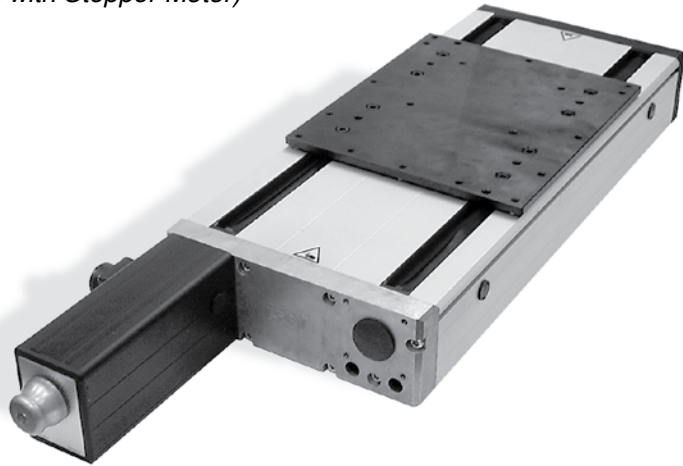


FEATURES:

- Constructed from Series 500 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)
- Four precision steel rails $\text{\O}12\text{h}6$ with four **BEARING CARRIAGE 4 (HL46D0M223007)** steel bearing blocks all hardened to HRC 62 ± 2
- Anti-backlash $\text{\O}16$ mm (.63 in) ball screw drives with pitches of 2.5 (.1), 5 (.2), 10 (.4) and 20 mm (.8 in) available

Carriage Plate Included (Shown with Stepper Motor)



XYZ configurations possible with mounting plates on pages 102 and 103.

HEAVY-DUTY SLIDE SELECTION

CATALOG NUMBER

HL31HDM

Screw Type

- B** Ball Screw
- K** Ball Screw with Side Mount Motor

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

Code

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

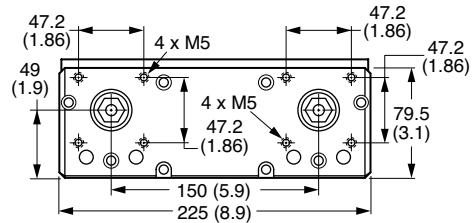
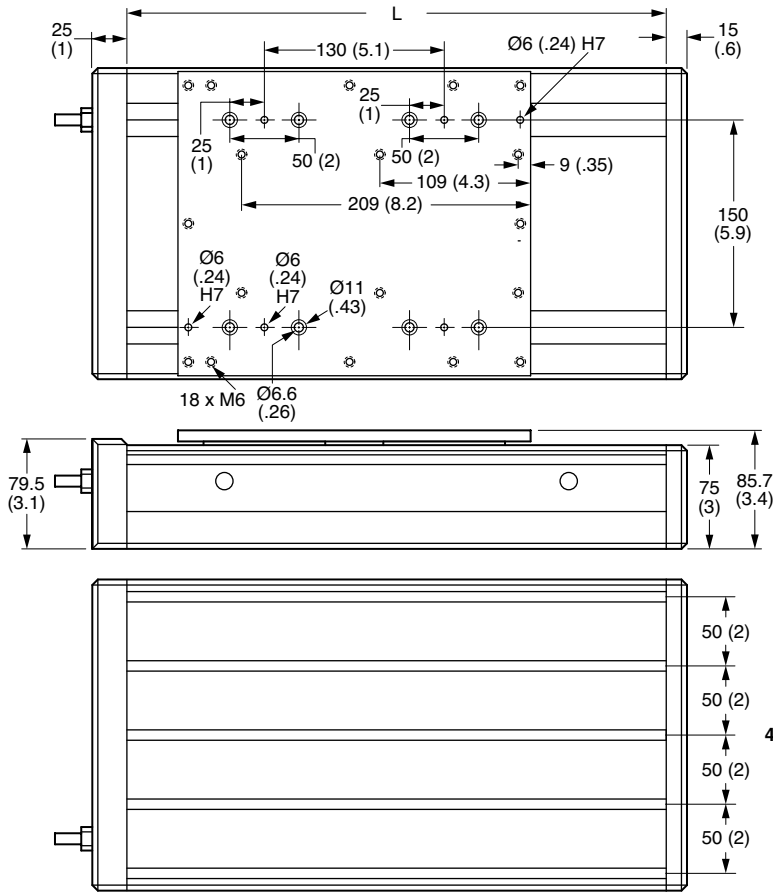
Pitch Code

- Blank for 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 (35.0)	622 (24.5)
0990	990 (39.0)	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 (67.8)
2490	2490 (98.0)	2222 (87.5)
2990	2990 (117.7)	2722 (107.2)

To order a Heavy-Duty Slide 2 with 216W Servomotor (V), 10 mm pitch Ball Screw (B), and 390 mm length, the catalog number is **HL31HDMB039010V**.

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



4 T-SLOTS

See Web site for complete CAD drawings

SPECIFICATIONS

Repeatability	± 0.01 mm (± .0004 in)
Accuracy	± 0.1 mm / 300 mm (± .004 in / 12 in)

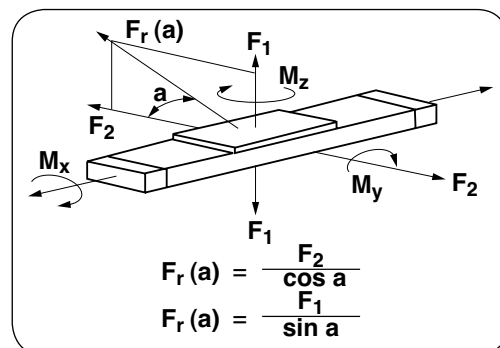
Motor Drive	Ball Screw Pitch mm (in)	Thrust Force @ Low Speeds kg (lb)	No Load Speed mm/sec (In/sec)	Resolution mm (in)
Stepper Motor	2.5 (.1)	182 (400)	64 (2.5)	0.0062 (.0002)
	5 (.2)	91 (200)	127 (5)	0.0125 (.0005)
	10 (.4)	45 (100)	254 (10)	0.0250 (.0098)
	20 (.8)	23 (50)	508 (20)	0.0500 (.0197)
Servomotor	2.5 (.1)	226 (500)	77 (3)	0.0013 (.00005)
	5 (.2)	113 (250)	152 (6)	0.0025 (.0001)
	10 (.4)	57 (125)	305 (12)	0.0050 (.0002)
	20 (.8)	28 (62)	610 (24)	0.0100 (.0004)

Heavy-Duty Slide 2

LOAD and MOMENT DATA

F1 Stat	3200 N (719.4 lb)
F1 Dyn	2000 N (449.6 lb)
F2 Stat	3200 N (719.4 lb)
F2 Dyn	2000 N (449.6 lb)
Mx Stat	147 N·m (1300 lb·in)
My Stat	129.6 N·m (1146 lb·in)
Mz Stat	129.6 N·m (1146 lb·in)
Mx Dyn	89.6 N·m (792 lb·in)
My Dyn	77.6 N·m (686 lb·in)
Mz Dyn	77.6 N·m (686 lb·in)

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



NOTE: Dimensions in () are inch