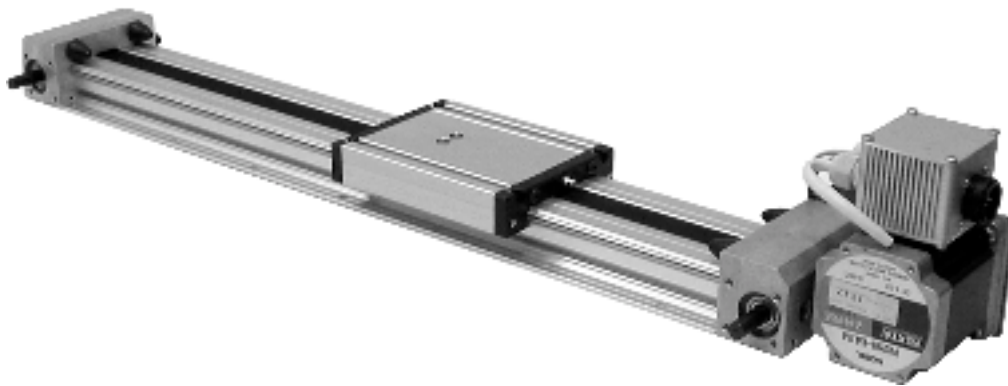


# Ci4 Belt Drive Slide

## 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 0.0875 mm/step in half-step mode and 0.00875 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

KO5324PS



#### Carriage Type

2 Bearing Carriage

#### Motor Type

A No motor  
Y Servo motor, 2:1 Ratio  
V Stepper motor, 2:1 Ratio

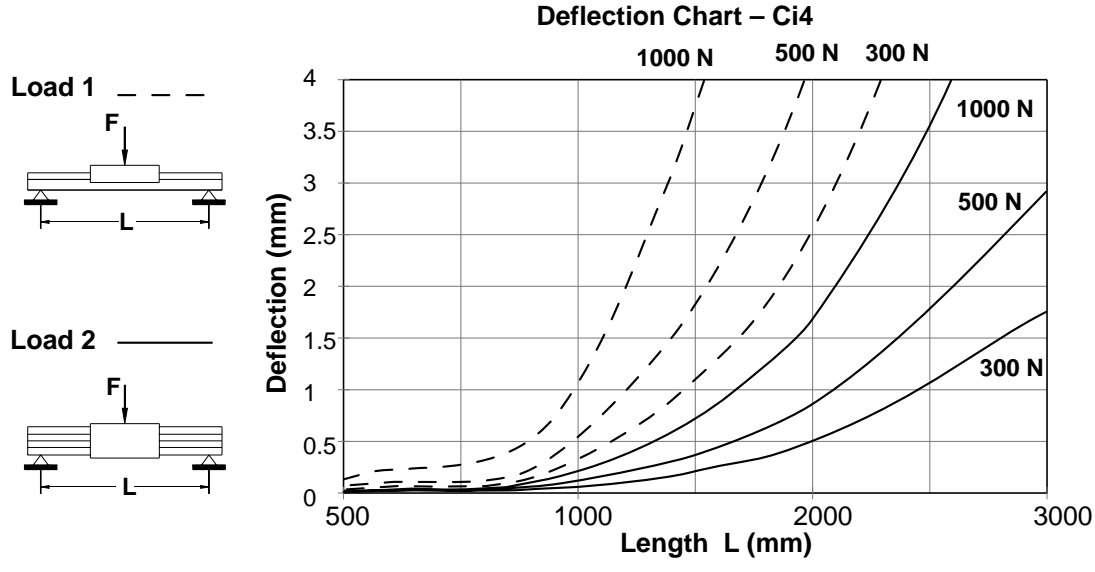
### Ci4 BELT DRIVE SELECTION

Code	Length (mm)	Travel (mm)
292	698	463
322	998	763
372	1498	1263
422	1998	1763
472	2498	2263
522	2998	2763

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

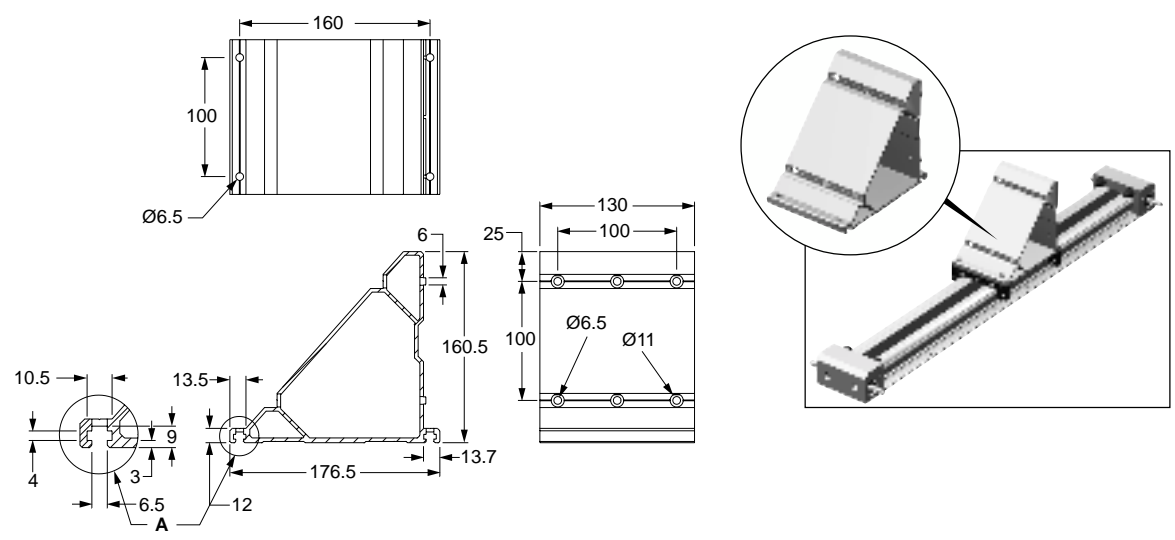


# Ci4 Deflection Data & 90° Carriage Mount



## 90° Carriage Mount

CATALOG NUMBER: KO6922P454422

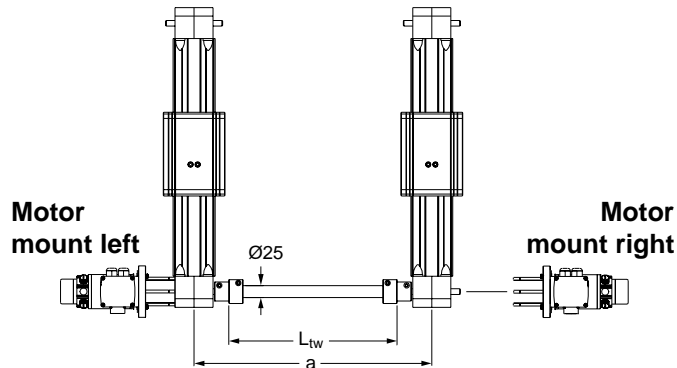


# Ci4 Transmission Bar & Coupling

## Transmission Bar

CATALOG NUMBER: KO7722P431223-3 – 1 meter long

KO7722P431223-4 – 2 meters long

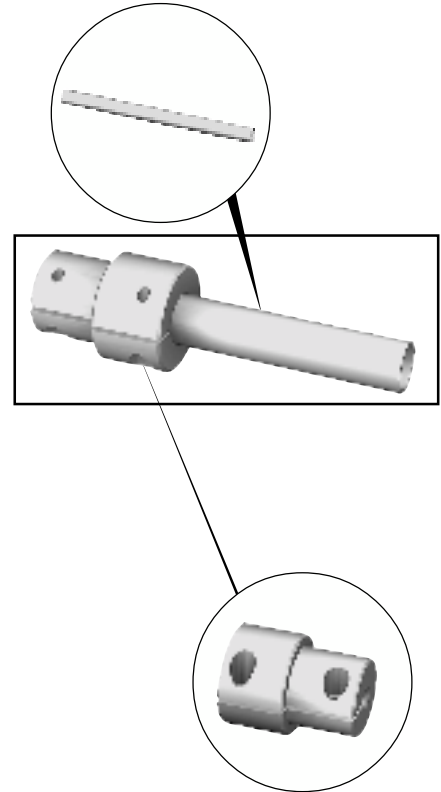


$$L_{tw} = a - 180 \text{ mm}$$

where:

$a$  = Distance between axes

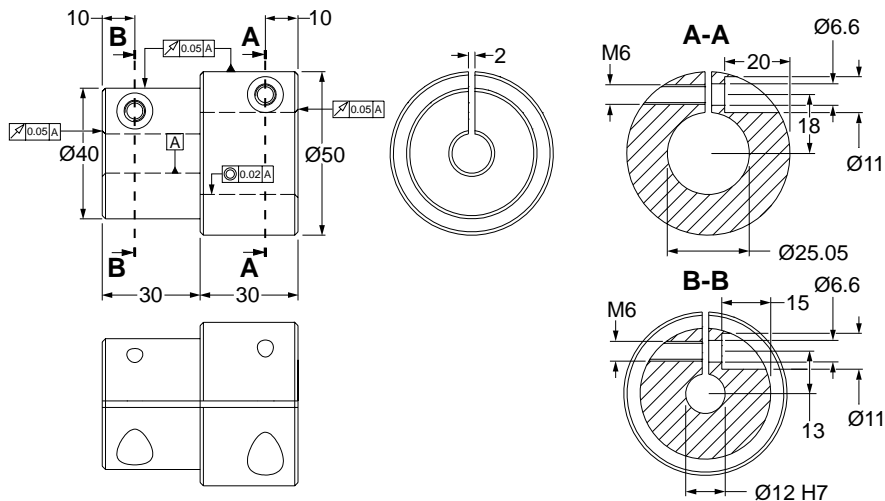
$L_{tw}$  = Transmission bar length



## Coupling for Transmission Bar

CATALOG NUMBER: KO7722P430272

Coupling for  $\varnothing 25$  mm Transmission Bar  
(two are included per set)



Moment of Inertia

**For Coupling:**

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

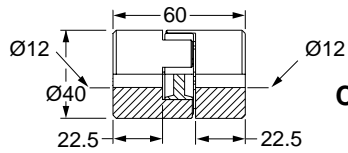
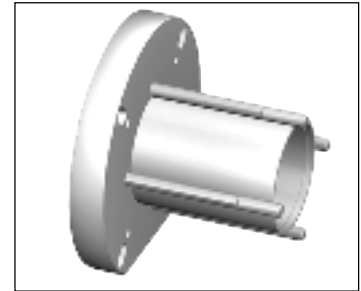
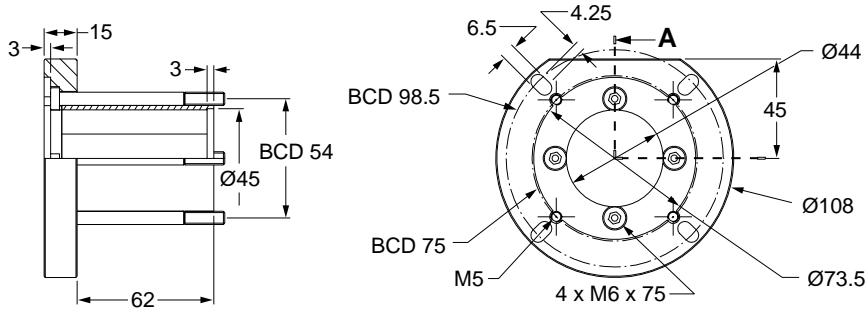
**For Transmission Bar:**

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

Motor Stand-Off

CATALOG NUMBER: KO7722P430322

SECTION A



CATALOG NUMBER: KO7722P3436

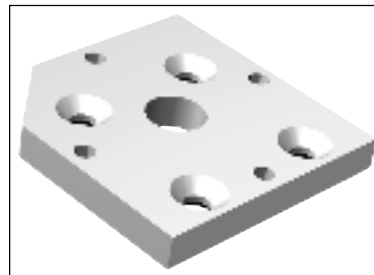
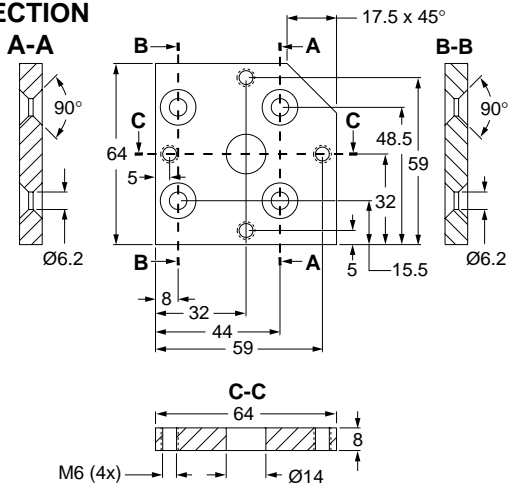
40 x 60 Coupling  
 not included

BCD: Bolt Circle Diameter

Motor Mount Plate

CATALOG NUMBER: KO6922P454426

SECTION

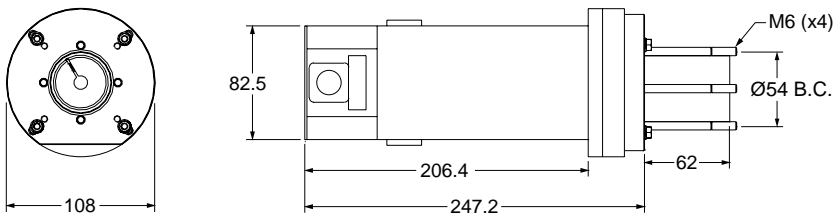


# Ci4 Motor Assembly Information

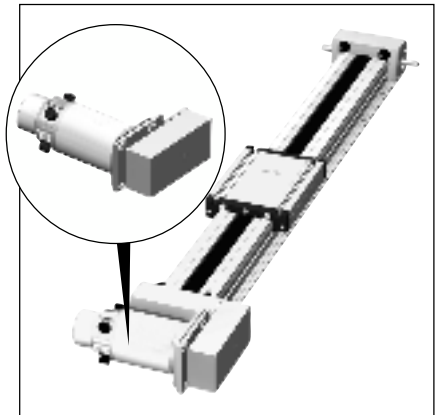
## DC Servo Motor

CATALOG NUMBER: KC4822P518207415

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



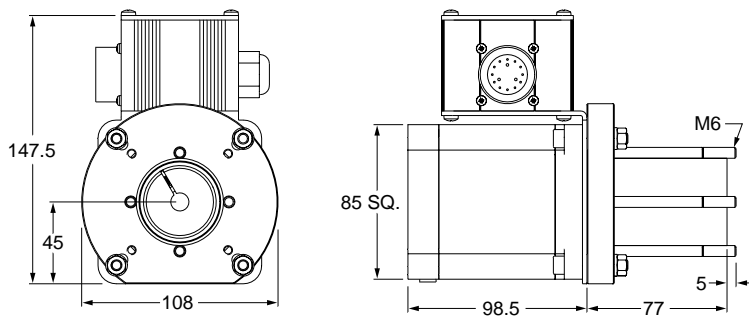
*(motor module does not include 2:1 pulley module)*



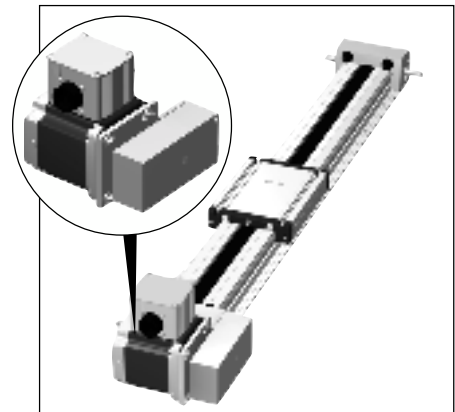
## Stepper Motor

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



## 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
<b>Co</b> [N]	3061.5	4701.7	3061.5		4701.7		4701.7		1270.0
<b>C</b> [N]	1598.1	2127.7	1598.1		2127.7		2127.7		750.0
<b>F1</b> stat [N]	2648.0	4060.0	2648.0		4060.0		4060.0		1270.0
<b>F1</b> dyn [N]	1382.7	1840.3	1382.7		1840.3		1840.3		750.0
<b>F2</b> stat [N]	3061.5	4701.7	3061.5		4701.7		4701.7		1270.0
<b>F2</b> dyn [N]	1598.1	2127.7	1598.1		2127.7		2127.7		750.0
<b>Mx</b> stat [Nm]	37.2	175.0	37.2		175.0		175.0		22.0
<b>My</b> stat [Nm]	98.8	151.8	98.8		151.8		151.8		12.6
<b>Mz</b> stat [Nm]	114.3	175.5	114.3		175.5		175.5		12.6
<b>Mx</b> dyn [Nm]	19.4	79.2	19.4		79.2		79.2		13.5
<b>My</b> dyn [Nm]	51.6	68.7	51.6		68.7		68.7		7.5
<b>Mz</b> dyn [Nm]	59.7	79.4	59.7		79.4		79.4		7.5

