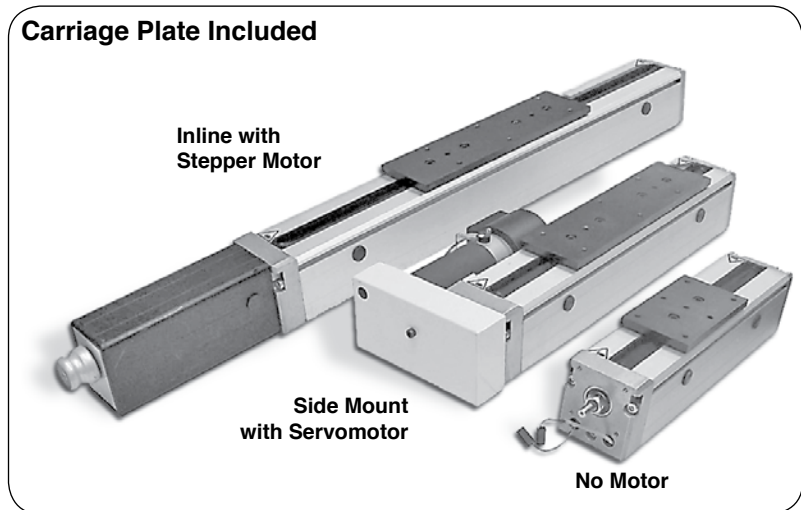


## FEATURES:

- 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  $\pm 0.01$  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  $\pm 2$
- 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

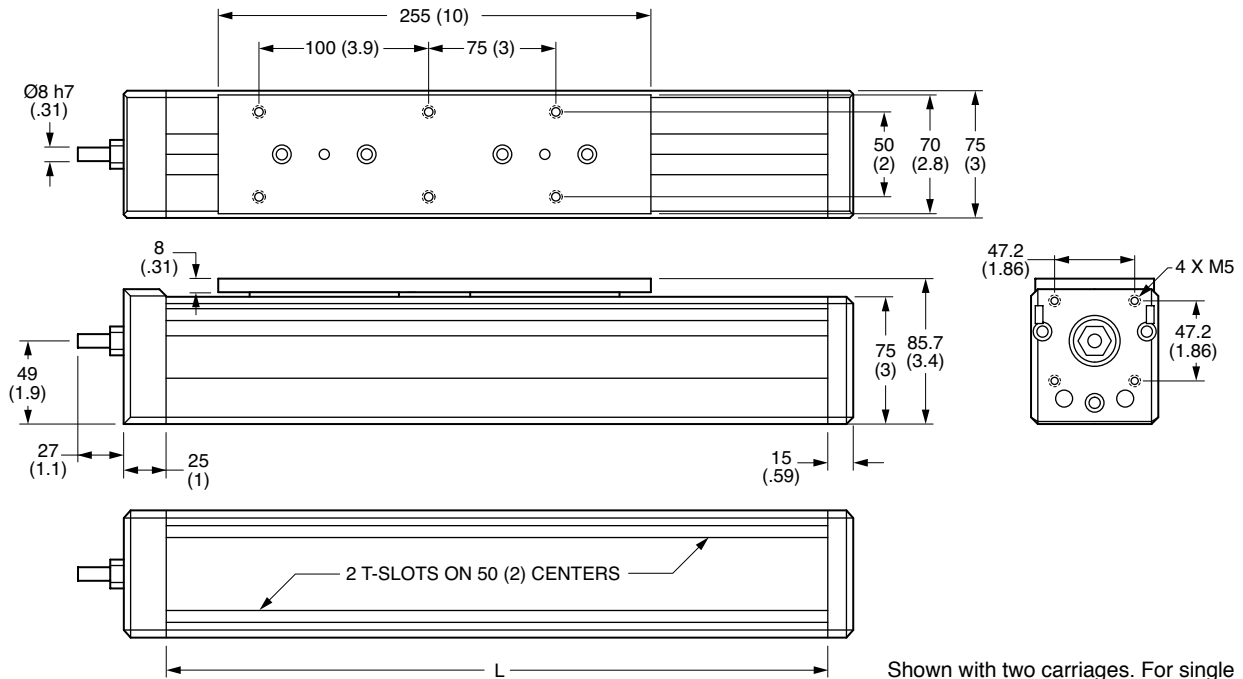
**Pitch Code**  
**00** No screw  
**02** 2.5 mm (.1 in)  
**05** 5 mm (.2 in)  
**10** 10 mm (.4 in)  
**20** 20 mm (.8 in)

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](http://www.technoautomation.com)

### SPECIFICATIONS

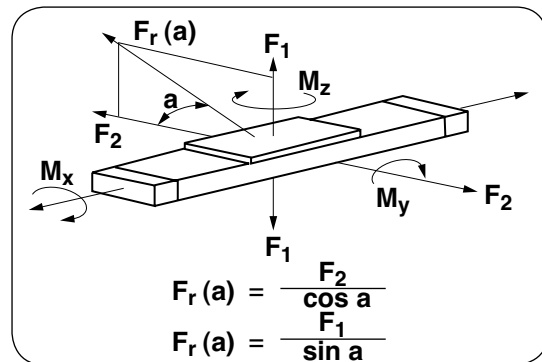
<b>Repeatability</b>	± 0.01 mm (± .0004 in)
<b>Accuracy</b>	± 0.1 mm / 300 mm (± 0.004 in / ft)

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