

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 ± 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)

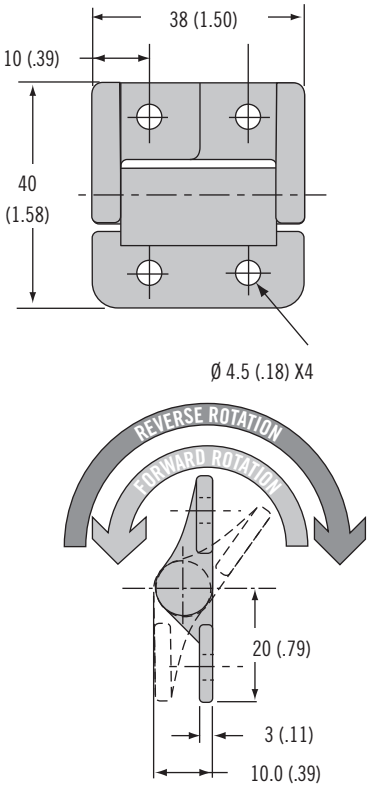
Axial load:
Large:
Maximum static load: 200 N (45 lbf)
Average ultimate load:
2800 N (630 lbf)

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

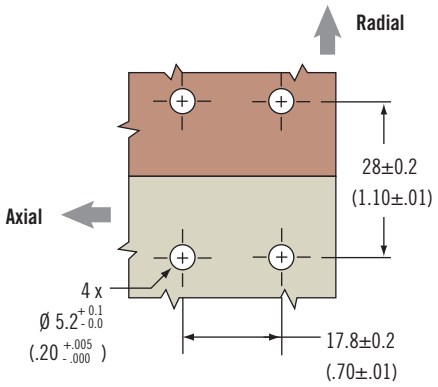
Part Number

See table

Medium



ACTUAL SIZE



Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
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)

Asymmetric

Part Number	Forward Torque N·m (in·lbf)	Reverse torque N·m (in·lbf)
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)

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/E6

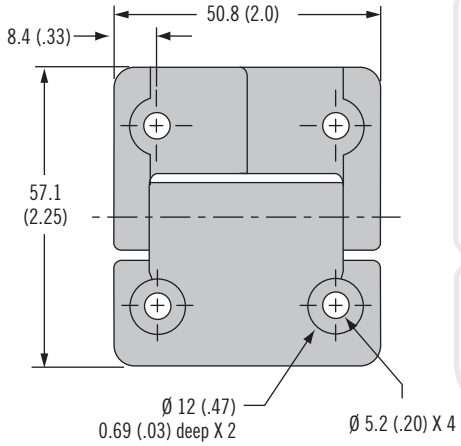
Dimensions in millimeters (inch) unless otherwise stated

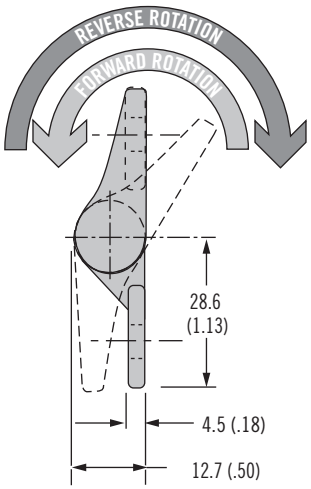
E6 Hinge

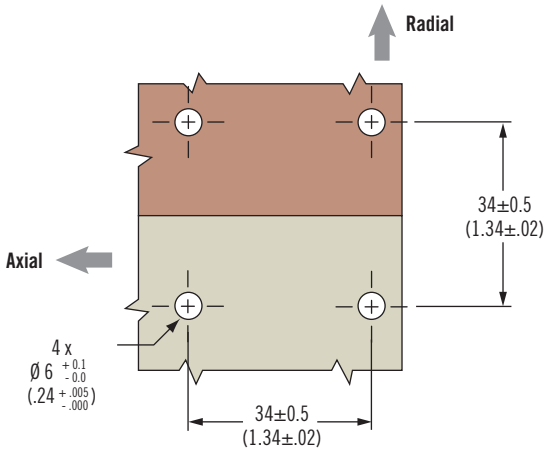
Position control · Constant torque



Large







Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
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 (in·lbf)	Reverse Torque N·m (in·lbf)
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)

- **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 ± 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

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/E6

Dimensions in millimeters (inch) unless otherwise stated



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

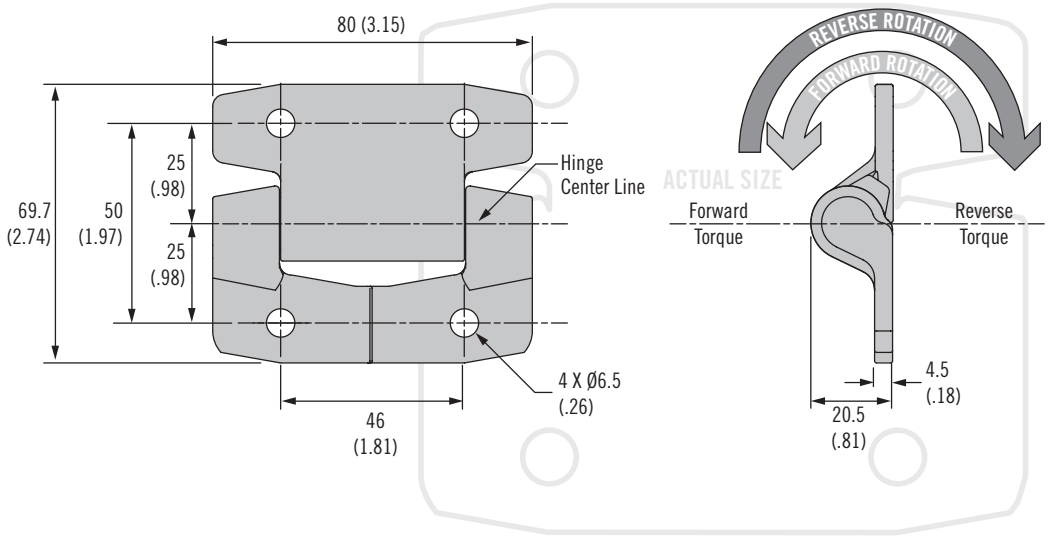
Cycle performance: 20,000 cycles within ± 20% of static torque specification

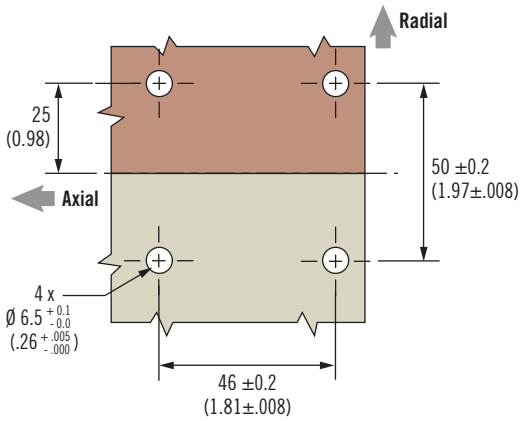
Radial load:
Max. static load: 2,000 N (450 lbf)
Average ultimate load:
12,800 N (2,875 lbf)

Axial load:
Max. static load: 500 N (110 lbf)
Average ultimate load:
10,800 N (2,425 lbf)

Part Number

See table





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)

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)

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

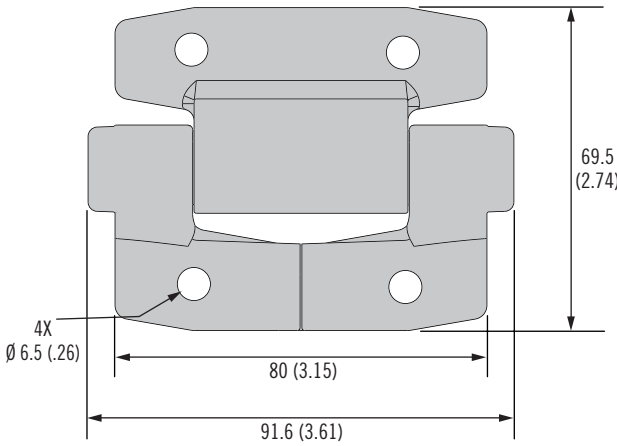
www.southco.com/E6

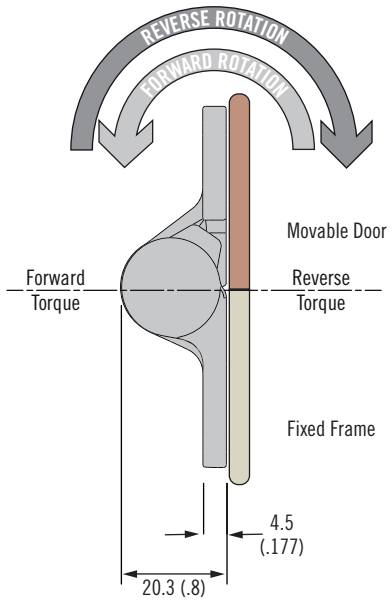
Dimensions in millimeters (inch) unless otherwise stated

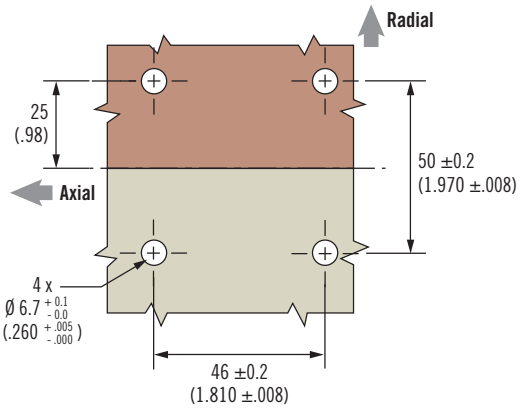
E6 Hinge

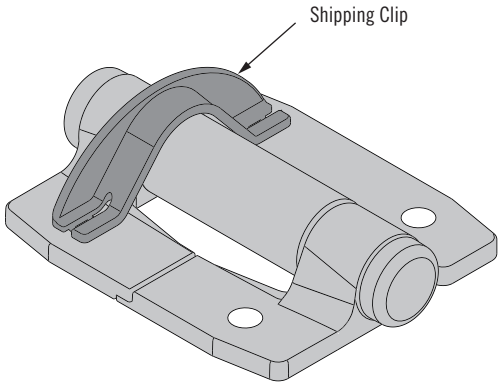
Position Control · Constant Torque · One Way











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)

- **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

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC **www.southco.com/E6**

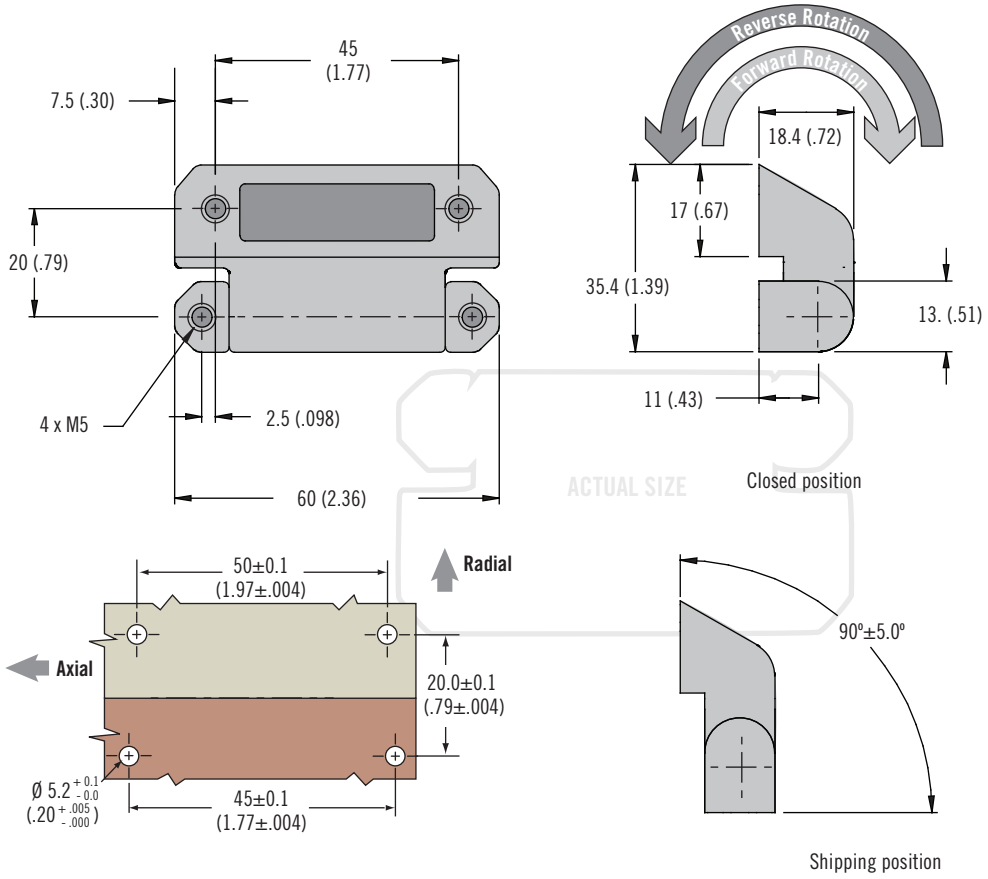
southco®
CONNECT · CREATE · INNOVATE

Dimensions in millimeters (inch) unless otherwise stated

E6 Hinge

Position control · Constant torque





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

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)

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC *www.southco.com/E6A*

Dimensions in millimeters (inch) unless otherwise stated



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

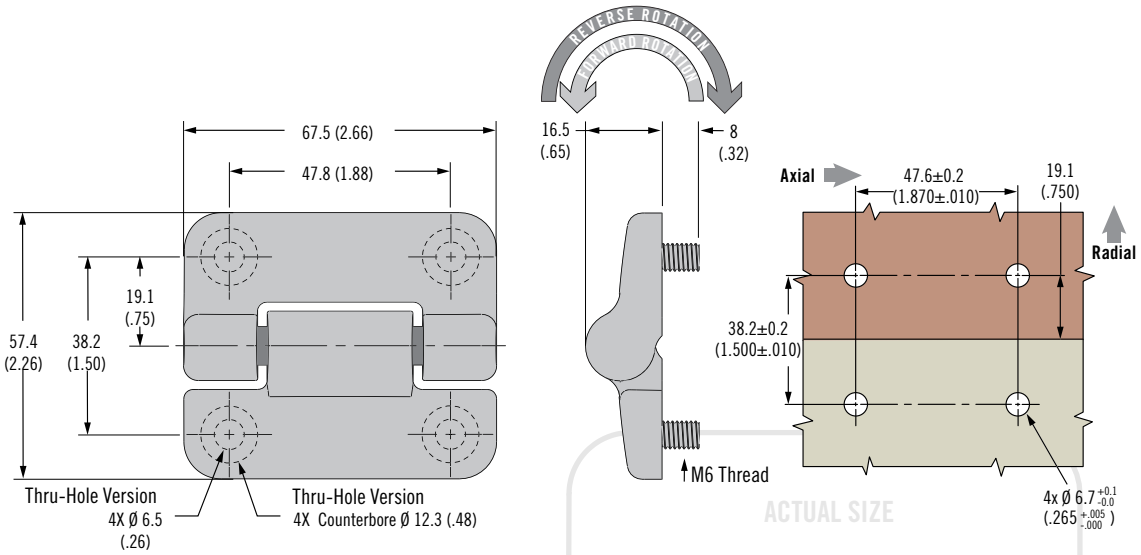
Cycle performance
20,000 cycles, see trade drawing for details

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	
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

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC *www.southco.com/E6*

Dimensions in millimeters (inch) unless otherwise stated



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

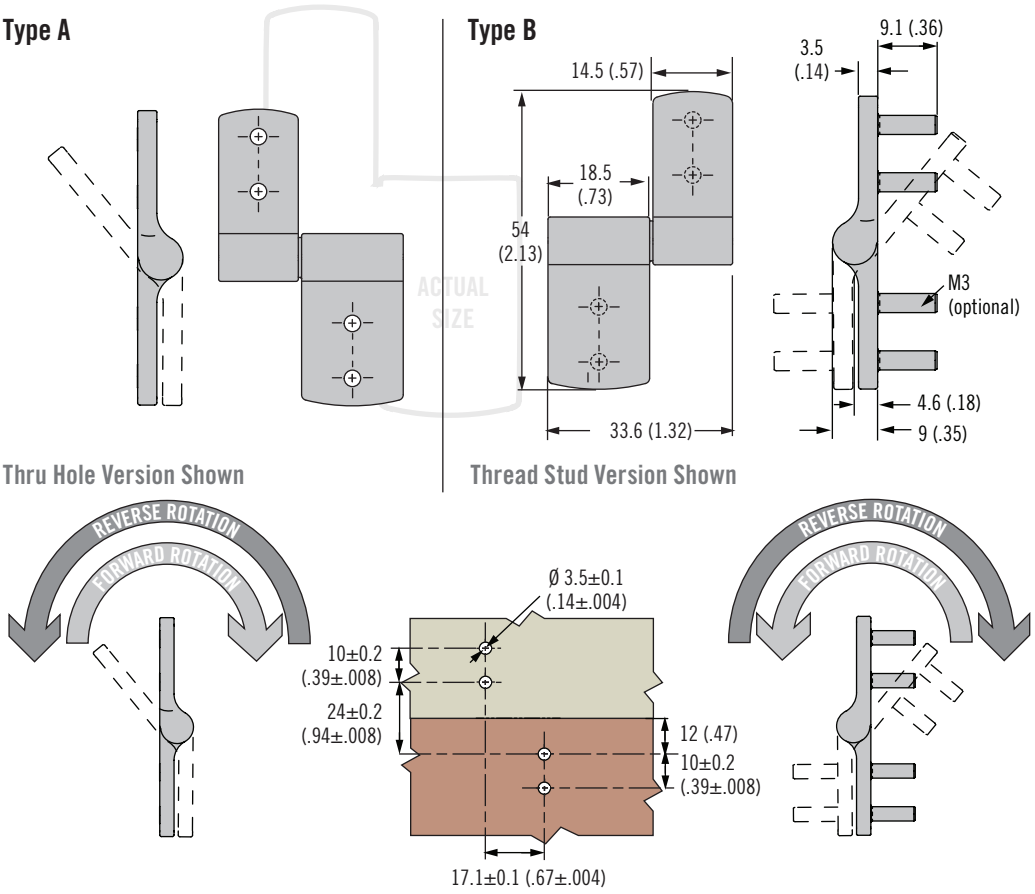
Thread stud install with M3 nuts (not supplied)

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)

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/ST1

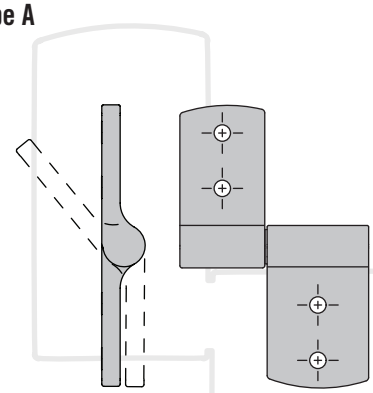
Dimensions in millimeters (inch) unless otherwise stated

ST-11A Hinge

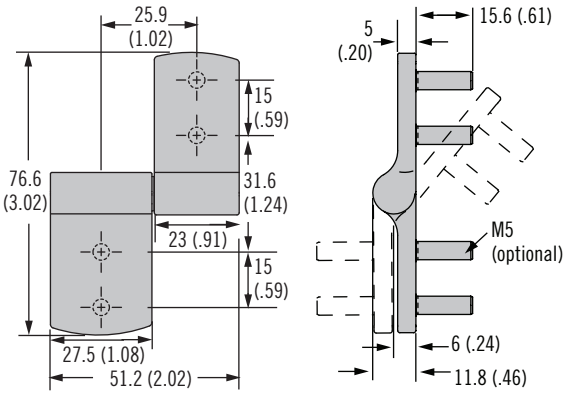
Position control · Constant torque



Type A

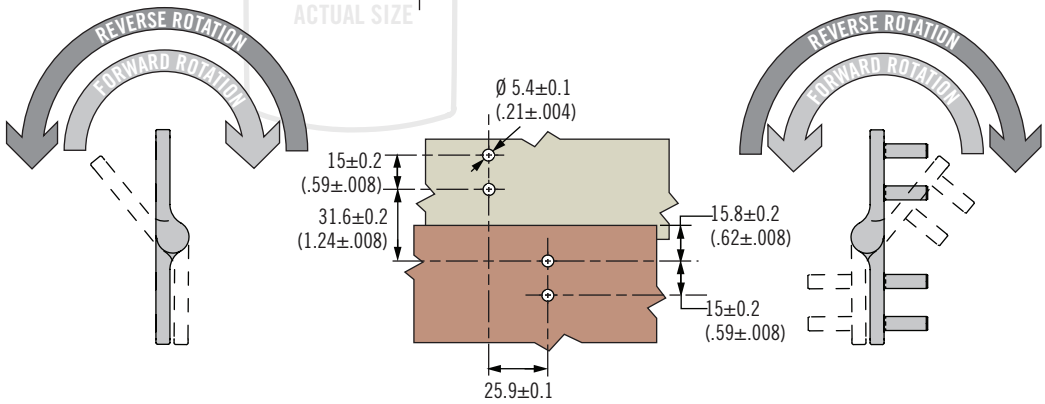


Type B



Thru Hole Version Shown

Thread Stud Version Shown



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)

- **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

Part Number

See table

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/ST1

Dimensions in millimeters (inch) unless otherwise stated