



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

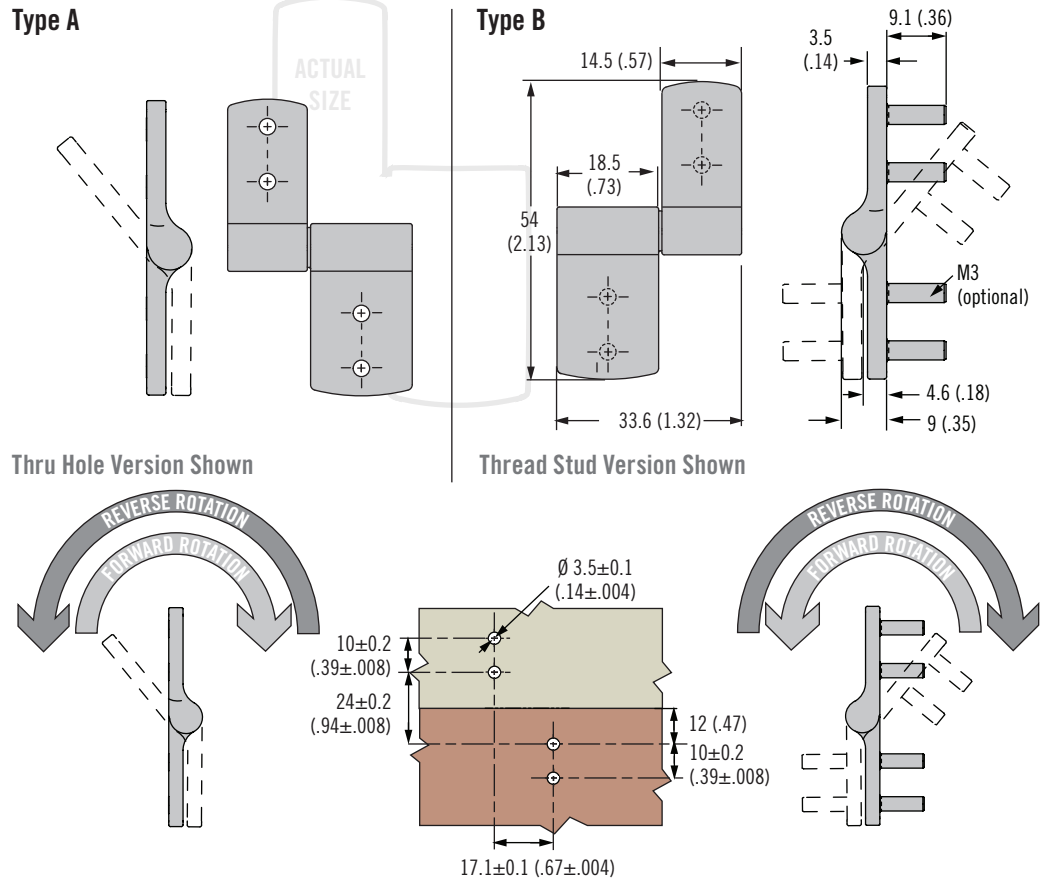
Thread stud install with M3 nuts (not supplied)

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

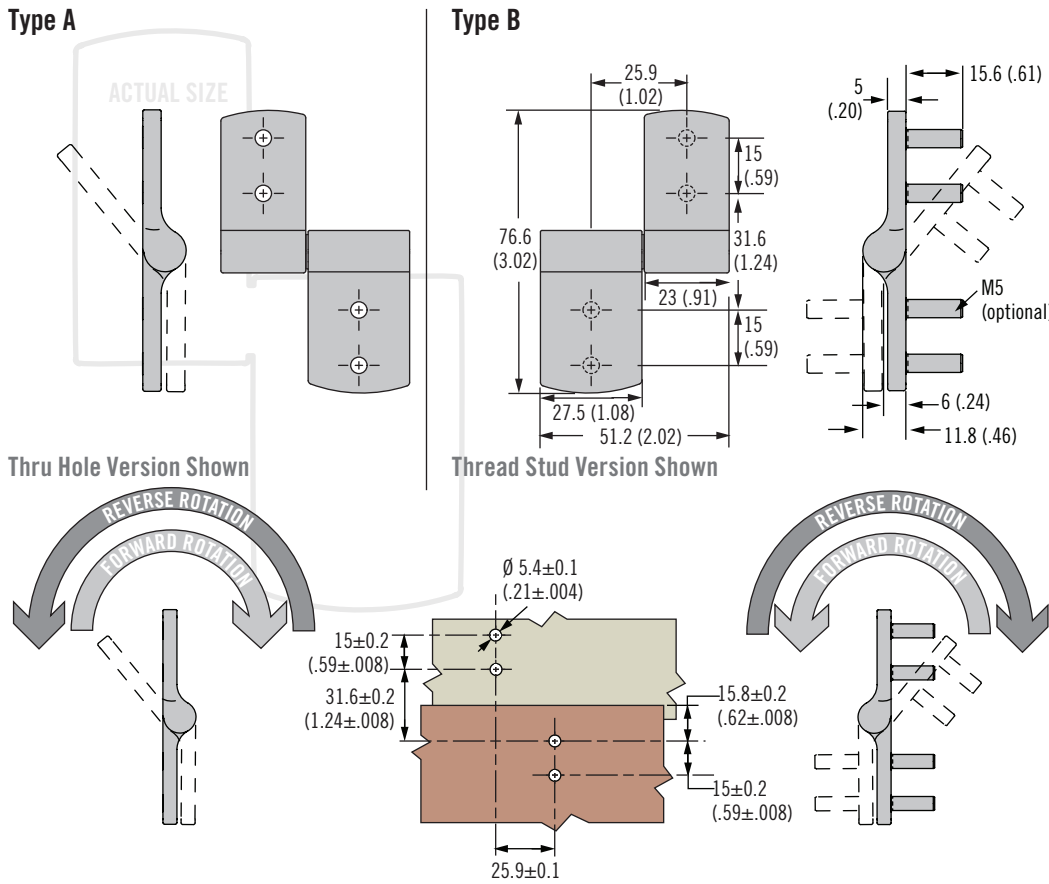


Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N·m (in·lbf)
M3 Thread Stud		Thru Hole		
Type A	Type B	Type A	Type B	
ST-8A1-40SA-50	ST-8A1-40SB-50	ST-8A-40SA-50	ST-8A-40SB-50	0.45 (4)
ST-8A1-60SA-50	ST-8A1-60SB-50	ST-8A-60SA-50	ST-8A-60SB-50	0.68 (6)
ST-8A1-80SA-50	ST-8A1-80SB-50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

Part Number

See table

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)



ST-7A Hinge

Position control · Constant torque

- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

Radial load:

Maximum static load: 400 N (90 lbf)

Axial load:

Maximum static load: 300 N (67 lbf)

Cycle performance:

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

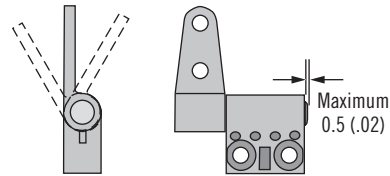
Installation Notes

1. Install hinge using No. 4 socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

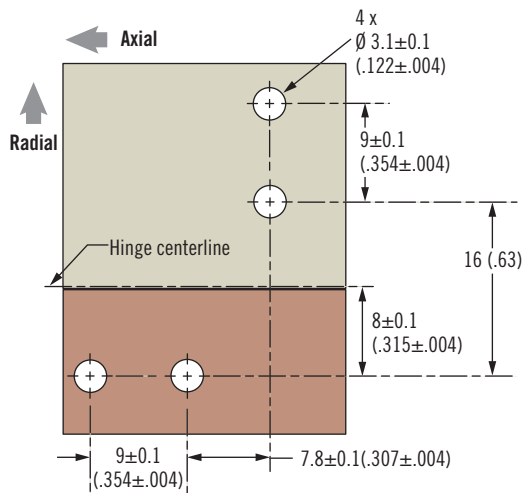
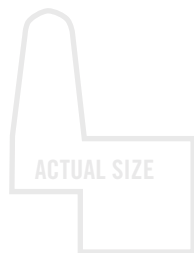
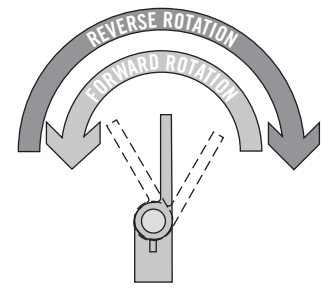
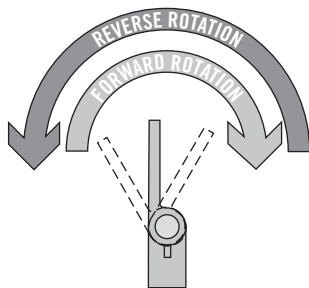
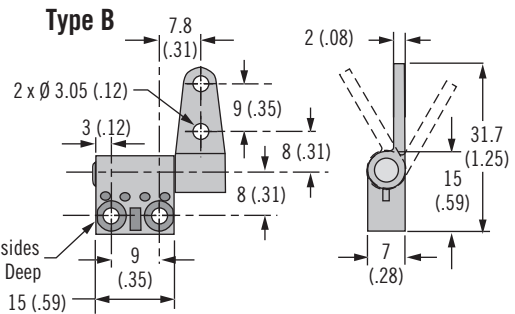
Part Number

See table

Type A



Type B



Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-7A-30SA-33	ST-7A-30SB-33	0.34 (3)
ST-7A-40SA-33	ST-7A-40SB-33	0.45 (4)
ST-7A-50SA-33	ST-7A-50SB-33	0.56 (5)

Asymmetric Torque Versions			
Part Number		Static Torque N·m (in·lbf)	
Type A	Type B	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-7A-40FA-33	ST-7A-40FB-33	0.45 (4)	0.27 (2.4)
ST-7A-50FA-33	ST-7A-50FB-33	0.56 (5)	0.37 (3)
ST-7A-60FA-33	ST-7A-60FB-33	0.68 (6)	0.41 (3.6)
ST-7A-40RA-33	ST-7A-40RB-33	0.27 (2.4)	0.45 (4)
ST-7A-50RA-33	ST-7A-50RB-33	0.34 (3)	0.56 (5)
ST-7A-60RA-33	ST-7A-60RB-33	0.41 (3.6)	0.68 (6)

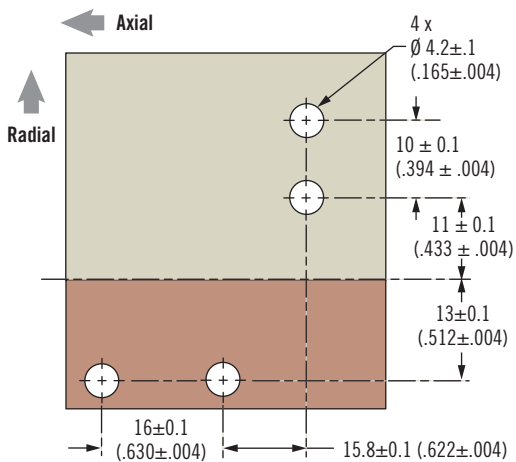
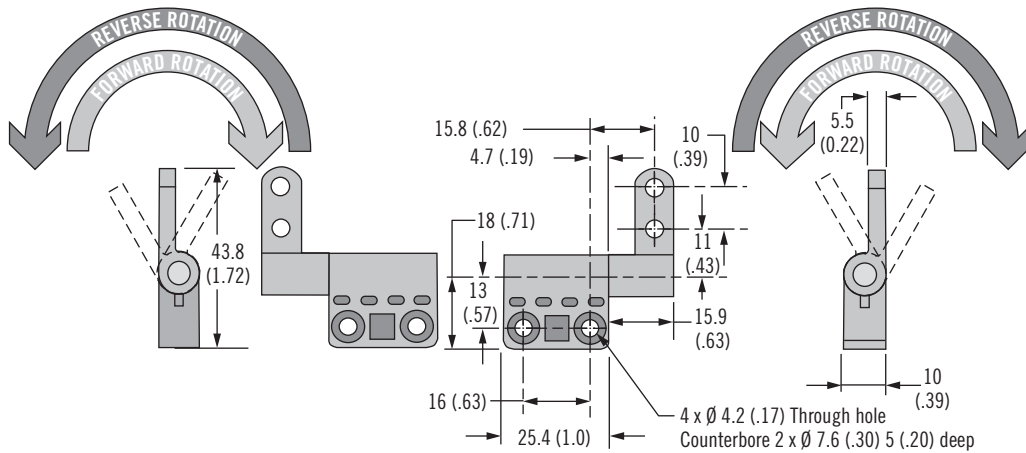
ST-10A Hinge

Position control · Constant torque



Type A

Type B



- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

Radial load:

Maximum static load:

500 N (112 lbf)

Axial load:

Maximum static load:

1000 N (225 lbf)

Cycle performance:

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

Installation Notes

1. Install hinge using M4 (No.8) socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

Part Number

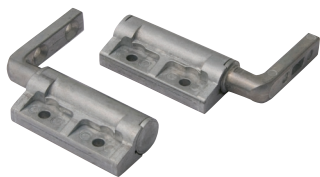
See table

Symmetric Torque Versions

Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-10A-80SA-33	ST-10A-80SB-33	0.90 (8)
ST-10A-120SA-33	ST-10A-120SB-33	1.36 (12)
ST-10A-160SA-33	ST-10A-160SB-33	1.81 (16)
ST-10A-200SA-33	ST-10A-200SB-33	2.26 (20)

Asymmetric Torque Versions

Part Number		Static Torque N·m (in·lbf)	
Type A	Type B	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-10A-120FA-33	ST-10A-120FB-33	1.36 (12)	0.81 (7.2)
ST-10A-160FA-33	ST-10A-160FB-33	1.81 (16)	1.08 (9.6)
ST-10A-200FA-33	ST-10A-200FB-33	2.26 (20)	1.36 (12)
ST-10A-120RA-33	ST-10A-120RB-33	0.81 (7.2)	1.34 (12)
ST-10A-160RA-33	ST-10A-160RB-33	1.08 (9.6)	1.84 (16)
ST-10A-200RA-33	ST-10A-200RB-33	1.36 (12)	2.26 (20)



ST-10E Hinge

Position control · Constant torque

- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

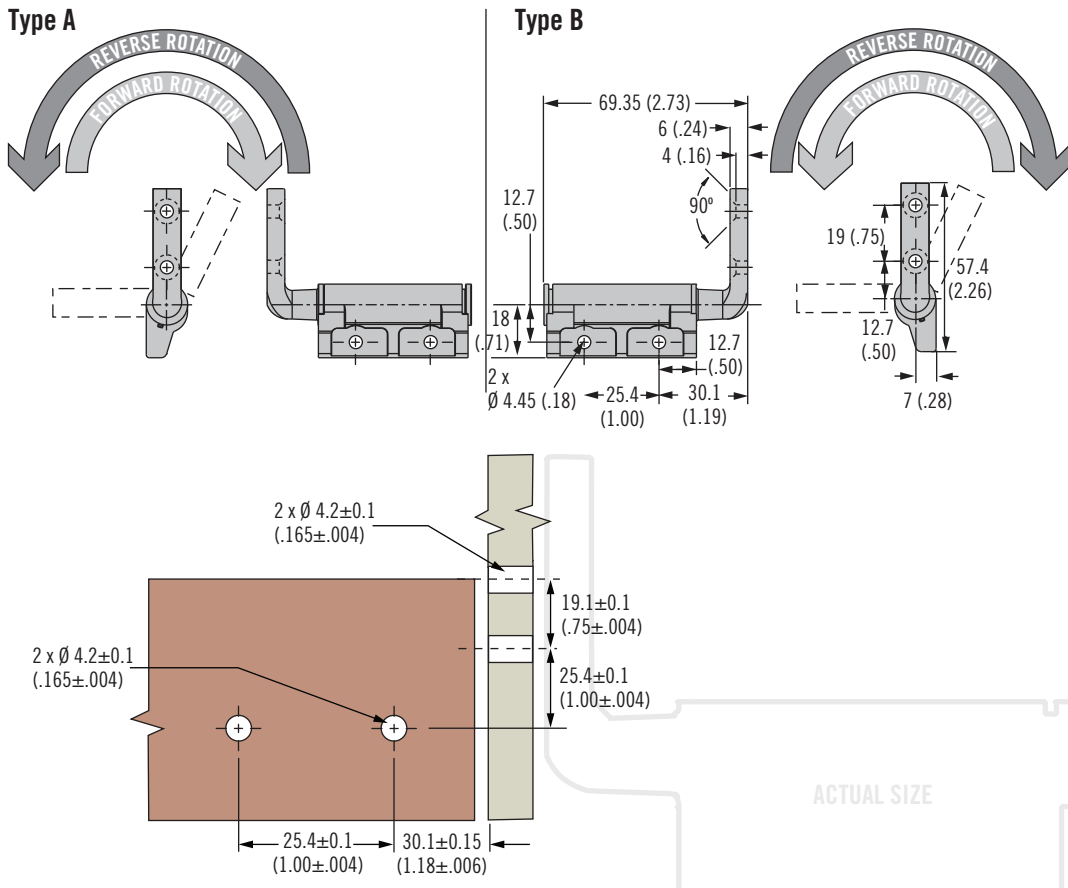
Cycle performance:
20,000 cycles within ±20% of static torque specification

Installation Notes

1. Install hinge using M4 (No.8) socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

Part Number

See table

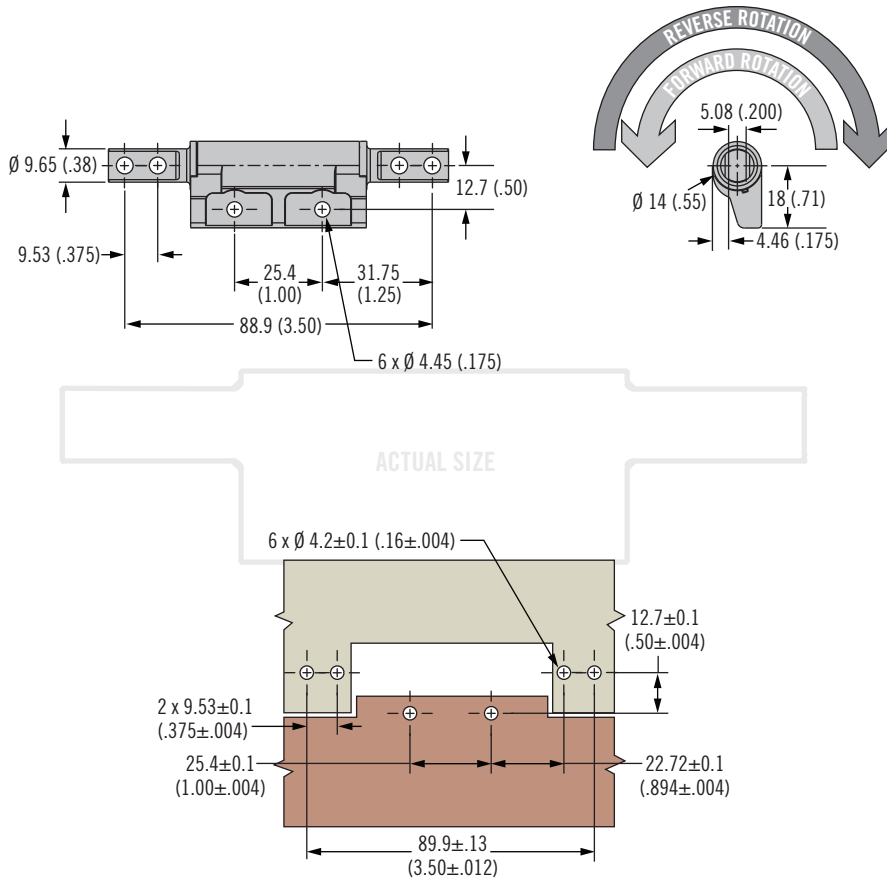


Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-10E-120SE-33	ST-10E-120SG-33	1.35 (12)
ST-10E-200SE-33	ST-10E-200SG-33	2.26 (20)
ST-10E-280SE-33	ST-10E-280SG-33	3.16 (28)
ST-10E-360SE-33	ST-10E-360SG-33	4.06 (36)

Asymmetric Torque Versions			
Part Number		Static Torque N·m (in·lbf)	
Type A	Type B	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-10E-200FE-33	ST-10E-200FG-33	2.26 (20)	1.35 (12)
ST-10E-280FE-33	ST-10E-280FG-33	3.16 (28)	2.26 (20)
ST-10E-360FE-33	ST-10E-360FG-33	4.06 (36)	2.44 (21.6)
ST-10E-440FE-33	ST-10E-440FG-33	4.97 (44)	2.93 (26)
ST-10E-200RE-33	ST-10E-200RG-33	1.35 (12)	2.26 (20)
ST-10E-280RE-33	ST-10E-280RG-33	2.26 (20)	3.16 (28)
ST-10E-360RE-33	ST-10E-360RG-33	2.44 (21.6)	4.06 (36)
ST-10E-440RE-33	ST-10E-440RG-33	2.93 (26)	4.97 (44)

ST-10E Hinge

Position control · Constant torque



- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

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

Installation Notes

Install hinge using M4 (No.8) socket head cap screw

Part Number

See table

Symmetric Torque Versions	
Part Number	Static Torque (Forward and Reverse) N·m (in·lbf)
ST-10E-120SH-33	1.35 (12)
ST-10E-200SH-33	2.26 (20)
ST-10E-280SH-33	3.16 (28)
ST-10E-360SH-33	4.06 (36)

Asymmetric Torque Versions		
Part Number	Static Torque N·m (in·lbf)	
	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-10E-200FH-33	2.26 (20)	1.35 (12)
ST-10E-280FH-33	3.16 (28)	1.89 (16.8)
ST-10E-360FH-33	4.06 (36)	2.44 (21.6)
ST-10E-440FH-33	4.97 (44)	2.93 (26)
ST-10E-200RH-33	1.35 (12)	2.26 (20)
ST-10E-280RH-33	1.89 (16.8)	3.16 (28)
ST-10E-360RH-33	2.44 (21.6)	4.06 (36)
ST-10E-440RH-33	2.93 (26)	4.97 (44)



ST-10E Hinge

Position control · Constant torque

- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

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

Installation Notes

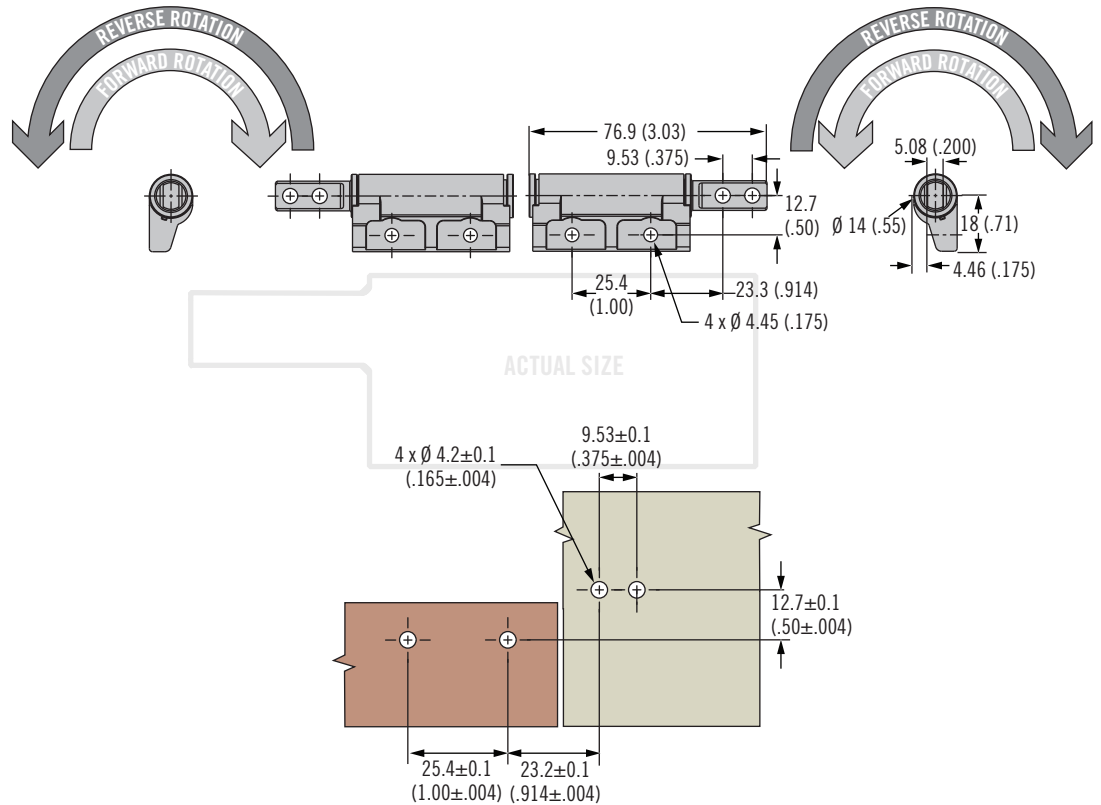
1. Install hinge using M4 (No. 8 socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

Part Number

See table

Type A

Type B

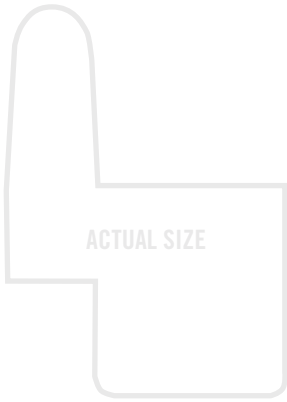
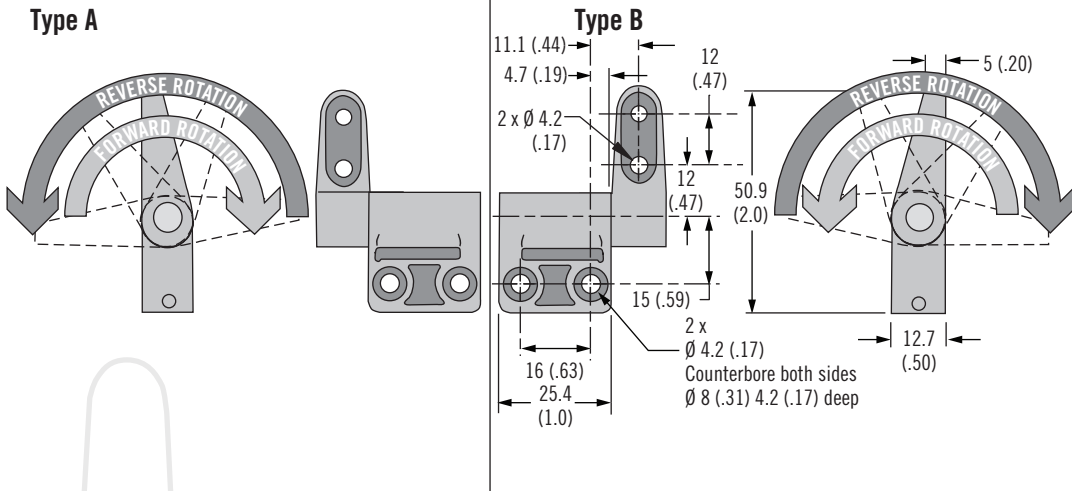
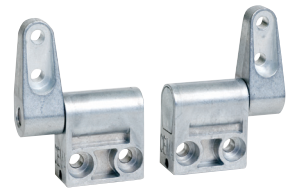


Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-10E-120SJ-33	ST-10E-120SK-33	1.35 (12)
ST-10E-200SJ-33	ST-10E-200SK-33	2.26 (20)
ST-10E-280SJ-33	ST-10E-280SK-33	3.16 (28)
ST-10E-360SJ-33	ST-10E-360SK-33	4.06 (36)

Asymmetric Torque Versions			
Part Number		Static Torque N·m (in·lbf)	
Type A	Type B	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-10E-200FJ-33	ST-10E-200FK-33	2.26 (20)	1.35 (12)
ST-10E-280FJ-33	ST-10E-280FK-33	3.16 (28)	1.89 (16.8)
ST-10E-360FJ-33	ST-10E-360FK-33	4.06 (36)	2.44 (21.6)
ST-10E-440FJ-33	ST-10E-440FK-33	4.97 (44)	2.93 (26)
ST-10E-200RJ-33	ST-10E-200RK-33	1.35 (12)	2.26 (20)
ST-10E-280RJ-33	ST-10E-280RK-33	1.89 (16.8)	3.16 (28)
ST-10E-360RJ-33	ST-10E-360RK-33	2.44 (21.6)	4.06 (36)
ST-10E-440RJ-33	ST-10E-440RK-33	2.93 (26)	4.97 (44)

ST-12A Hinge

Position control · Constant torque



- Smooth, zero backlash operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

Radial load:

Maximum static load:

1000 N (225 lbf)

Axial load:

Maximum static load:

1200 N (270 lbf)

Cycle performance:

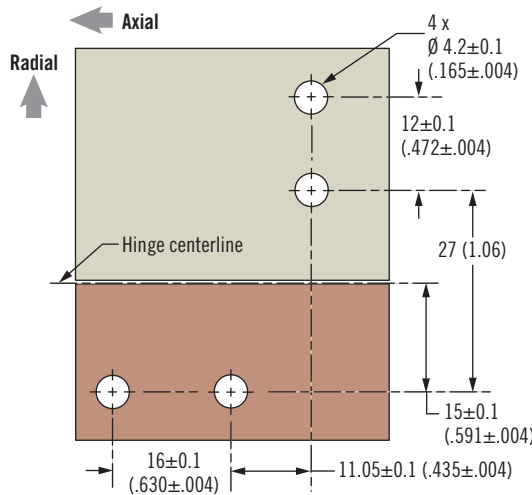
20,000 cycles within ±20% of static torque specification

Installation Notes

1. Install hinge using M4 (No. 8) socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

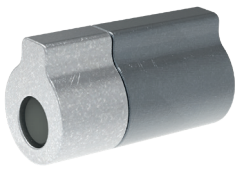
Part Number

See table



Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-12A-120SA-33	ST-12A-120SB-33	1.4 (12)
ST-12A-200SA-33	ST-12A-200SB-33	2.3 (20)
ST-12A-280SA-33	ST-12A-280SB-33	3.2 (28)
ST-12A-360SA-33	ST-12A-360SB-33	4.1 (36)

Asymmetric Torque Versions			
Part Number		Static Torque N·m (in·lbf)	
Type A	Type B	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-12A-200FA-33	ST-12A-200FB-33	2.3 (20)	1.5 (13.6)
ST-12A-280FA-33	ST-12A-280FB-33	3.2 (28)	2.2 (19.1)
ST-12A-360FA-33	ST-12A-360FB-33	4.1 (36)	2.8 (24.6)
ST-12A-440FA-33	ST-12A-440FB-33	5 (44)	3.4 (30)
ST-12A-200RA-33	ST-12A-200RB-33	1.5 (13.6)	2.3 (20)
ST-12A-280RA-33	ST-12A-280RB-33	2.2 (19.1)	3.2 (28)
ST-12A-360RA-33	ST-12A-360RB-33	2.8 (24.6)	4.1 (36)
ST-12A-440RA-33	ST-12A-440RB-33	3.4 (30)	5 (44)



ST-4A , ST-5A, ST-10P Hinge

Position control · Constant torque

- Smooth consistent operation
- Compact design fits the smallest applications
- Never requires adjustment

Material and Finish

Aluminum, zinc alloy and steel, natural

Performance Details

Cycle performance:
20,000 cycles, see trade drawing at southco.com for details

ST-4A

Radial load:
Maximum static load:
200 N (45 lbf)

ST-5A

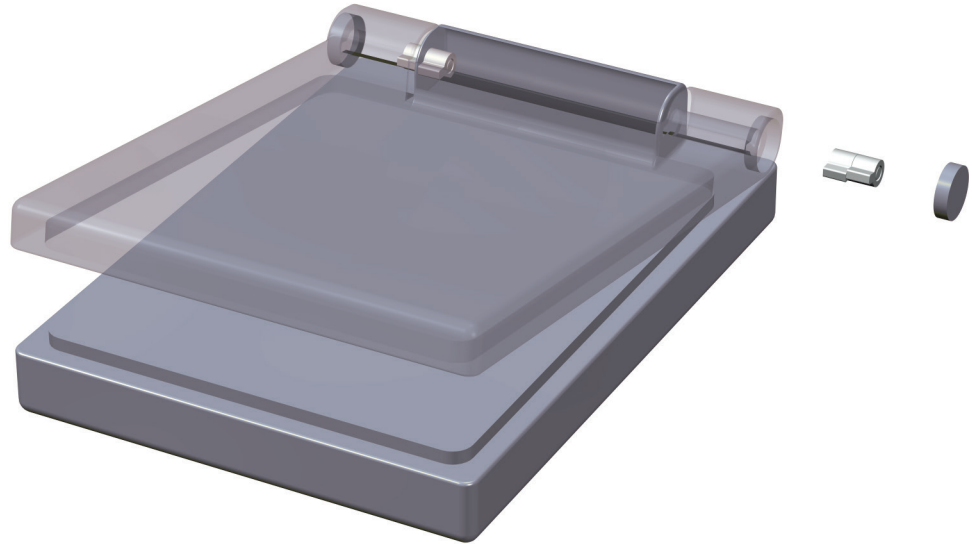
Radial load:
Maximum static load:
223 N (50 lbf)

ST-10P

Radial load:
Maximum static load:
400N

Part Number

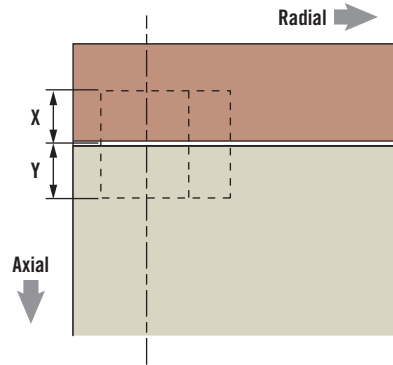
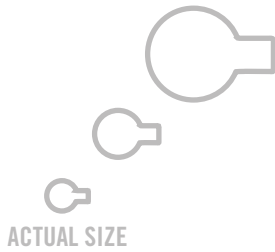
See table



Part Number	Static Torque		X	Y
	Forward N·m (in·lbf)	Reverse N·m (in·lbf)		
ST-4A-3S-33	0.03 (0.3)		3.5 (.14)	3.5 (.14)
ST-4A-8S-33	0.08 (0.75)		9.5 (.37)	9.5 (.37)
ST-5A-10S-33	0.11 (1.0)		4.15 (.163)	7.4 (.291)
ST-5A-16S-33	0.18 (1.6)			
ST-5A-23S-33	0.26 (2.3)			
ST-5A-30S-33	0.34 (3.0)			
ST-10P-040S-33	0.45 (4)		9 (.35)	20.5 (.81)
ST-10P-080S-33	0.9 (8)			
ST-10P-100S-33	1.13 (10)			
ST-10P-140S-33	1.58 (14)			
ST-10P-040R-33	0.32 (2.8)	0.45 (4)		
ST-10P-080R-33	0.63 (5.6)	0.9 (8)		
ST-10P-120R-33	0.95 (8.4)	1.36 (12)		
ST-10P-160R-33	1.27 (11.2)	1.81 (16)		
ST-10P-040F-33	0.45 (4)	0.32 (2.8)		
ST-10P-080F-33	0.9 (8)	0.63 (5.6)		
ST-10P-120F-33	1.36 (12)	0.95 (8.4)		
ST-10P-160F-33	1.81 (16)	1.27 (11.2)		

ST-4A, ST-5A, ST-10P Hinge

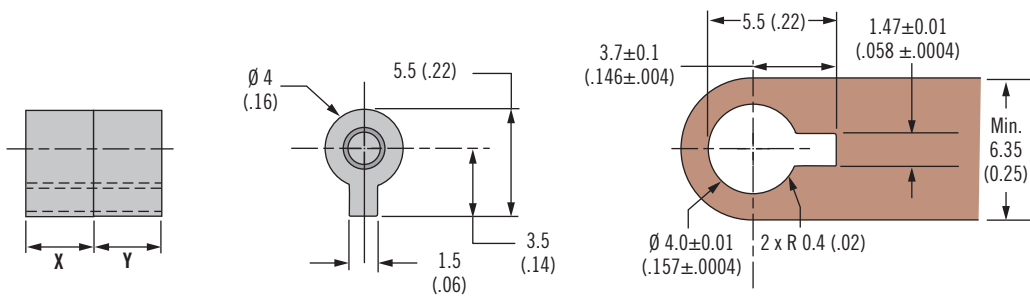
Position control · Constant torque



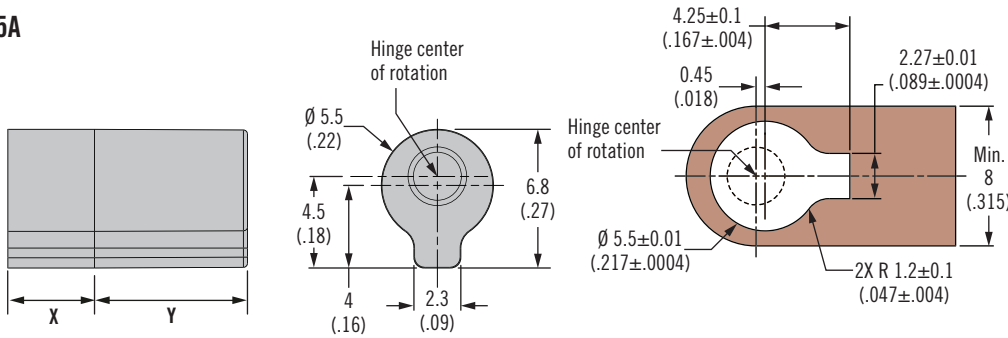
- Smooth consistent operation
- Compact design fits the smallest applications
- Never requires adjustment



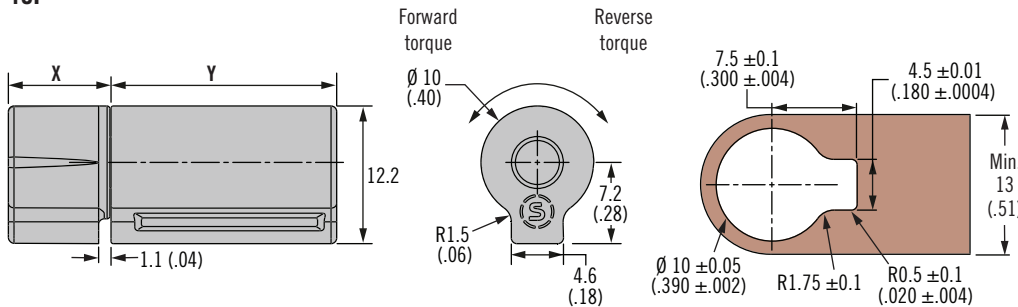
ST-4A



ST-5A



ST-10P



Part Number

See table



ST-20L Hinge

Position control · Constant torque · Press-in · Nut mounting

- Smooth operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Material and Finish

Zinc alloy and steel, natural

Performance Details

Radial load:

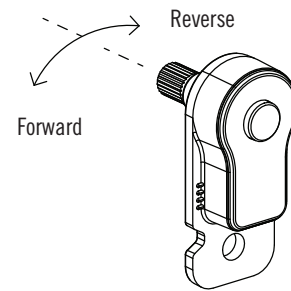
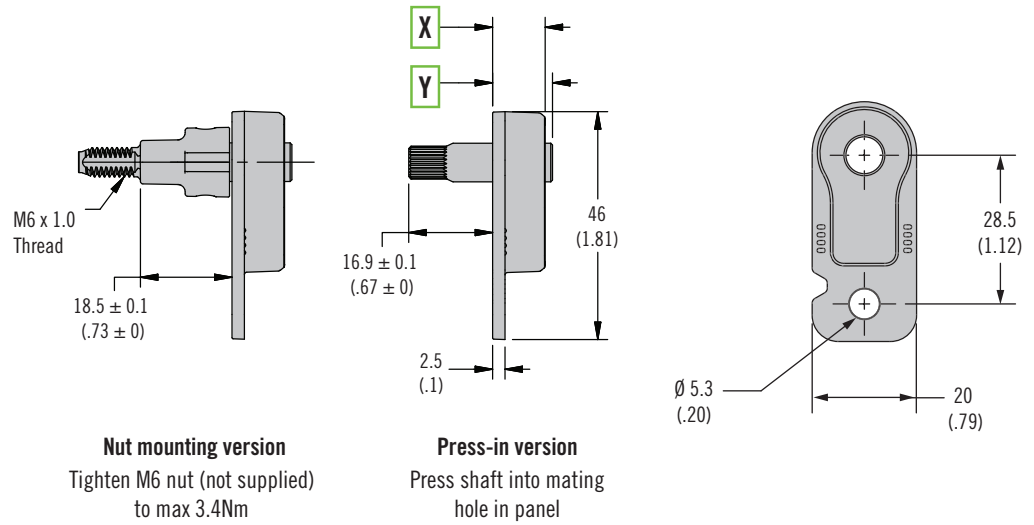
Maximum static load: 400 N (90 lbf)

Axial load:

Please note this hinge will not resist axial loads.

Cycle performance:

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



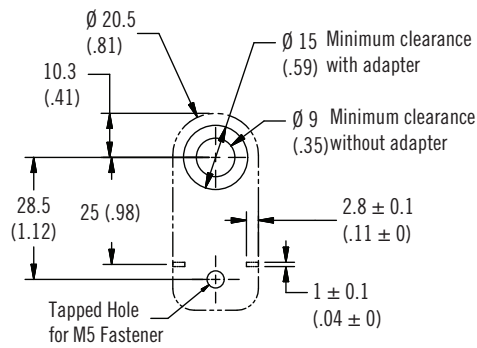
Part Number

See table

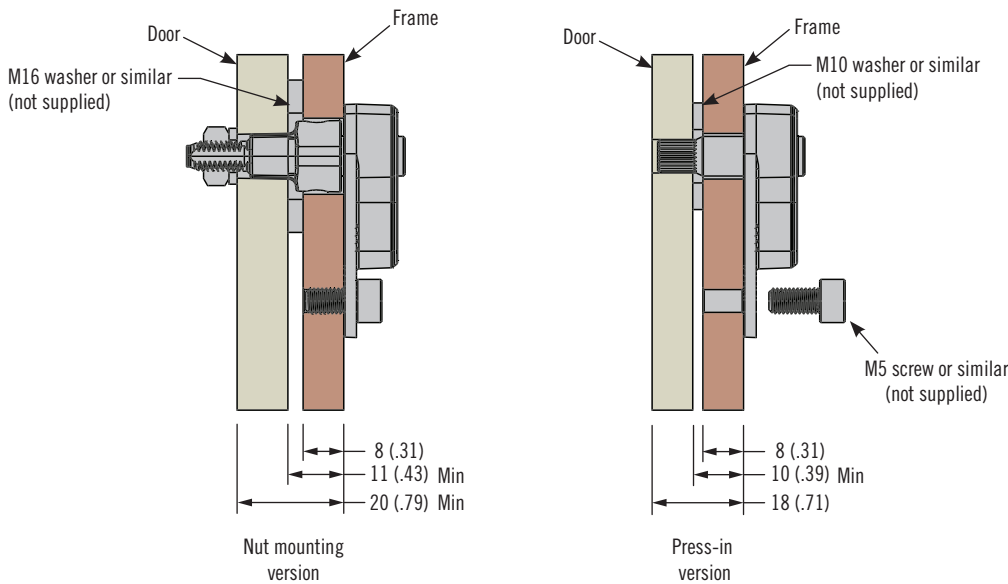
	Part Number	Forward Torque Nm (ibf.in)	Reverse Torque Nm (ibf.in)	Dimension X mm (in)	Dimension Y mm (in)
Press-In	ST-20L-100FA/B-33	1.0 (8.9)	0.75 (6.6)	7.2 (.28)	8.8 (.35)
	ST-20L-100RA/B-33	0.75 (6.6)	1.0 (8.9)		
	ST-20L-200SA/B-33	1.75 (15.3)		8.9 (.35)	12.1 (.48)
	ST-20L-300FA/B-33	3.0 (26.6)	2.3 (19.9)		
	ST-20L-300RA/B-33	2.3 (19.9)	3.0 (26.6)		
	ST-20L-400SA/B-33	3.5 (31)			
Nut Mount	ST-20L-100FJ/K-33	1.0 (8.9)	0.75 (6.6)	7.2 (.28)	8.8 (.35)
	ST-20L-100RJ/K-33	0.75 (6.6)	1.0 (8.9)		
	ST-20L-200SJ/K-33	1.75 (15.3)		8.9 (.35)	12.1 (.48)
	ST-20L-300FJ/K-33	3.0 (26.6)	2.3 (19.9)		
	ST-20L-300RJ/K-33	2.3 (19.9)	3.0 (26.6)		
	ST-20L-400SJ/K-33	3.5 (31)			

ST-20L Hinge

Position control · Constant torque · Panel Preparation



SIMPLIFIED INSTALLATION DETAILS



- Smooth operation
- Space efficient design provides high torque in minimum space
- Constant torque, never needs adjusting

Installation Notes

1. Install hinge using M5 screw (not supplied)
2. For proper function, application should include a pair of hinges and constrain the system axially.
3. Hinge installation to frame or door may be reversed, but should be used as opposing pairs to avoid the hinge coming apart.
4. For alternative panel thicknesses and adaption to your application, please contact Southco
5. For panel preparation and installation details please refer to Southco trade drawing.

