



# E6 Hinge

Position control · Constant torque

- Holds in every position
- No adjustment required
- Long cycle life

### Material and Finish

Large: Zinc alloy, black paint  
 Medium: Aluminum alloy, black paint

### Performance Details

Cycle performance: 20,000 cycles within  $\pm 20\%$  of static torque specification

#### Radial load:

Large:

Maximum static load: 200 N (45 lbf)  
 Average ultimate load: 11000 N (2470 lbf)

Medium:

Maximum static load: 155 N (35 lbf)  
 Average ultimate load: 3000 N (675 lbf)

#### Axial load:

Large:

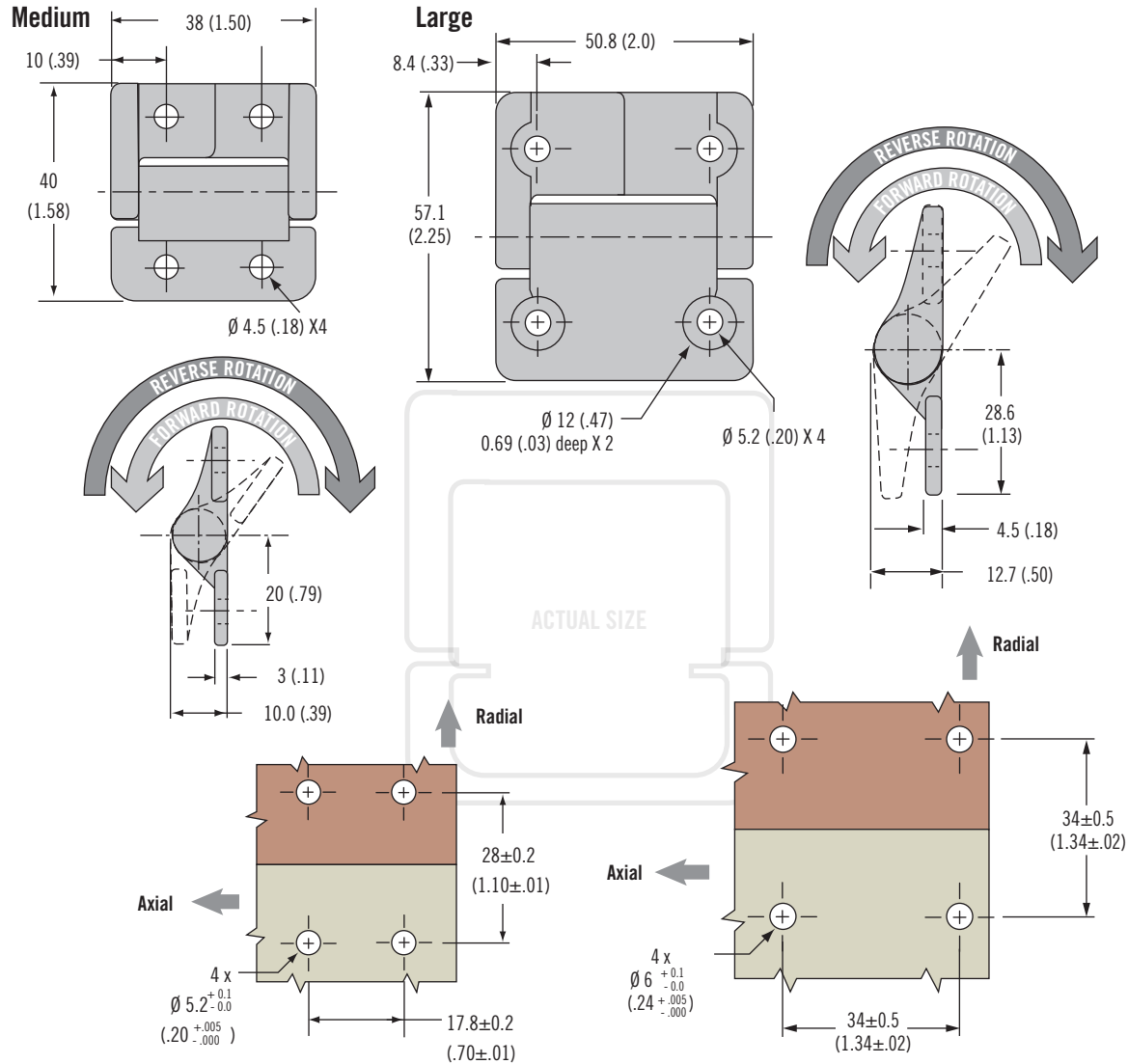
Maximum static load: 200 N (45 lbf)  
 Average ultimate load: 2800 N (630 lbf)

Medium:

Maximum static load: 155 N (35 lbf)  
 Average ultimate load: 1600 N (360 lbf)

### Part Number

See table



### Symmetric

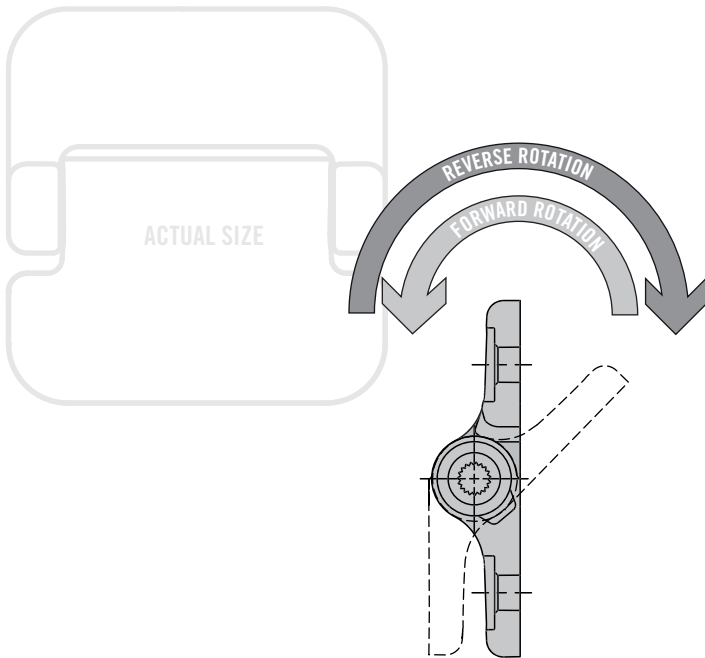
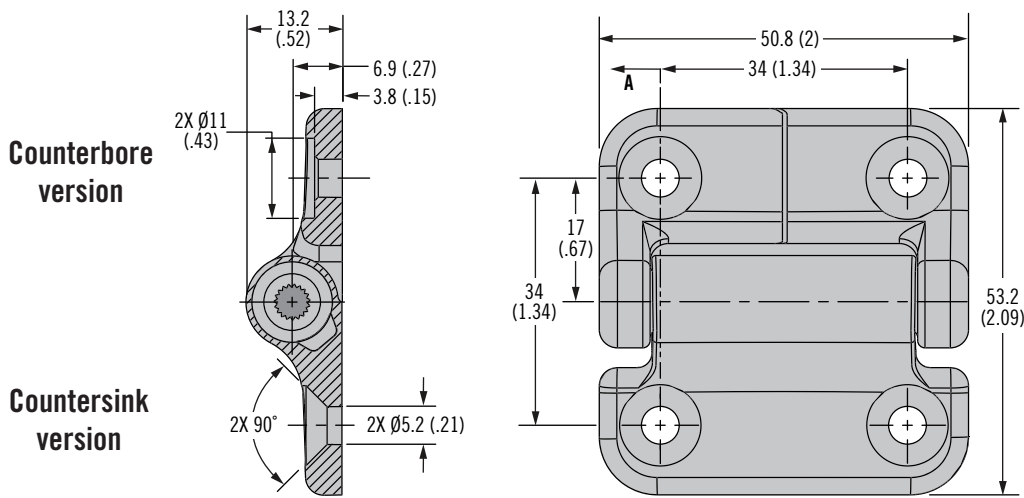
	Part Number	Symmetric Torque N·m
Medium	E6-10-200-50	Free operating
	E6-10-208-50	0.9 (8)
	E6-10-212-50	1.4 (12)
	E6-10-216-50	1.8 (16)
	E6-10-220-50	2.3 (20)
Large	E6-10-400-50	Free operating
	E6-10-416-50	1.8 (16)
	E6-10-420-50	2.3 (20)
	E6-10-430-50	3.4 (30)

### Asymmetric

	Part Number	Forward Torque N·m	Reverse torque N·m	
Medium	E6-10-212F-50	1.4 (12)	0.8 (7.2)	
	E6-10-216F-50	1.8 (16)	1.1 (9.6)	
	E6-10-220F-50	2.3 (20)	1.4 (12)	
	E6-10-224F-50	2.7 (24)	1.6 (14.4)	
	E6-10-212R-50	0.8 (7.2)	1.4 (12)	
	E6-10-216R-50	1.1 (9.6)	1.8 (16)	
	E6-10-220R-50	1.4 (12)	2.3 (20)	
	E6-10-224R-50	1.6 (14.4)	2.7 (24)	
	Large	E6-10-420F-50	2.3 (20)	1.4 (12)
		E6-10-430F-50	3.4 (30)	2.0 (18)
E6-10-440F-50		4.5 (40)	2.7 (24)	
E6-10-420R-50		1.4 (12)	2.3 (20)	
E6-10-430R-50		2.0 (18)	3.4 (30)	
E6-10-440R-50		2.7 (24)	4.5 (40)	

# E6 Hinge

Position control · Constant torque



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### Material and Finish

Stainless steel  
Internal steel and plastic components

### Performance Details

Cycle performance: 20,000 cycles within  $\pm 20\%$  of static torque specification

Radial load:

Maximum static load: 200 N (45 lbf)

Average ultimate load:

13 kN (2,900 lbf)

Axial load:

Maximum static load: 200 N (45 lbf)

Average ultimate load:

4 kN (900 lbf)

XX	Finish
24	Natural
85	High Gloss

Counterbore Part Number	Countersink Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-70-408S-XX	E6-71-408S-XX	0.90 (8.0)	
E6-70-416S-XX	E6-71-416S-XX	1.81 (16.0)	
E6-70-420S-XX	E6-71-420S-XX	2.26 (20.0)	
E6-70-430S-XX	E6-71-430S-XX	3.39 (30.0)	
E6-70-420F-XX	E6-71-420F-XX	2.26 (20.0)	1.54 (13.6)
E6-70-430F-XX	E6-71-430F-XX	3.39 (30.0)	2.30 (20.4)
E6-70-440F-XX	E6-71-440F-XX	4.52 (40.0)	3.08 (27.3)
E6-70-420R-XX	E6-71-420R-XX	1.54 (13.6)	2.26 (20.0)
E6-70-430R-XX	E6-71-430R-XX	2.30 (20.4)	3.39 (30.0)
E6-70-440R-XX	E6-71-440R-XX	3.08 (27.3)	4.52 (40.0)

### Part Number

See table



# E6 Hinge

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### Material and Finish

Zinc alloy body with hardened steel internal components

### Performance Details

20,000 cycles within ±20% of static torque specification

### Installation Notes

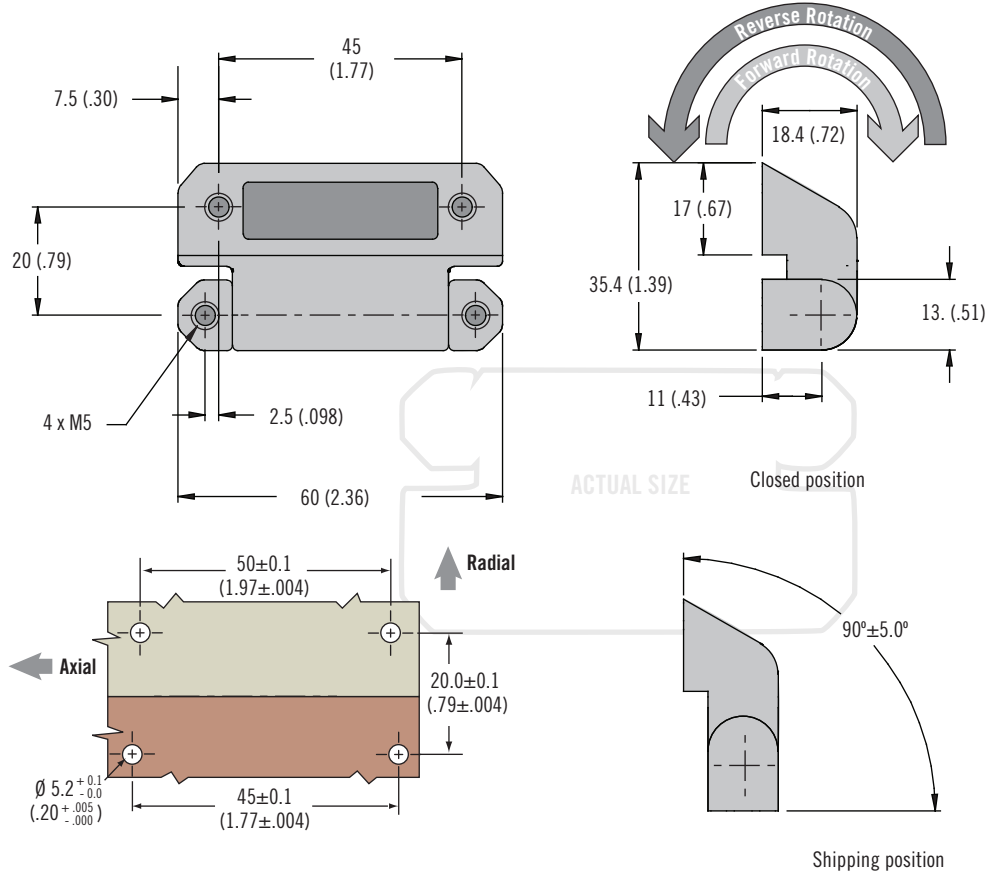
Screws not supplied

Calculate screw length using the following formula:

Door thickness + 6 (.236)

### Part Number

See table



### Symmetric

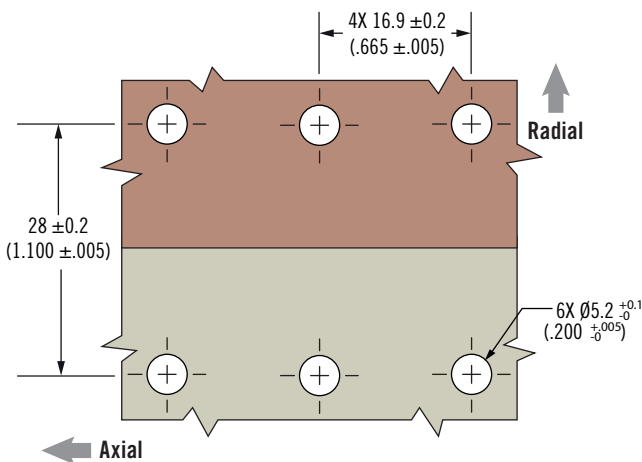
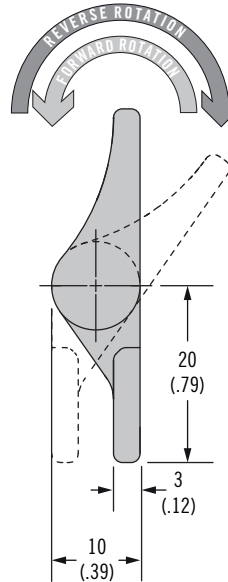
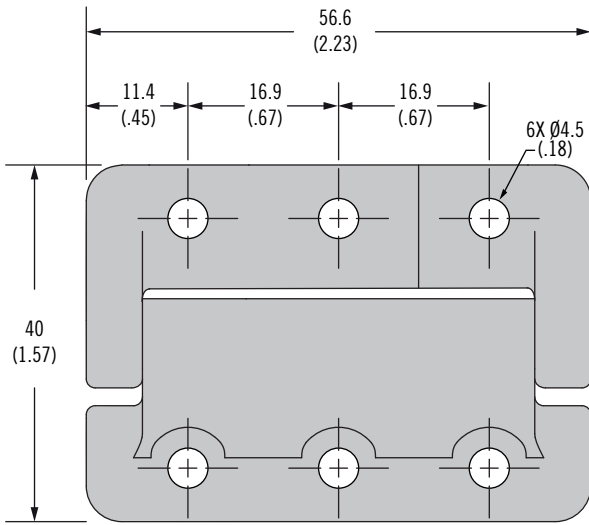
Part Number		Symmetric Torque N·m (in·lbf)
Black	Satin Chrome	
E6-60-400-50	E6-60-400-20	Free operating
E6-60-412S-50	E6-60-412S-20	1.36 N·m (12 in·lbf)
E6-60-420S-50	E6-60-420S-20	2.26 N·m (20 in·lbf)
E6-60-428S-50	E6-60-428S-20	3.16 N·m (28 in·lbf)
E6-60-436S-50	E6-60-436S-20	4.07 N·m (36 in·lbf)

### Asymmetric

Part Number		Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
Black	Satin Chrome		
E6-60-420F-50	E6-60-420F-20	2.3 (20)	1.4 (12)
E6-60-428F-50	E6-60-428F-20	3.2 (28)	1.9 (16.8)
E6-60-436F-50	E6-60-436F-20	4.1 (36)	2.4 (21.6)
E6-60-444F-50	E6-60-444F-20	5 (44)	3 (26.4)
E6-60-420R-50	E6-60-420R-20	1.4 (12)	2.3 (20)
E6-60-428R-50	E6-60-428R-20	1.9 (16.8)	3.2 (28)
E6-60-436R-50	E6-60-436R-20	2.4 (21.6)	4.1 (36)
E6-60-444R-50	E6-60-444R-20	3 (26.4)	5 (44)

# E6 Hinge

Position Control · Constant Torque



- Holds in every position
- No adjustment required
- Long cycle life



### Material and Finish

Aluminum alloy, black powder coat

### Performance Details

Cycle performance  
20,000 Cycles, see product drawing for details

Radial load:

Max. static load: 200 N (45 lbf)

Average ultimate load:

2200 N (500 lbf)

Axial load:

Max. static load: 200 N (45 lbf)

Average ultimate load:

1450 N (325 lbf)

### Part Number

See table

### Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
E6-10E-200-50	Free operating
E6-10E-208-50	0.9 (8)
E6-10E-212-50	1.4 (12)
E6-10E-216-50	1.8 (16)
E6-10E-220-50	2.3 (20)
E6-10E-224-50	2.7(24)
E6-10E-230-50	3.4 (30)

### Asymmetric

Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10E-212F-50	1.4 (12)	0.8 (7.2)
E6-10E-216F-50	1.8 (16)	1.1 (9.6)
E6-10E-220F-50	2.3 (20)	1.4 (12)
E6-10E-224F-50	2.7 (24)	1.6 (14)
E6-10E-230F-50	3.4 (30)	2.0 (18)
E6-10E-240F-50	4.5 (40)	2.7 (24)
E6-10E-212R-50	0.8 (7.2)	1.4 (12)
E6-10E-216R-50	1.1 (9.6)	1.8 (16)
E6-10E-220R-50	1.4 (12)	2.3 (20)
E6-10E-224R-50	1.6 (14)	2.7 (24)
E6-10E-230R-50	2.0 (18)	3.4 (30)
E6-10E-240R-50	2.7 (24)	4.5 (40)



## E6 Hinge

Position control · Constant torque

- Holds in every position
- No adjustment required
- Long cycle life

### Material and Finish

Aluminum alloy, black powder coated

### Performance Details

Cycle performance: 20,000 cycles within  $\pm 20\%$  of static torque specification

Radial load:

Max. static load: 2,000 N (450 lbf)

Average ultimate load:

4000N (900lbf)

Axial load:

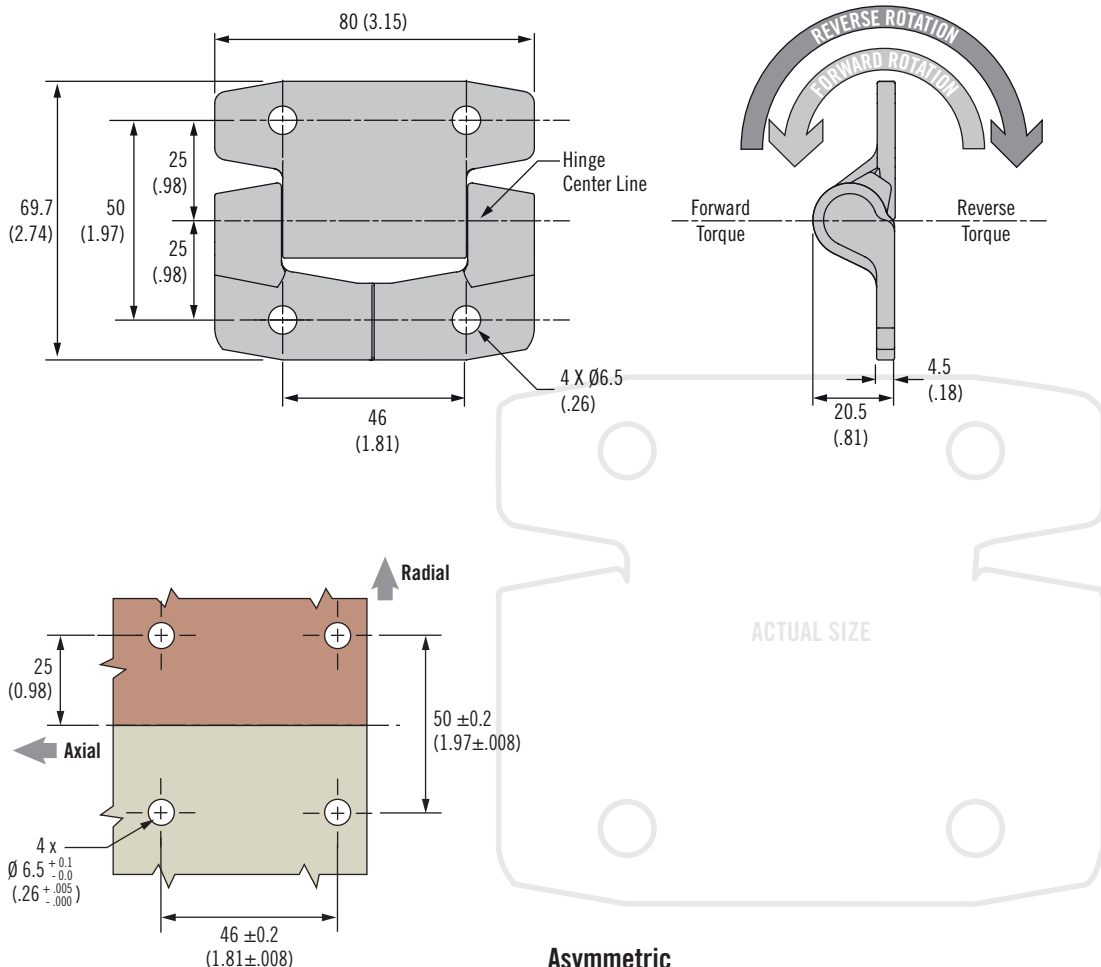
Max. static load: 500 N (110 lbf)

Average ultimate load:

9,000 N (2,023 lbf)

### Part Number

See table



### Asymmetric

Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10-620F-50	2.3 (20.0)	1.7 (14.9)
E6-10-635F-50	3.9 (35.0)	3.0 (26.7)
E6-10-650F-50	5.7 (50.0)	4.0 (35.7)
E6-10-665F-50	7.3 (65.0)	5.4 (47.5)
E6-10-680F-50	9.0 (80.0)	6.7 (59.4)
E6-10-695F-50	10.7 (95.0)	7.8 (68.9)
E6-10-6110F-50	12.4 (110.0)	9.0 (79.8)
E6-10-620R-50	1.7 (14.9)	2.3 (20.0)
E6-10-635R-50	3.0 (26.7)	3.9 (35.0)
E6-10-650R-50	4.0 (35.7)	5.7 (50.0)
E6-10-665R-50	5.4 (47.5)	7.3 (65.0)
E6-10-680R-50	6.7 (59.4)	9.0 (80.0)
E6-10-695R-50	7.8 (68.9)	10.7 (95.0)
E6-10-6110R-50	9.0 (79.8)	12.4 (110.0)

### Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
E6-10-620S-50	2.3 (20.0)
E6-10-635S-50	3.9 (35.0)
E6-10-650S-50	5.7 (50.0)
E6-10-665S-50	7.3 (65.0)
E6-10-680S-50	9.0 (80.0)

# E6 Hinge

Position Control · Constant Torque · One Way



- Holds in every position
- No adjustment required
- Long cycle life
- Minimal resistance in free direction



### Material and Finish

Aluminum alloy, black powder coated

### Performance Details

Cycle performance: 20,000 Cycles, see trade drawing for details

Radial load:

Max. static load: 2000 N (450 lbf)

Average ultimate load: 3500 N (780 lbf)

Axial load:

Max. static load: 500 N (110 lbf)

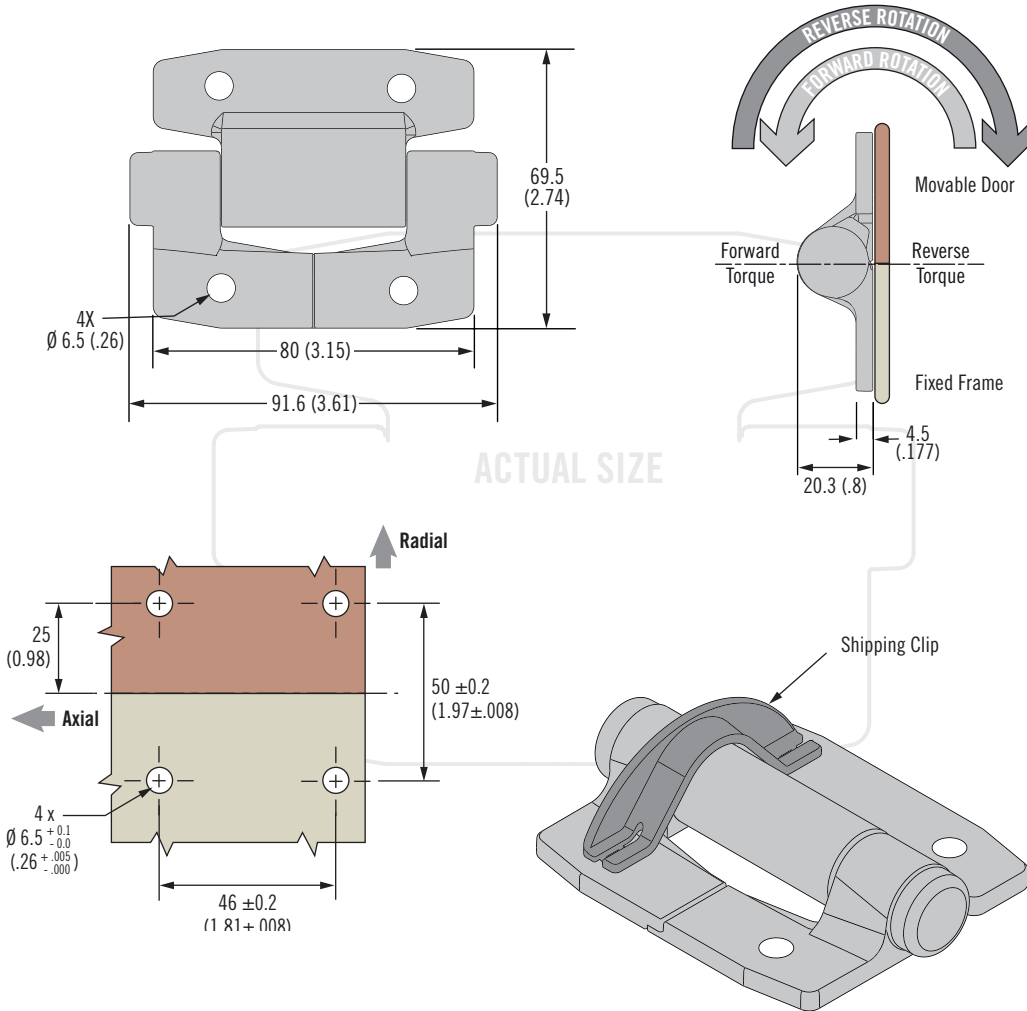
Average ultimate load: 6000 N (1300 lbf)

### Installation Notes

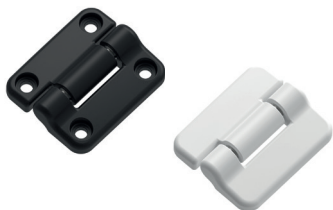
Do not remove shipping clip until hinge is secured by first pair of screws. Discard or recycle shipping clip when removed.

### Part Number

See table



Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10-620F0-50	2.3 (20)	Free
E6-10-635F0-50	3.9 (35)	Free
E6-10-650F0-50	5.7 (50)	Free
E6-10-665F0-50	7.3 (65)	Free
E6-10-680F0-50	9.0 (80)	Free
E6-10-695F0-50	10.7 (95)	Free
E6-10-6110F0-50	12.4 (110)	Free
E6-10-620R0-50	Free	2.3 (20)
E6-10-635R0-50	Free	3.9 (35)
E6-10-650R0-50	Free	5.7 (50)
E6-10-665R0-50	Free	7.3 (65)
E6-10-680R0-50	Free	9.0 (80)
E6-10-695R0-50	Free	10.7 (95)
E6-10-6110R0-50	Free	12.4 (110)



# E6 Hinge

Position control · Constant torque · Plastic

- Holds in every position
- No adjustment required
- Long cycle life
- Corrosion resistant
- Multiple mounting options
- Concealed mounting hardware

## Material and Finish

40 Series: Nylon,

black, stainless steel

50 Series: Nylon, steel, anodized aluminum

## Performance Details

Cycle performance

20,000 cycles, see trade drawing for details

Radial load:

Max. static load: 200 N (45 lbf)

Average ultimate load:

1500 N (335 lbf)

Axial load:

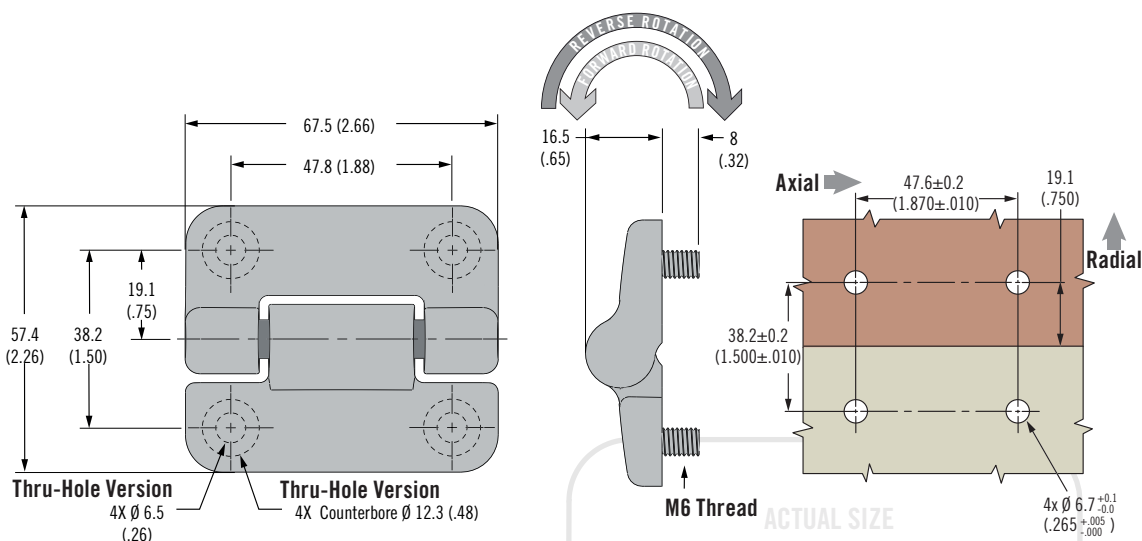
Max. static load: 200 N (45 lbf)

Average ultimate load:

2500 N (560 lbf)

## Part Number

See table



## 40 Series: Simplified torque mechanism providing a single, standard operating effort

Part Number		
Thru-Hole Mounting	Thread Stud Mounting	Symmetric Torque N·m (in·lbf)
E6-40-537S-20	E6-45-537S-20	4.18 (37)

## 50 Series: Constant torque mechanism providing customizable, precise operating efforts

Symmetric Torque Versions		
Part Number		Static Torque (forward and reverse) N·m (in·lbf)
Thru-Hole Mounting	Thread Stud Mounting	Free Operating
E6-50-500-XX	E6-55-500-XX	Free Operating
E6-50-535S-XX	E6-55-535S-XX	3.95 (35)
E6-50-530S-XX	E6-55-530S-XX	3.39 (30)
E6-50-525S-XX	E6-55-525S-XX	2.82 (25)
E6-50-520S-XX	E6-55-520S-XX	2.26 (20)
E6-50-515S-XX	E6-55-515S-XX	1.69 (15)

Asymmetric Torque Versions			
Part Number		Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
Thru-Hole Mounting	Thread Stud Mounting		
E6-50-540F-XX	E6-55-540F-XX	4.52 (40)	3.16 (28)
E6-50-535F-XX	E6-55-535F-XX	3.95 (35)	2.77 (24.5)
E6-50-530F-XX	E6-55-530F-XX	3.39 (30)	2.37 (21)
E6-50-525F-XX	E6-55-525F-XX	2.82 (25)	1.98 (17.5)
E6-50-520F-XX	E6-55-520F-XX	2.26 (20)	1.58 (14)
E6-50-515F-XX	E6-55-515F-XX	1.69 (15)	1.19 (10.5)
E6-50-540R-XX	E6-55-540R-XX	3.16 (28)	4.52 (40)
E6-50-535R-XX	E6-55-535R-XX	2.77 (24.5)	3.95 (35)
E6-50-530R-XX	E6-55-530R-XX	2.37 (21)	3.39 (30)
E6-50-525R-XX	E6-55-525R-XX	1.98 (17.5)	2.82 (25)
E6-50-520R-XX	E6-55-520R-XX	1.58 (14)	2.26 (20)
E6-50-515R-XX	E6-55-515R-XX	1.19 (10.5)	1.69 (15)

XX	Color
20	Black
10	White

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# ST-8A Hinge

Position control · Constant torque

- Holds in every position
- No adjustment required
- Long cycle life

### Material and Finish

Zinc alloy, black paint

### Performance Details

Cycle performance  
20,000 cycles within ±20% of static torque specification

### Installation Notes

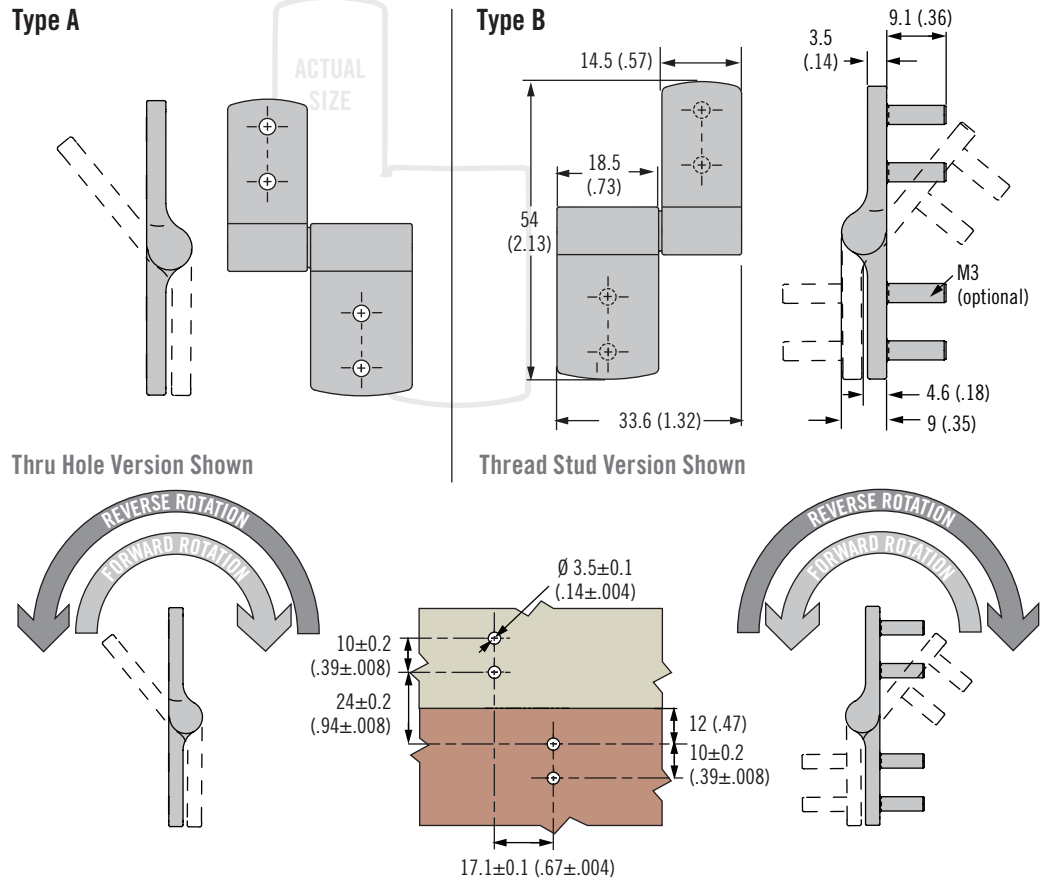
Thread stud install with M3 nuts (not supplied)

Thru hole install with M3 (No. 4) screws (not supplied)

To ensure proper function, assembly must include a minimum of one Type A and one Type B hinge

### Part Number

See table

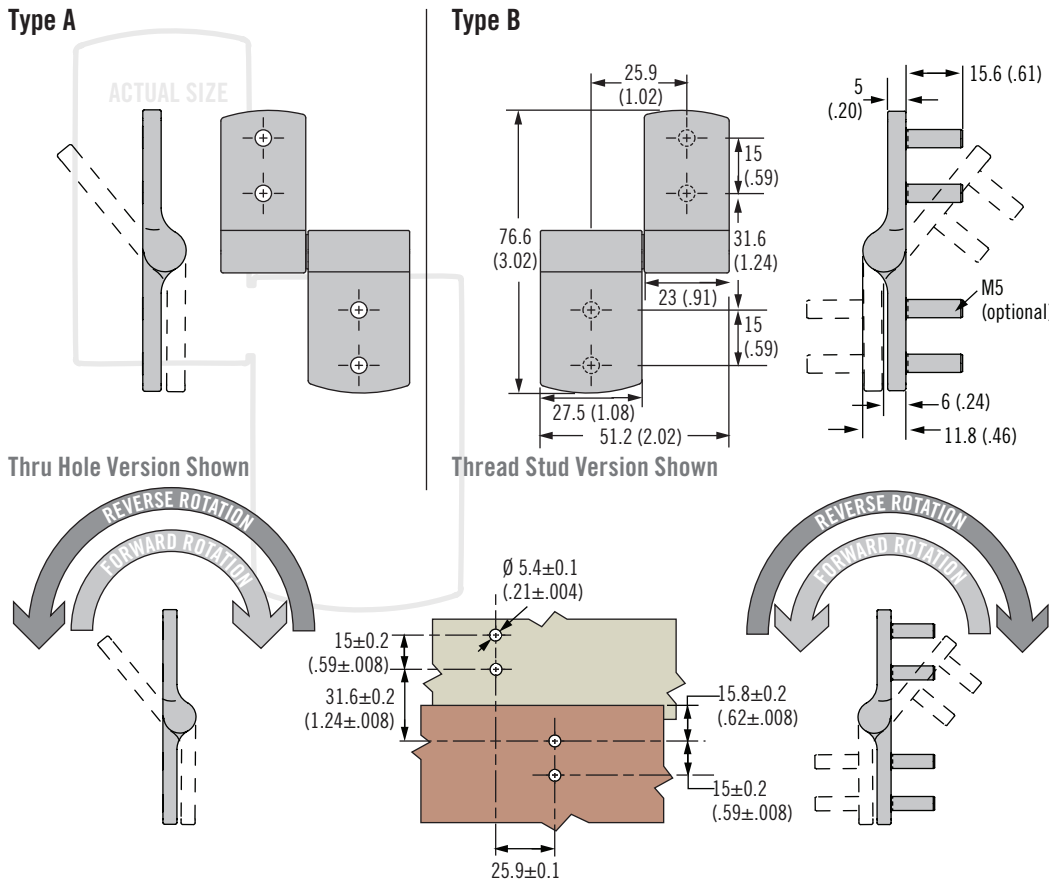


Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N·m (in·lbf)
M3 Thread Stud		Thru Hole		
Type A	Type B	Type A	Type B	
ST-8A1-40SA-50	ST-8A1-40SB-50	ST-8A-40SA-50	ST-8A-40SB-50	0.45 (4)
ST-8A1-60SA-50	ST-8A1-60SB-50	ST-8A-60SA-50	ST-8A-60SB-50	0.68 (6)
ST-8A1-80SA-50	ST-8A1-80SB-50	ST-8A-80SA-50	ST-8A-80SB-50	0.9 (8)

Asymmetric Torque Version					
Part Number				Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
M3 Thread Stud		Thru Hole			
Type A	Type B	Type A	Type B		
ST-8A1-40FA-50	ST-8A1-40FB-50	ST-8A-40FA-50	ST-8A-40FB-50	0.45 (4)	0.27 (2.4)
ST-8A1-60FA-50	ST-8A1-60FB-50	ST-8A-60FA-50	ST-8A-60FB-50	0.68 (6)	0.41 (3.6)
ST-8A1-80FA-50	ST-8A1-80FB-50	ST-8A-80FA-50	ST-8A-80FB-50	0.90 (8)	0.54 (4.8)
ST-8A1-100FA-50	ST-8A1-100FB-50	ST-8A-100FA-50	ST-8A-100FB-50	1.13 (10)	0.68 (6)
ST-8A1-40RA-50	ST-8A1-40RB-50	ST-8A-40RA-50	ST-8A-40RB-50	0.27 (2.4)	0.45 (4)
ST-8A1-60RA-50	ST-8A1-60RB-50	ST-8A-60RA-50	ST-8A-60RB-50	0.41 (3.6)	0.68 (6)
ST-8A1-80RA-50	ST-8A1-80RB-50	ST-8A-80RA-50	ST-8A-80RB-50	0.54 (4.8)	0.9 (8)
ST-8A1-100RA-50	ST-8A1-100RB-50	ST-8A-100RA-50	ST-8A-100RB-50	0.68 (6)	1.13 (10)

# ST-11A Hinge

Position control · Constant torque



- Holds in every position
- No adjustment required
- Long cycle life

### Material and Finish

Zinc alloy, black paint

### Performance Details

Cycle performance  
20,000 cycles within ±20% of static torque specification

### Installation Notes

Thread stud install with M5 nuts (not supplied)

Thru hole install with M5 (No. 10) screws (not supplied)

To ensure proper function, assembly must include a minimum of one Type A and one Type B hinge

Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N·m (in·lbf)
M5 Thread Stud		Thru Hole		
Type A	Type B	Type A	Type B	
ST-11A1-140SA-50	ST-11A1-140SB-50	ST-11A-140SA-50	ST-11A-140SB-50	1.58 (14)
ST-11A1-200SA-50	ST-11A1-200SB-50	ST-11A-200SA-50	ST-11A-200SB-50	2.26 (20)
ST-11A1-260SA-50	ST-11A1-260SB-50	ST-11A-260SA-50	ST-11A-260SB-50	2.94 (26)

Asymmetric Torque Version					
Part Number				Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
M5 Thread Stud		Thru Hole			
Type A	Type B	Type A	Type B		
ST-11A1-140FA-50	ST-11A1-140FB-50	ST-11A-140FA-50	ST-11A-140FB-50	1.58 (14)	0.95 (8.4)
ST-11A1-200FA-50	ST-11A1-200FB-50	ST-11A-200FA-50	ST-11A-200FB-50	2.26 (20)	1.36 (12)
ST-11A1-260FA-50	ST-11A1-260FB-50	ST-11A-260FA-50	ST-11A-260FB-50	2.94 (26)	1.76 (15.6)
ST-11A1-320FA-50	ST-11A1-320FB-50	ST-11A-320FA-50	ST-11A-320FB-50	3.62 (32)	2.17 (19.2)
ST-11A1-140RA-50	ST-11A1-140RB-50	ST-11A-140RA-50	ST-11A-140RB-50	0.95 (8.4)	1.58 (14)
ST-11A1-200RA-50	ST-11A1-200RB-50	ST-11A-200RA-50	ST-11A-200RB-50	1.36 (12)	2.26 (20)
ST-11A1-260RA-50	ST-11A1-260RB-50	ST-11A-260RA-50	ST-11A-260RB-50	1.76 (15.6)	2.94 (26)
ST-11A1-320RA-50	ST-11A1-320RB-50	ST-11A-320RA-50	ST-11A-320RB-50	2.17 (19.2)	3.62 (32)

### Part Number

See table