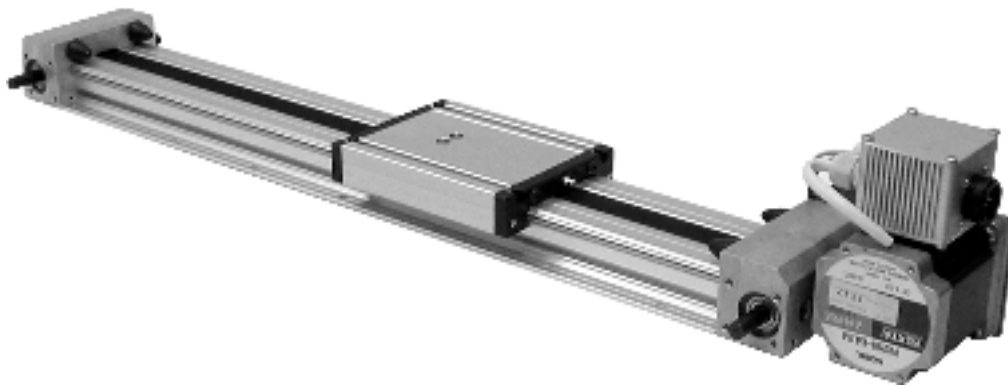
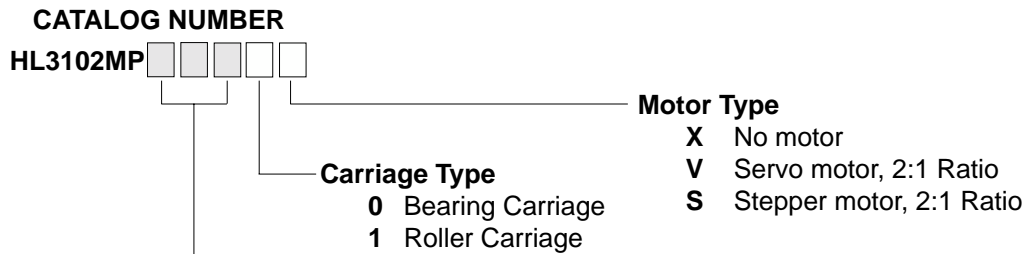


FEATURES

- ◆ Carriage rides on two Ø8 mm precision ground steel shafts that are supported along the entire length of travel to minimize deflection
- ◆ Available with either a 600 N·cm stepper motor, 300W servo motor or no motor
- ◆ Lengths up to 3 meters
- ◆ Maximum speed: 5 m/s
- ◆ Resolution is 0.0875 mm/step in half-step mode and 0.00875 mm/pulse with standard servo motor
- ◆ Belt is 5 mm HTD, 25 mm wide. HTD belt profile helps reduce backlash
- ◆ Home and end reference switch repeatable to < 0.1 mm



2 MACHINES & SLIDES



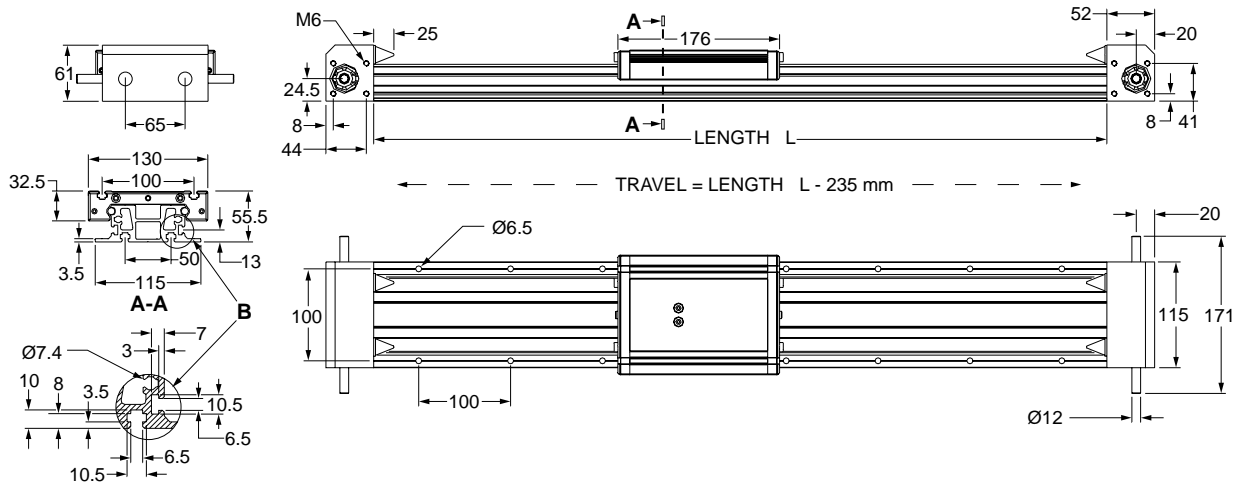
ZF2 BELT DRIVE SELECTION

Code	Length (mm)	Travel (mm)
070	698	463
100	998	763
150	1498	1263
200	1998	1763
250	2498	2263
300	2998	2763

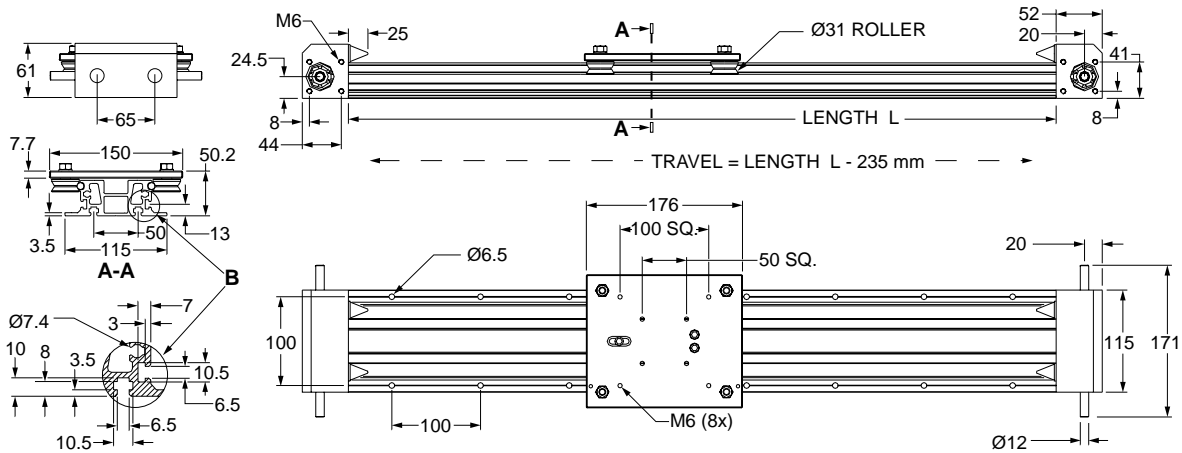
NOTE: All slides provided with a motor come with a 2:1 belt and pulley assembly.

For mating connectors and cables, see page 166. For motor standoffs and couplings, see page 132.

Bearing Carriage



Roller Carriage

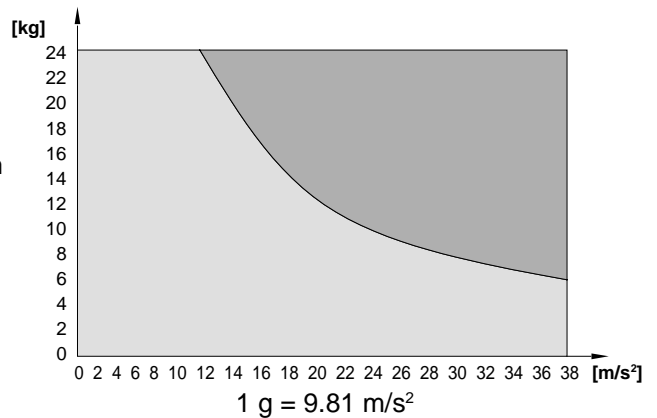


Technical Data

- Belt type: 5 mm HTD, 25 mm wide
 - Mass of Bearing Carriage = 0.940 kg
 - Mass of Roller Carriage = 2.03 kg
 - Weight without motor module: ≈ 7.9 kg/1000 mm
 - Specific mass of belt: 0.09 kg/m
 - Diameter of pulley: 22.28 mm
 - Pulley mass moment of inertia: 5.58×10^{-6} kg·m²
 - Effective circumference: 70 mm
- NOTE:** Two revolutions of the motor shaft produce 70 mm of linear travel. This determines travel resolution.

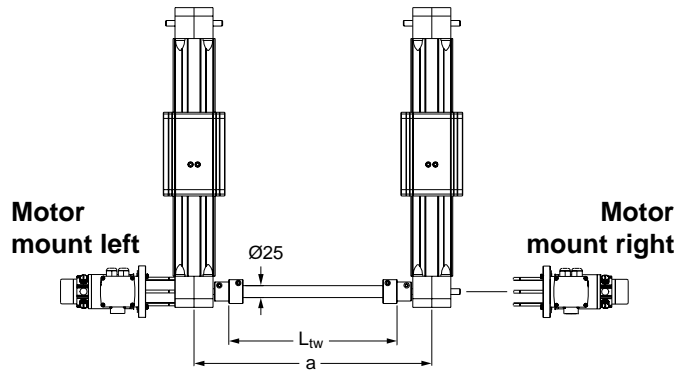
No load speed (rpm)	No load torque (N · m)
500	0.16
1500	0.24
3000	0.36

Maximum Acceleration Based On Belt Specification ZF2



Transmission Bar

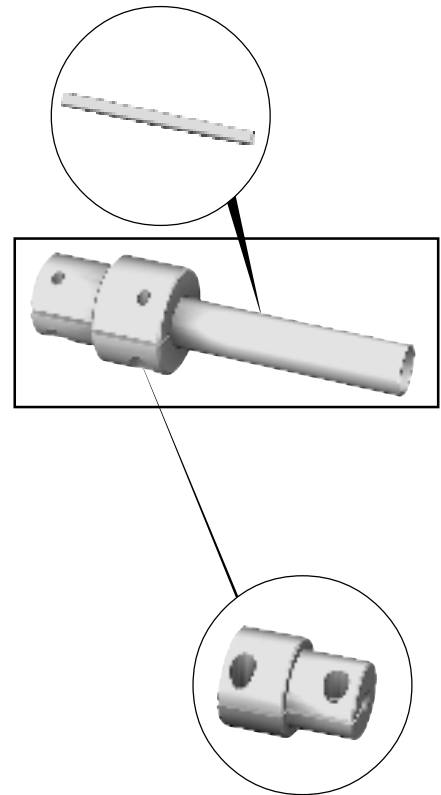
CATALOG NUMBER: HL5500M219001-1 – 1 meter long
HL5500M219001-2 – 2 meters long



$L_{tw} = a - 180 \text{ mm}$

where:

- a = Distance between axes
- L_{tw} = Transmission bar length

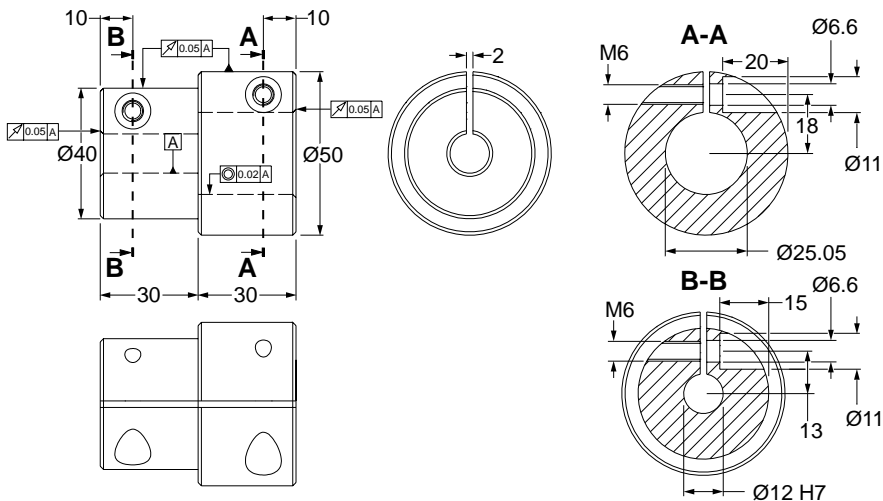


2 MACHINES & SLIDES

Coupling for Transmission Bar

CATALOG NUMBER: HL5500M218050

Coupling for Ø25 mm Transmission Bar
(two are included per set)



Moment of Inertia

For Coupling:

$J_K = 6.643 \cdot 10^{-5} \text{ kg} \cdot \text{m}^2$

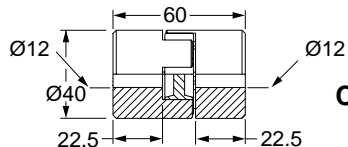
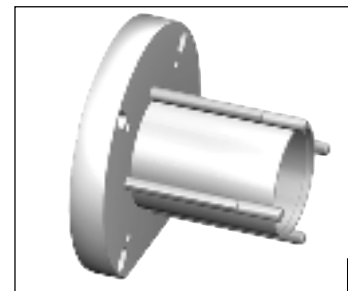
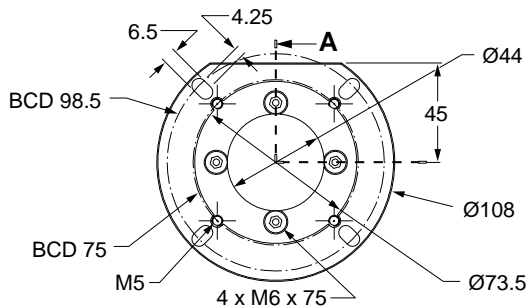
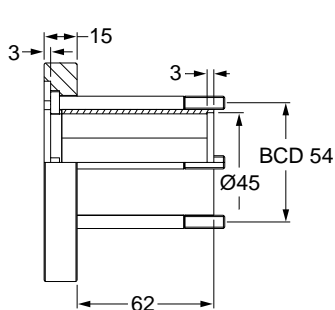
For Transmission Bar:

$J_{TRS} = 5.218 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2 / 100 \text{ mm}$

Motor Stand-Off

CATALOG NUMBER: HL5500M218100

SECTION A



CATALOG NUMBER: HL5500M1214

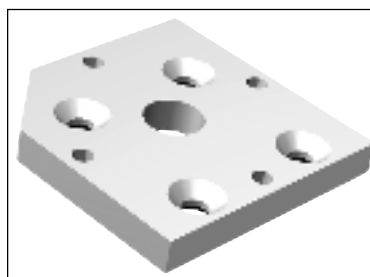
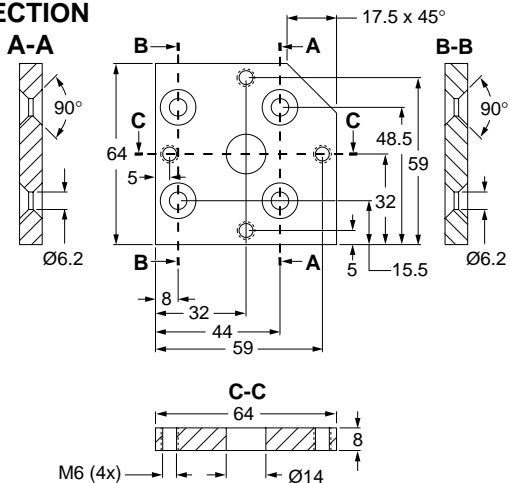
40 x 60 Coupling
not included

BCD: Bolt Circle Diameter

Motor Mount Plate

CATALOG NUMBER: HL4700M232204

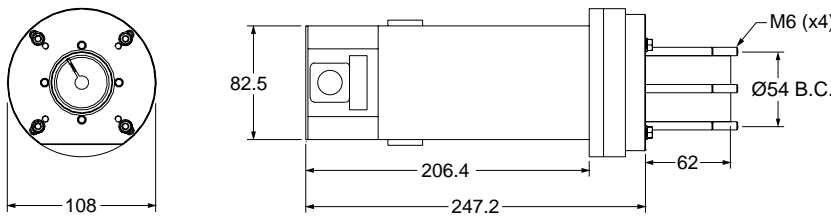
SECTION



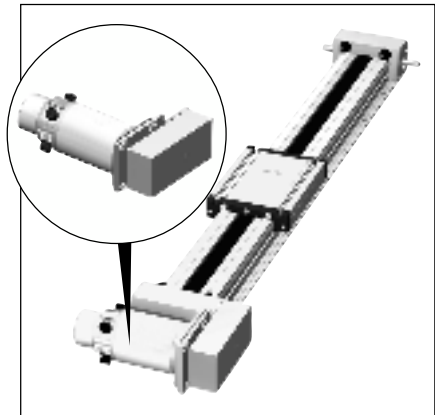
DC Servo Motor

CATALOG NUMBER: HZ2600M396085293

Specifications			
Power	300W	Maximum Terminal Voltage	90V
Maximum Operating Speed	5000 rpm	Peak Stall Torque	825 oz • in
Continuous Stall Torque	165 oz • in	Maximum Pulse Current	38A
Maximum Continuous Current	6.4A	Operating Temperature	0°C to 40°C



(motor module does not include 2:1 pulley module)



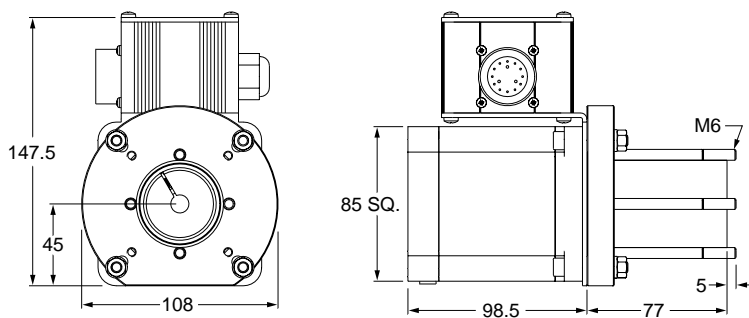
2 MACHINES & SLIDES

Stepper Motor

CATALOG NUMBER: HL2600M396085193 (Right Mount)

HL2600M396085020 (Left Mount)

Specifications			
Holding Torque (bipolar)	600 N • cm	Resistance	0.66 Ω
Steps Full	1.8°	Inductance	2.5mH
Steps Half	0.9°	Current (bipolar)	5.9A
Voltage (bipolar)	2.8V		



(motor module does not include 2:1 pulley module)

