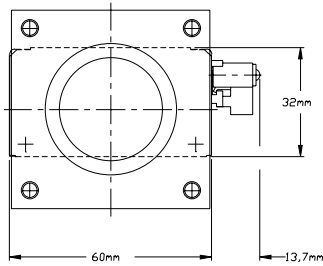
Model/Part Number: 000-9987-01



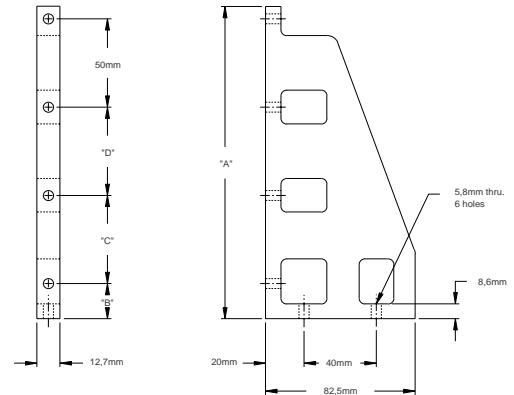
Example of Multi-Axis Mounting



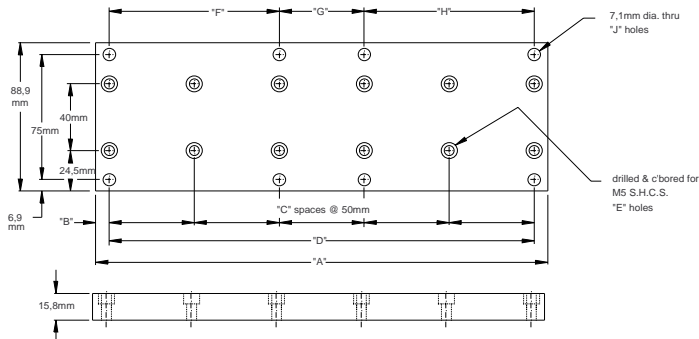
L2 Option (Added Width)



Vertical Brackets



Base Axis Spacer Plate



Model/Part Number	A	B	C	D	Used On:
100-0160-01	180 mm	20 mm	50 mm	50 mm	402002
100-0160-03	210 mm	50 mm	50 mm	50 mm	402004

Model/Part Number	A	B	Quantity C	D	Quantity E	F	G	H	J	Used On:
100-0248-01	165 mm	7.5 mm	3	150 mm	8	150 mm	—	—	4	402002/402004

We have the people and the products to solve your application needs.

At Daedal, Hauser, Automation Actuator, Compumotor and Digiplan, we understand the demands of the positioning systems marketplace. Throughout Europe, the Pacific Rim and North America, our products are delivered and supported through a comprehensive network of factory-trained Automation Technology Center engineers. In addition to the services offered by traditional distributors, these organizations specialize in the application of high technology automation equipment. They offer local product availability, product demonstrations, complementary products and services, programming assistance and in-depth customer seminars.

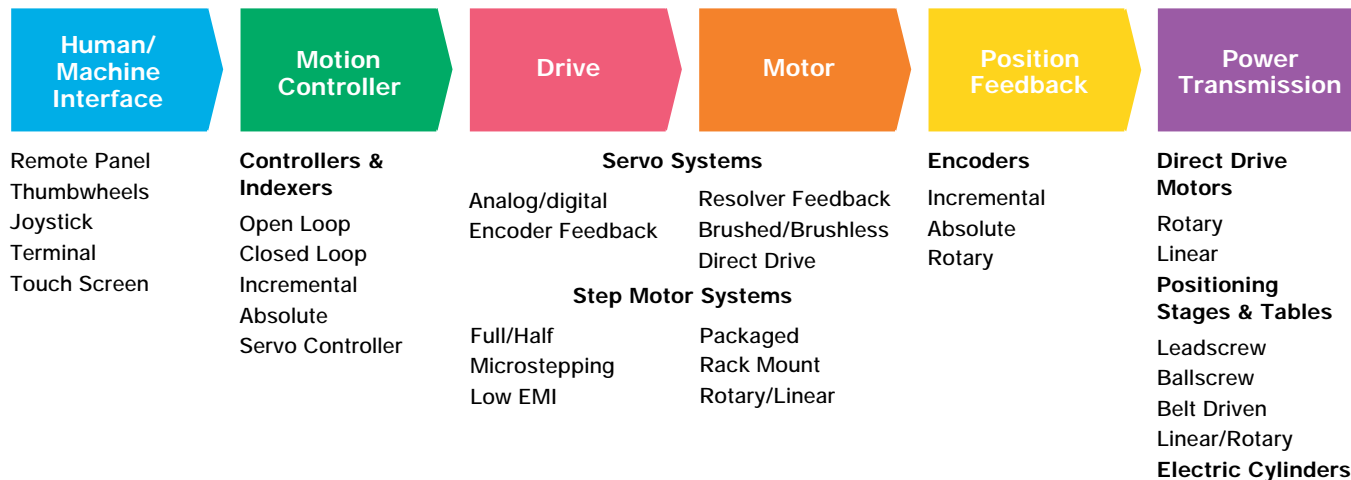
Every company promises service, but Daedal, Hauser, Automation Actuator, Compumotor and Digiplan have the people to assure timely, expert support. For example, our North American ATC Network has more than 150 factory-trained engineers. These field application engineers are ready and prepared to offer assistance in product selection, installation and product/system programming.

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