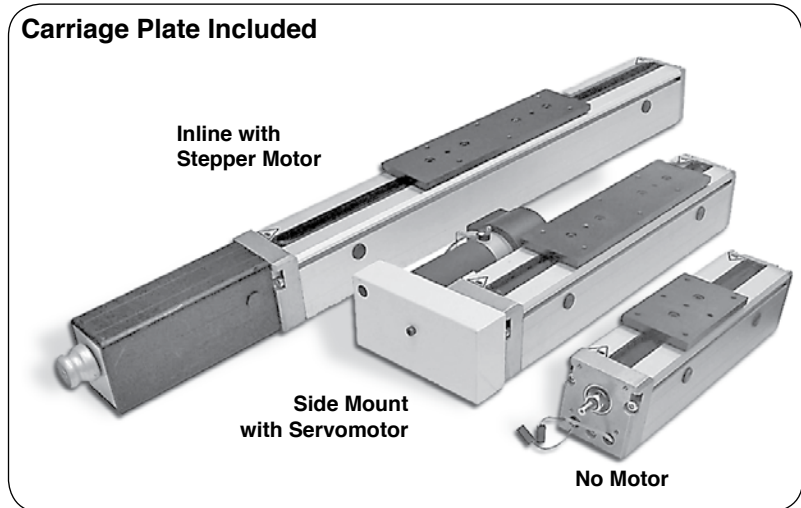


FEATURES:

- Constructed from Series 400 Double Rail, a **single rigid aluminum extrusion profile** with aluminum end plates
- Compact, modular design with T-Slots on 3-sides for easy mounting
- Available with many motor options
- Fitted with plastic seals to guard against contaminants
- Home reference and far end limit switch with a repeatability of ± 0.01 mm ($\pm .0004$ in)
- Two precision steel rails $\varnothing 12h6$ with either one or two **BEARING CARRIAGE 4's (HL46D0M223007)** steel bearing blocks hardened to HRC 62 ± 2
- Anti-backlash $\varnothing 16$ mm (.6 in) ball screw drives with pitches of 2.5 (.1), 5 (.2), 10 (.4) and 20 mm (.8 in) available
- Linear carriage is capable of speed up to 5 m/sec (16.4 ft/sec) (speed subject to motor and drive package)

Carriage Plate Included



HEAVY-DUTY SLIDE SELECTION

CATALOG NUMBER

HL31NPM

Screw Type
B Ball Screw
K Ball Screw with Side Mount Motor

Code

0390
0490
0590
0690
0790
0890
0990
1090
1190
1290
1390
1490
1790
1990
2490
2990

Motor Drive
X No Motor
V Servomotor (216W)
B Servomotor (216W) with 24V DC Brake
L Servomotor (145W)
M Servomotor (145W) with 24V DC Brake
S Stepper Motor
A Stepper Motor with 24V DC Brake
C Crank Handle

Setup
2 1 Carriage
3 2 Carriages

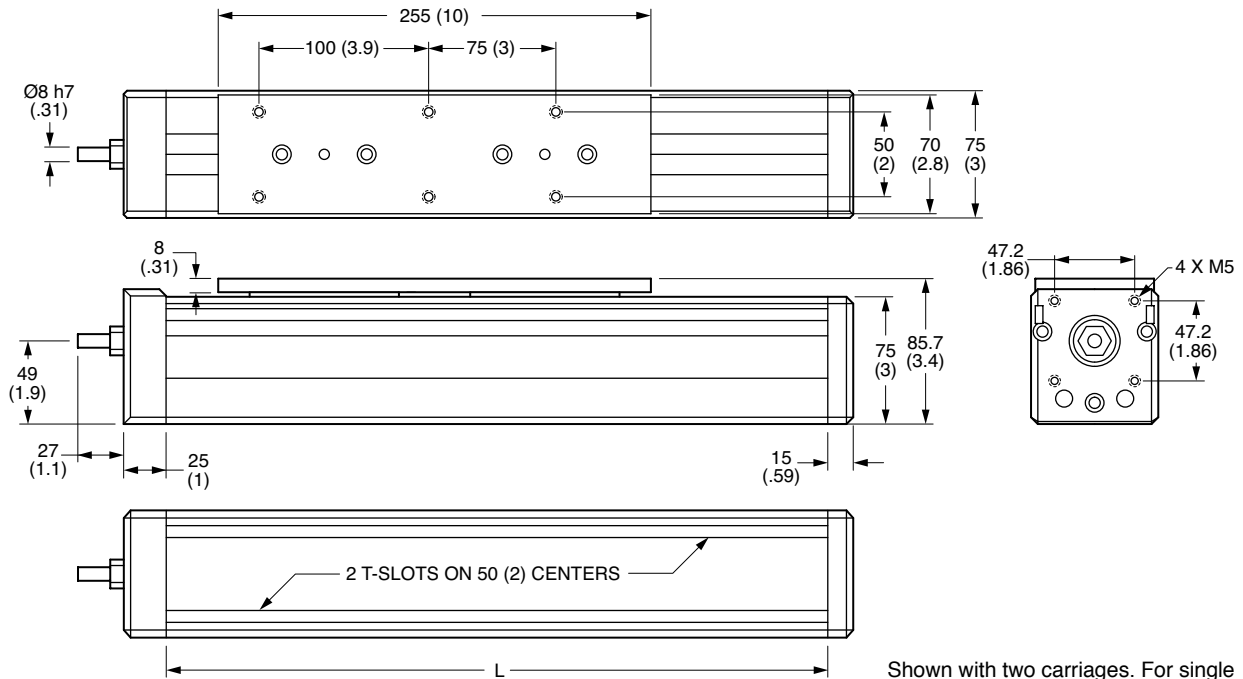
Pitch Code
00 No screw
02 2.5 mm (.1 in)
05 5 mm (.2 in)
10 10 mm (.4 in)
20 20 mm (.8 in)

Code	L Length mm (in)	Travel* mm (in)
0390	390 (15.4)	122 (4.8)
0490	490 (19.3)	222 (8.7)
0590	590 (23.2)	322 (12.7)
0690	690 (27.2)	422 (16.6)
0790	790 (31.1)	522 (20.6)
0890	890 (35)	622 (24.5)
0990	990 (39)	722 (28.4)
1090	1090 (42.9)	822 (32.4)
1190	1190 (46.9)	922 (36.3)
1290	1290 (50.8)	1022 (40.2)
1390	1390 (54.7)	1122 (44.2)
1490	1490 (58.7)	1222 (48.1)
1790	1790 (70.5)	1522 (59.9)
1990	1990 (78.3)	1722 (68)
2490	2490 (98)	2222 (87.5)
2990	2990 (117.7)	2722 (107.2)

*Travel spec is based on a slide with 2 bearings. For a slide with only one bearing, add 130 mm (5.1 in) to the travel. Dimension L is unchanged.

EXAMPLE: To order a Narrow Profile Slide 2 with 216W Servomotor (V), 10 mm (.4 in) Ball Screw (B), and 2 carriages (3), and 390 mm (15.4 in) length, the Catalog Number is **HL31NPMB0390103V**.

For mating connectors and cables, see page 119. For motor standoffs and couplings, see page 107.



Shown with two carriages. For single carriage drawing go to our Web site: www.technoautomation.com

SPECIFICATIONS

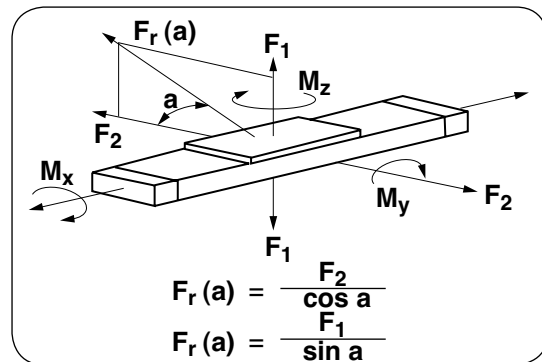
Repeatability	± 0.01 mm (± .0004 in)
Accuracy	± 0.1 mm / 300 mm (± 0.004 in / ft)

Motor Drive	Ball Screw Pitch mm (in)	Thrust Force @ Low Speeds, kg (lb)	No Load Speed mm/sec (in/sec)	Resolution mm (in)
Stepper Motor	2.5 (.1)	182 (400)	64 (2.5)	0.0062 (.0002)
	5 (.2)	91 (200)	127 (5)	0.0125 (.0005)
	10 (.4)	45 (100)	254 (10)	0.0250 (.0098)
	20 (.8)	23 (50)	508 (20)	0.0500 (.0197)
Servomotor	2.5 (.1)	226 (500)	77 (3)	0.0013 (.00005)
	5 (.2)	113 (250)	152 (6)	0.0025 (.00010)
	10 (.4)	57 (125)	305 (12)	0.0050 (.00020)
	20 (.8)	28 (62)	610 (24)	0.0100 (.00040)

Narrow Profile Slide 2

LOAD and MOMENT DATA

# of Carriages	1 Carriage	2 Carriage
Carriage Type	Bearing Carriage 4	Bearing Carriage 4
F1 Stat	800 N (179.8 lb)	1600 N (359.7 lb)
F1 Dyn	500 N (112.4 lb)	1000 N (224.8 lb)
F2 Stat	800 N (179.8 lb)	1600 N (359.7 lb)
F2 Dyn	500 N (112.4 lb)	1000 N (224.8 lb)
Mx Stat	12.6 N·m (111.52 lb·in)	25.2 N·m (223.02 lb·in)
My Stat	22 N·m (194.72 lb·in)	71.2 N·m (630 lb·in)
Mz Stat	12.6 N·m (111.52 lb·in)	25.2 N·m (223.02 lb·in)
Mx Dyn	7.4 N·m (65.49 lb·in)	14.8 N·m (130.98 lb·in)
My Dyn	13 N·m (115.06 lb·in)	44.7 N·m (395.64 lb·in)
Mz Dyn	7.4 N·m (65.49 lb·in)	14.8 N·m (130.98 lb·in)



NOTE: See formulas in load bearing mechanisms' section of technical section.

NOTE: Dimensions in () are inch