

EO5 Belt Drive Slide

FEATURES

- ◆ Carriage rides on two Ø8 mm precision ground steel shafts that are supported along the entire length of travel to minimize deflection
- ◆ Lengths up to 3 meters
- ◆ Resolution is 0.175 mm/step in half-step mode and 0.0175 mm/pulse with standard Servo motor
- ◆ Available with either a 600 N·cm stepper motor, 300W servo motor or no motor
- ◆ Maximum speed: 5 m/s
- ◆ Belt is 5 mm HTD, 25 mm wide. HTD belt profile helps reduce backlash
- ◆ Home and end reference switch repeatable to < 0.1 mm



CATALOG NUMBER

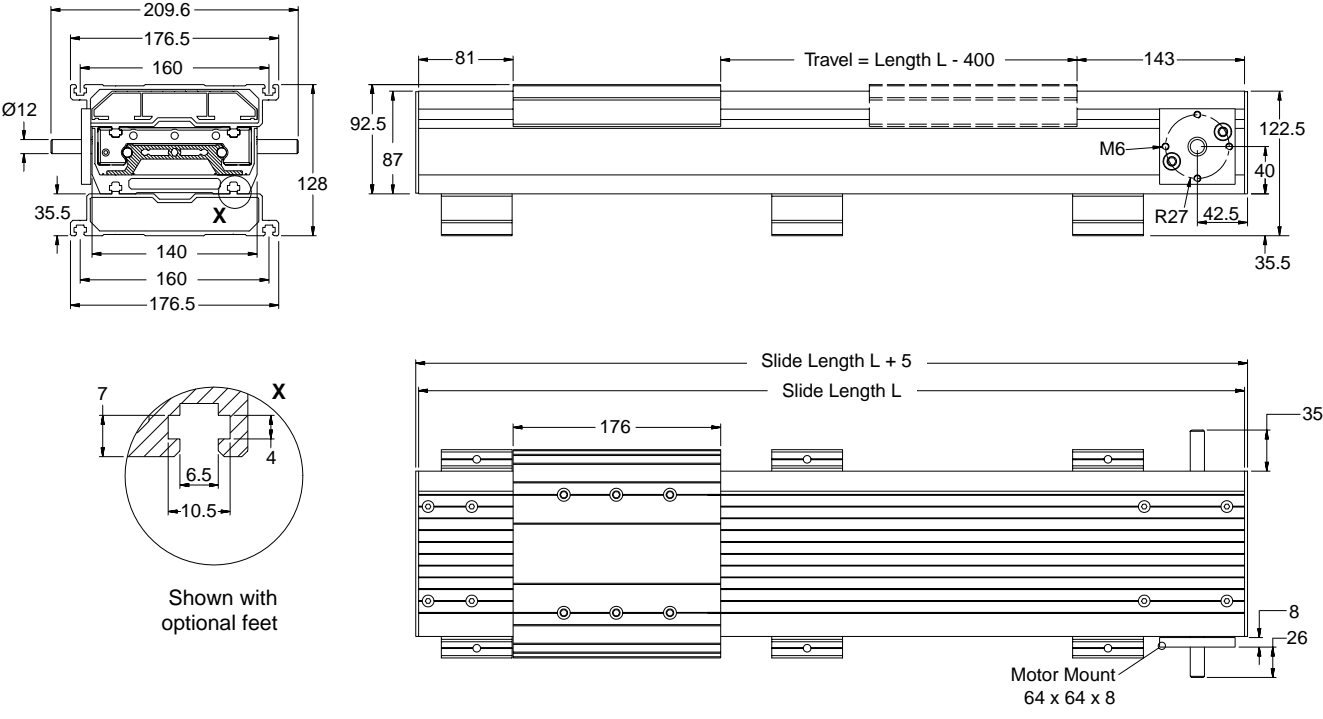
KO5325PS

- Motor Type**
- A No motor
 - Y Servo motor
 - V Stepper motor
- Motor Mounting**
- 2 Right-hand side
 - 3 Left-hand side

EO5 BELT DRIVE SELECTION

Code	Length (mm)	Travel (mm)
202	800	400
332	1100	700
342	1200	800
382	1600	1200
432	2100	1700
482	2600	2200
412	2900	2500
522	3000	2600

EO5 Belt Drive Slide

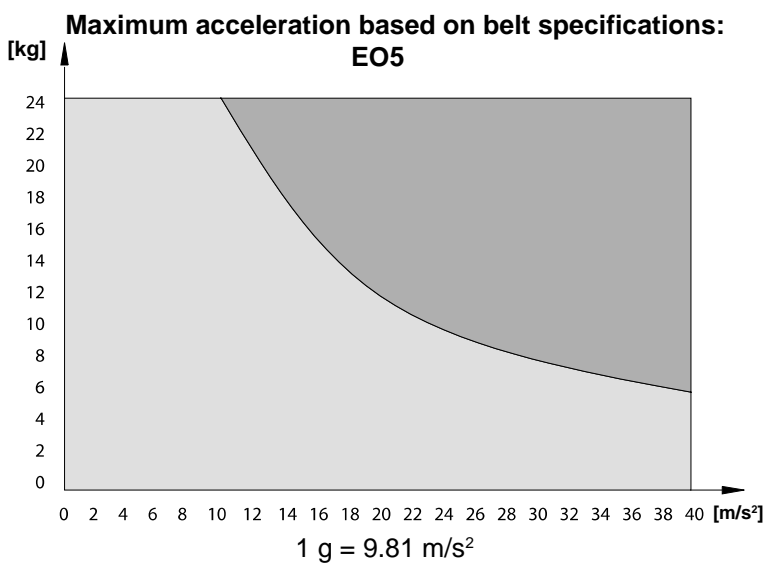


Technical Data

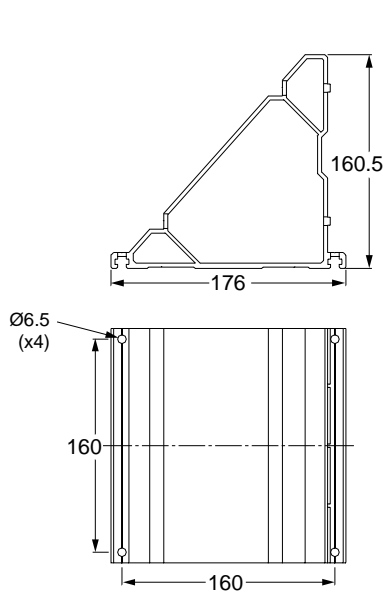
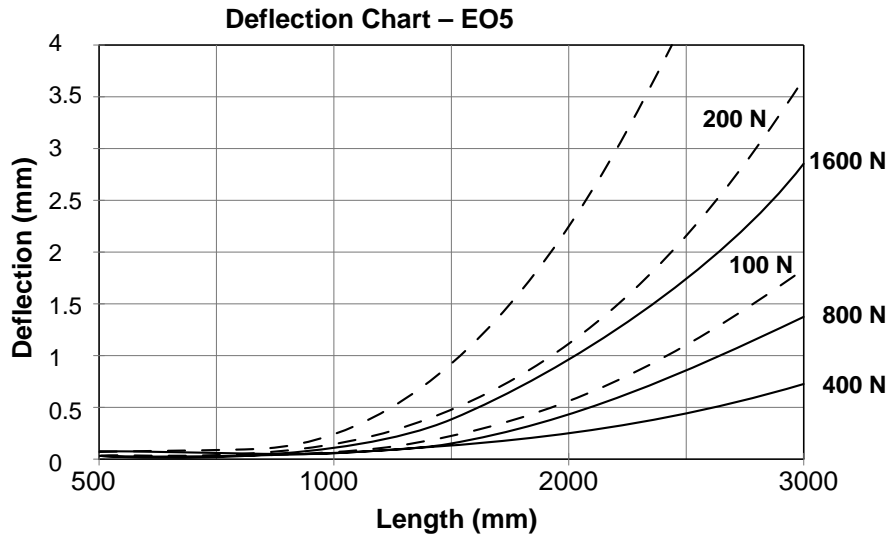
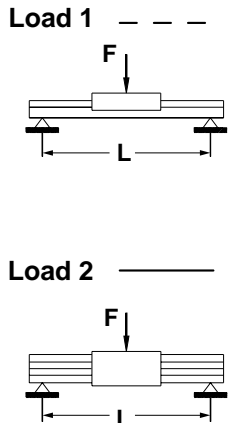
- Belt type: 5 mm HTD, 25 mm wide
- Mass of carriage: 1.530 kg
- Weight without motor module: ≈ 12 kg/1000 mm
- Specific mass of belt: 0.09 kg/m
- Diameter of pulley: 22.28 mm
- Pulley mass moment of inertia: $8.542 \times 10^{-5} \text{ kg}\cdot\text{m}^2$
- Effective circumference: 70 mm

NOTE: One revolution of motor shaft produces 70 mm of linear travel. This determines travel resolution.

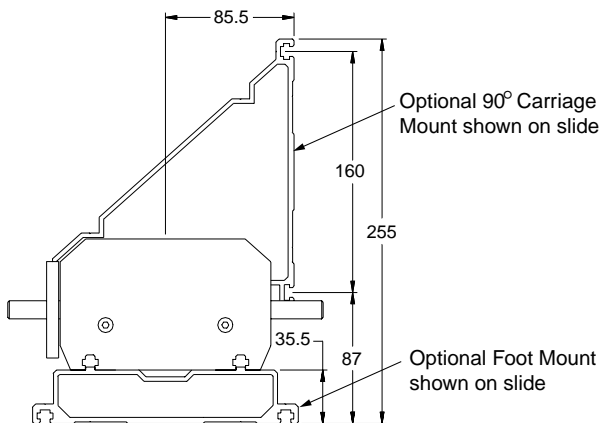
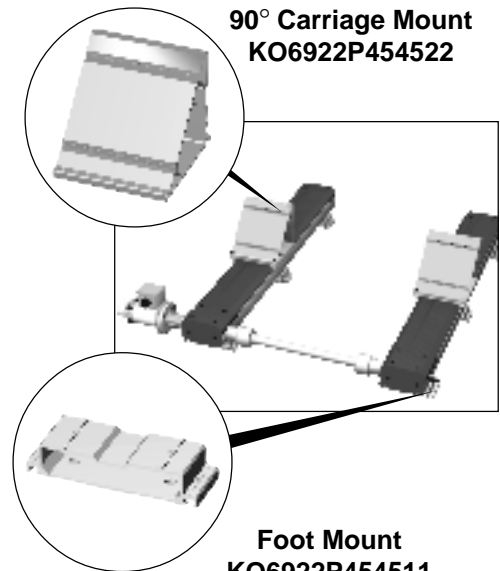
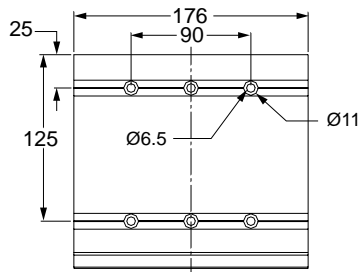
No load speed (rpm)	No load torque (N · m)
500	0.16
1500	0.24
3000	0.36



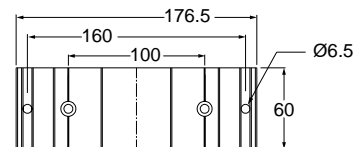
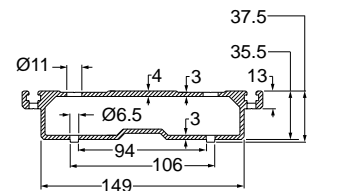
EO5 Foot Mount & 90° Carriage Mount



90° Carriage Mount

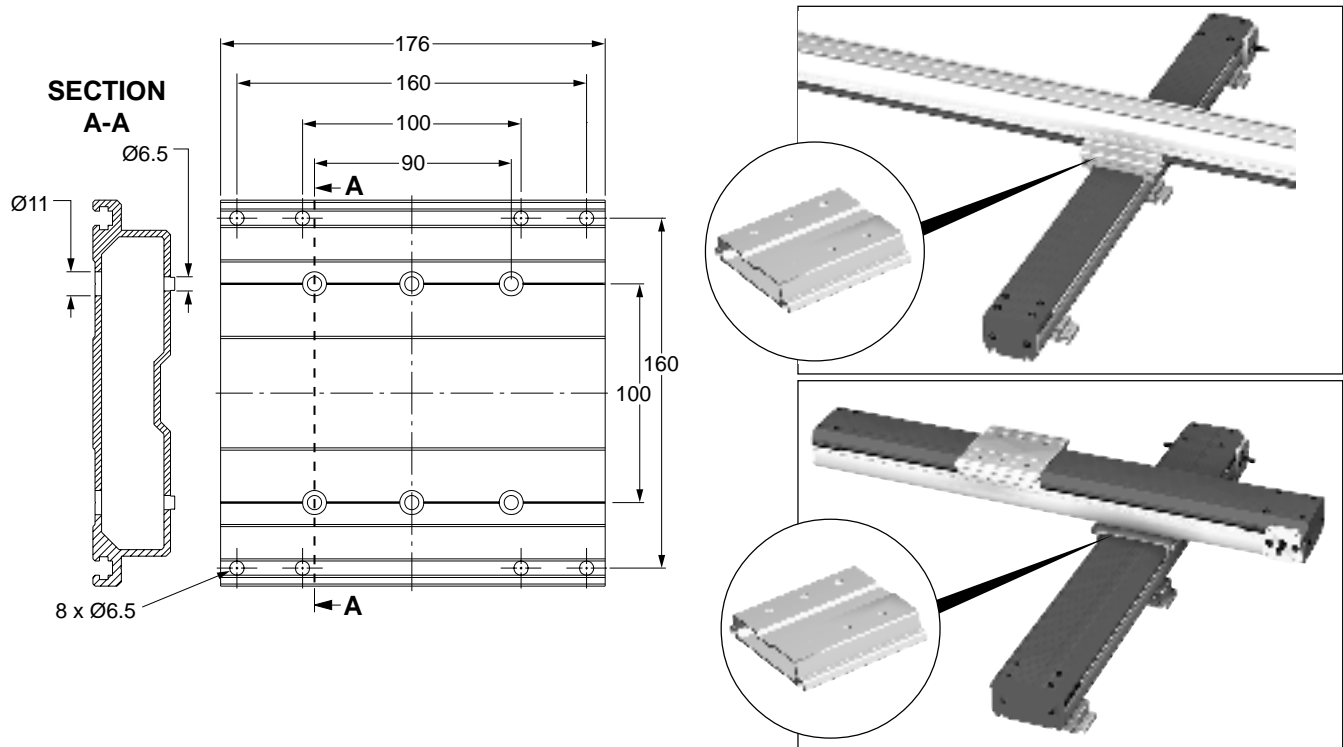


Assembly End View



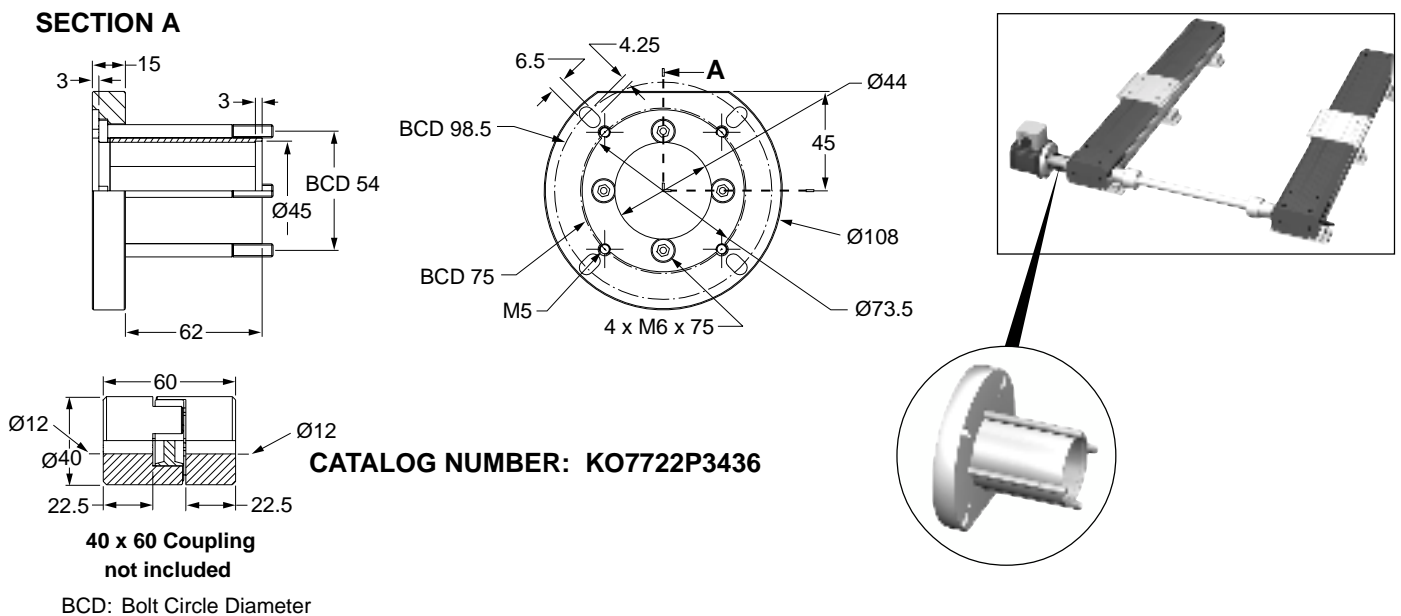
Foot Mount

Carriage Plate



Motor Stand-Off

CATALOG NUMBER: KO7722P430322

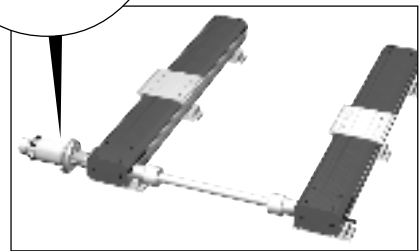
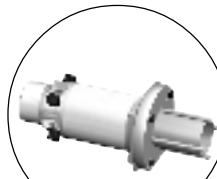
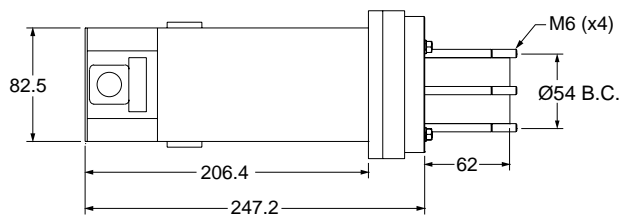
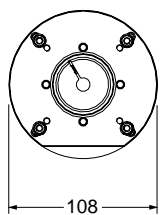


EO3 Motor Assembly Information

DC Servo Motor

CATALOG NUMBER: KC4822P518207415

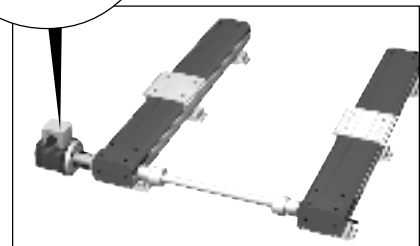
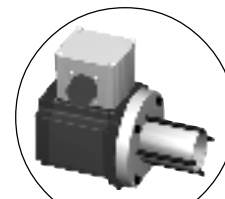
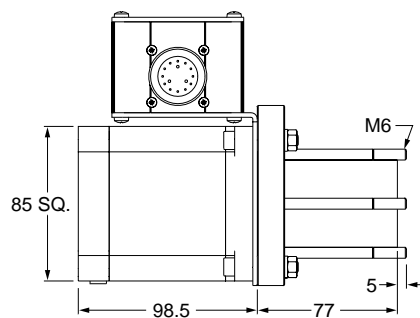
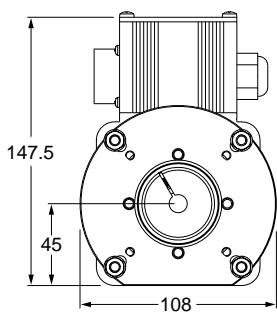
Specifications	
Power	300W
Maximum Operating Speed	5000 rpm
Continuous Stall Torque	165 oz•in
Maximum Continuous Current	6.4A
Maximum Terminal Voltage	90V
Peak Stall Torque	825 oz•in
Maximum Pulse Current	38A
Operating Temperature	0°C to 40°C



Stepper Motor

CATALOG NUMBER: KO4822P518207315 (Right Mount)
KO4822P518207242 (Left Mount)

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



Belt Slide Actuator Specifications

Load and Moment Data (reference diagram below)

Model	EO3	EO5	Ci3 bearing carriage	Ci4 bearing carriage	Ci5 bearing carriage	QS4 slide
Co [N]	3061.5	4701.7	3061.5	4701.7	4701.7	1270.0
C [N]	1598.1	2127.7	1598.1	2127.7	2127.7	750.0
F1 stat [N]	2648.0	4060.0	2648.0	4060.0	4060.0	1270.0
F1 dyn [N]	1382.7	1840.3	1382.7	1840.3	1840.3	750.0
F2 stat [N]	3061.5	4701.7	3061.5	4701.7	4701.7	1270.0
F2 dyn [N]	1598.1	2127.7	1598.1	2127.7	2127.7	750.0
Mx stat [Nm]	37.2	175.0	37.2	175.0	175.0	22.0
My stat [Nm]	98.8	151.8	98.8	151.8	151.8	12.6
Mz stat [Nm]	114.3	175.5	114.3	175.5	175.5	12.6
Mx dyn [Nm]	19.4	79.2	19.4	79.2	79.2	13.5
My dyn [Nm]	51.6	68.7	51.6	68.7	68.7	7.5
Mz dyn [Nm]	59.7	79.4	59.7	79.4	79.4	7.5

