



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

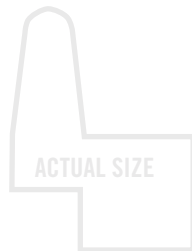
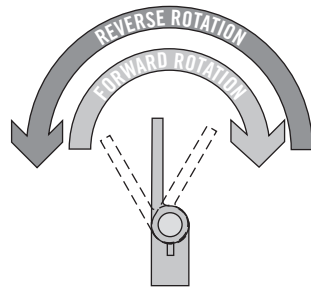
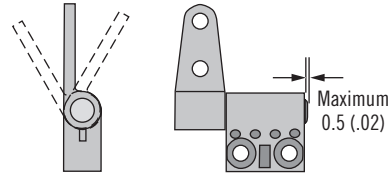
Installation Notes

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.

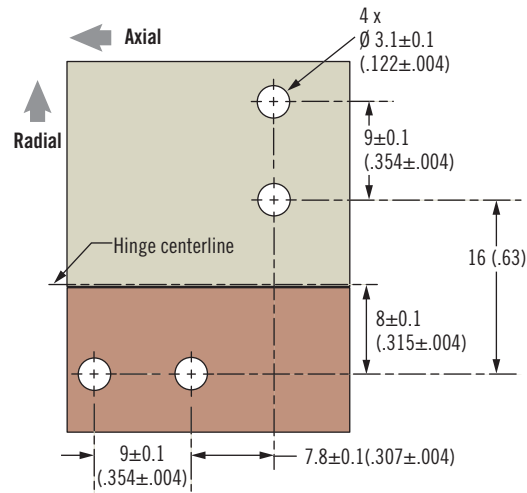
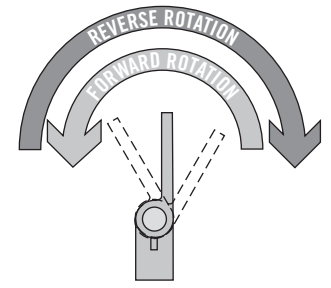
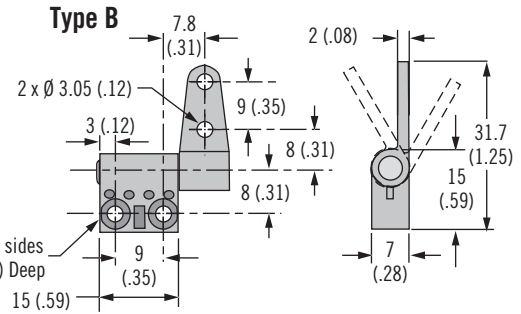
Part Number

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)

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



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Dimensions in millimeters (inch) unless otherwise stated

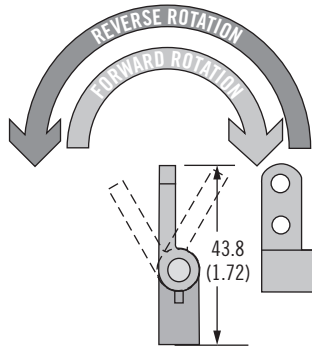
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ST-10A Hinge

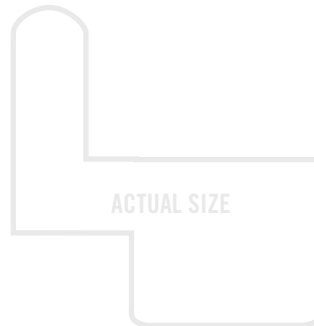
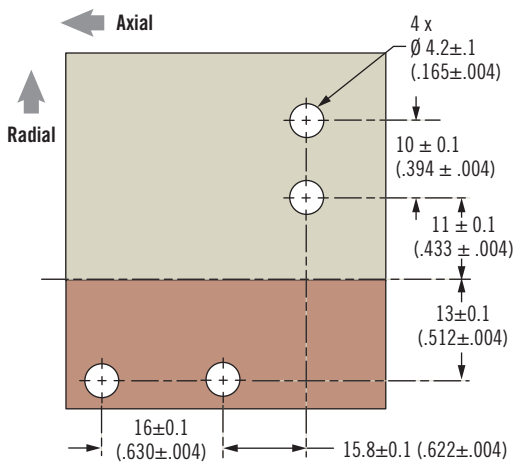
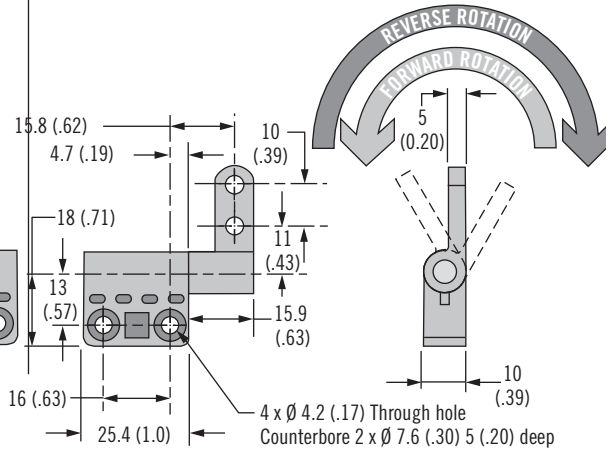
Position control · Constant torque



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:

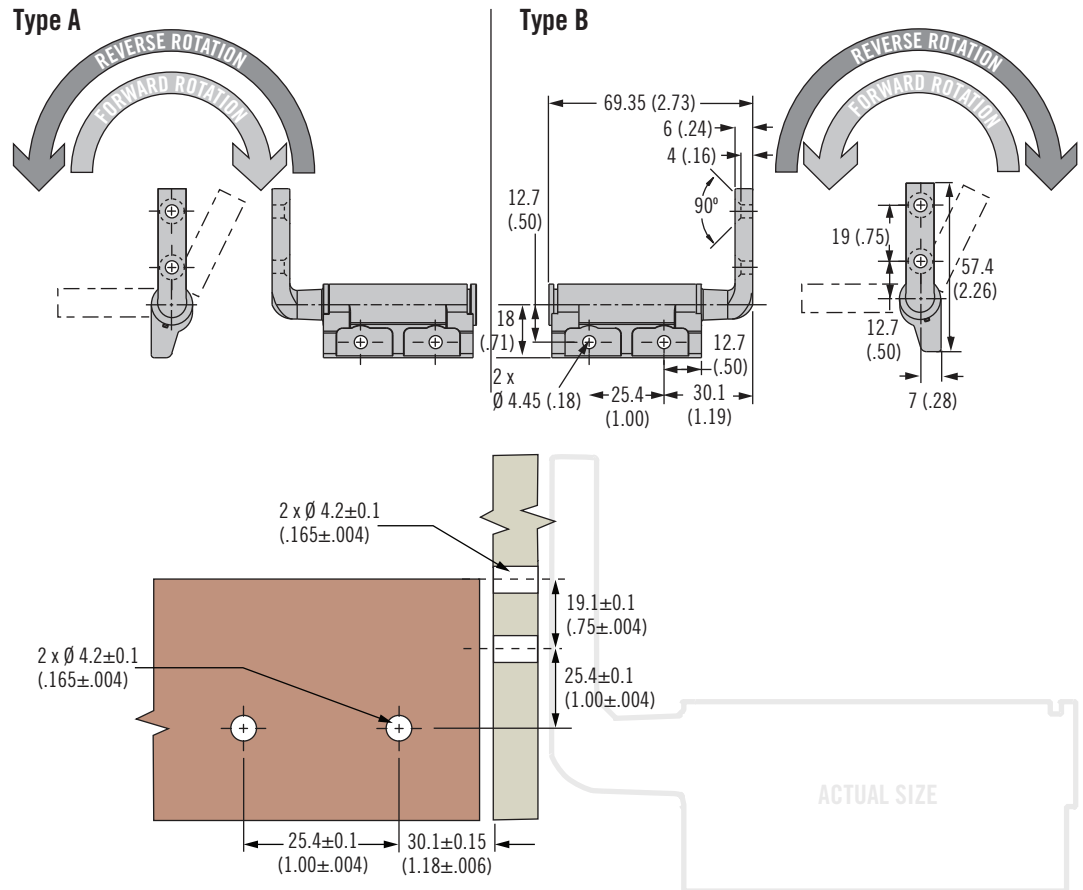
20,000 cycles within $\pm 20\%$ of static torque specification

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



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)

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



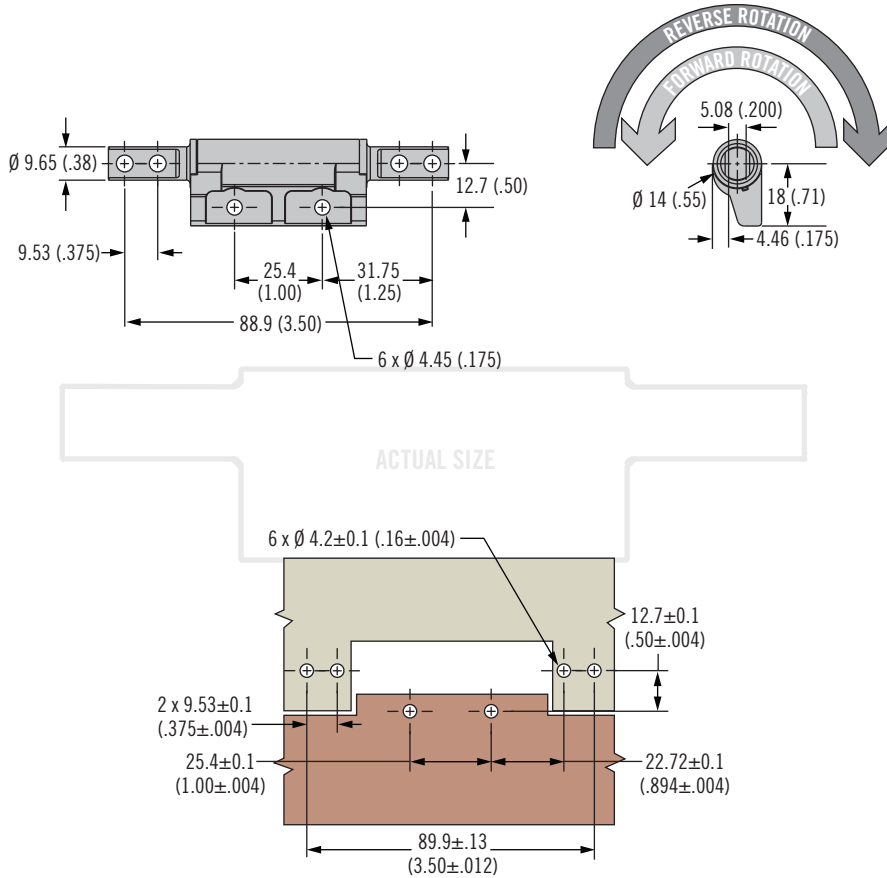
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Dimensions in millimeters (inch) unless otherwise stated

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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

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

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)

Part Number

See table



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

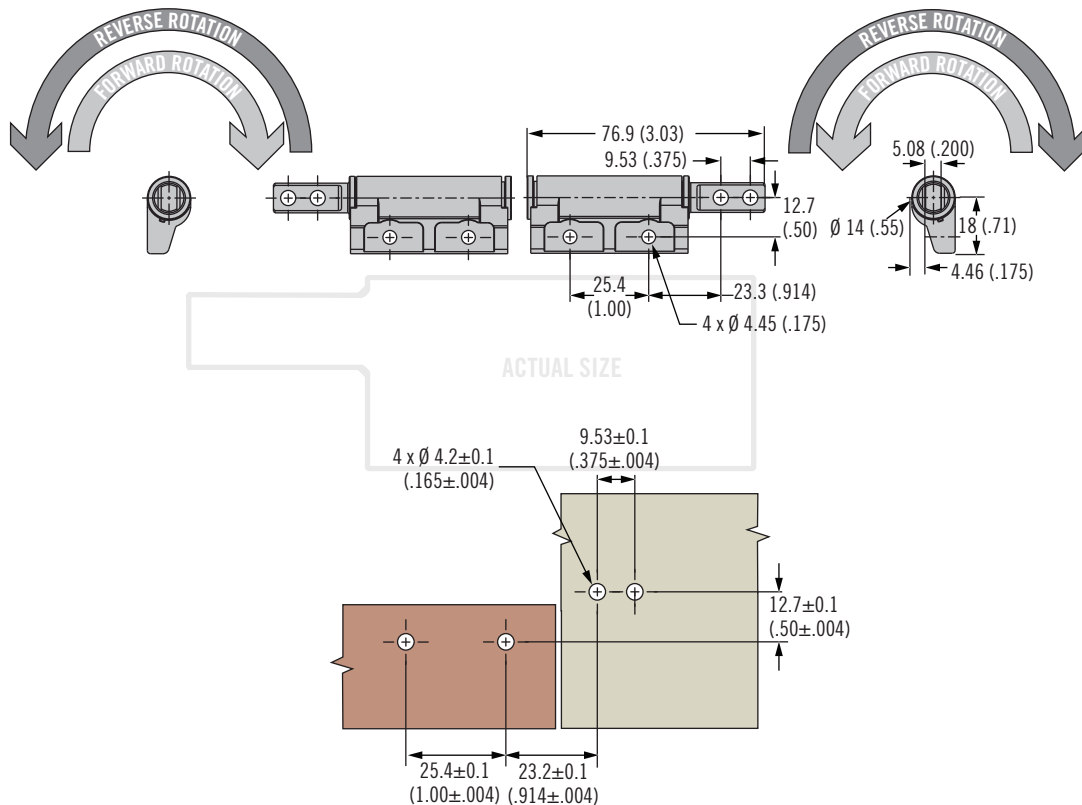
1. Install hinge using M4 (No. 8 socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

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)

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



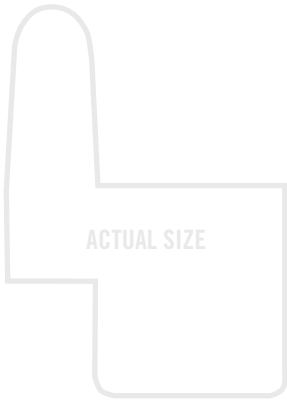
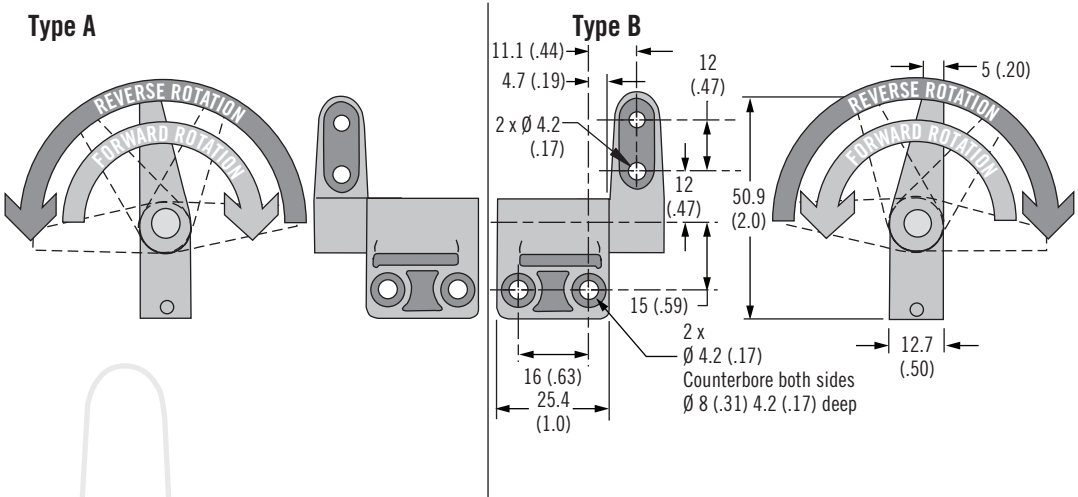
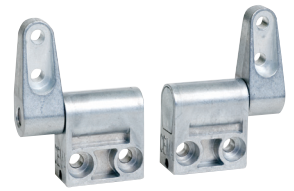
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Dimensions in millimeters (inch) unless otherwise stated

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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

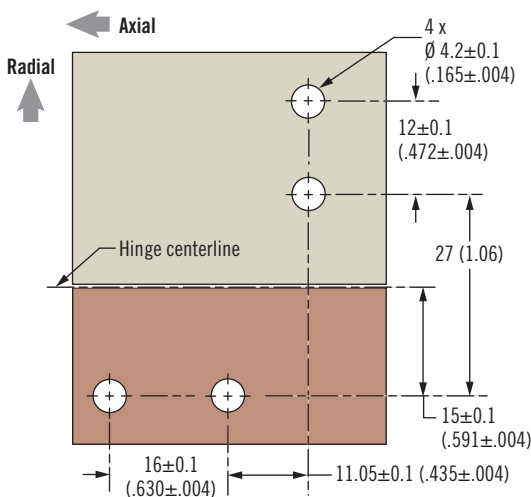
Installation Notes

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

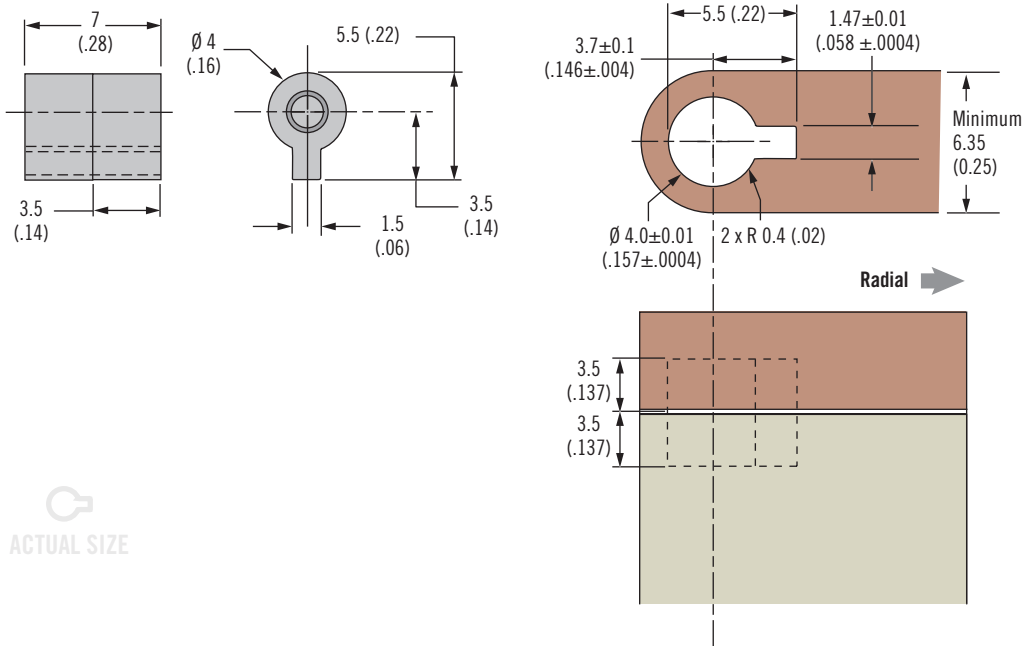
Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-12A-120SA-33	ST-12A-120SB-33	1.4 (12)
ST-12A-200SA-33	ST-12A-200SB-33	2.3 (20)
ST-12A-280SA-33	ST-12A-280SB-33	3.2 (28)
ST-12A-360SA-33	ST-12A-360SB-33	4.1 (36)



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 Hinge

Position control · Constant torque



 ACTUAL SIZE

- Smooth consistent operation
- Extremely compact, fits the smallest applications
- Never requires adjustment

Material and Finish

Aluminum, zinc alloy and steel, natural

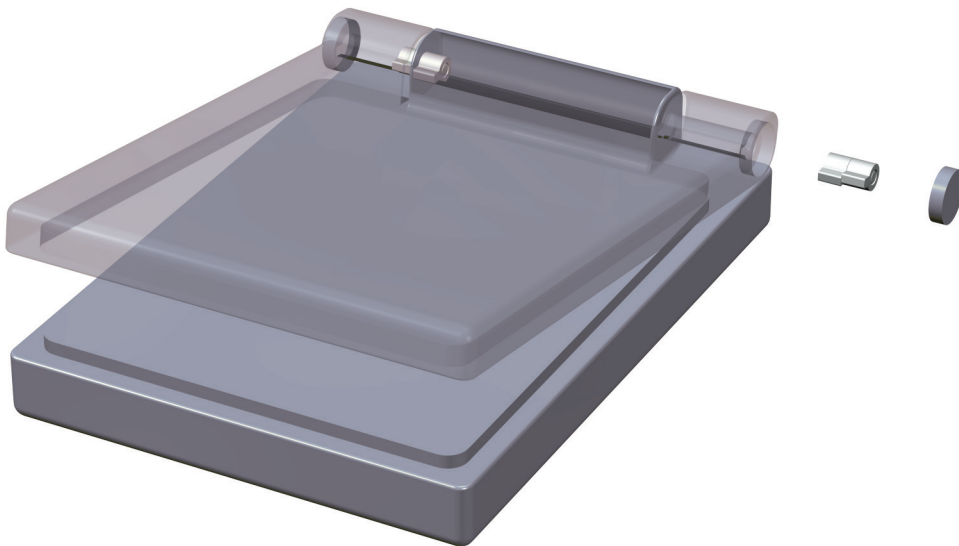
Performance Details

Radial load:

Maximum static load: 200 N (45 lbf)

Cycle performance:

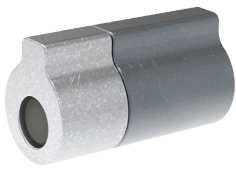
20,000 cycles within 0.023 N•m (.2 in•lbf) of static torque specification



Part Number	Static Torque
ST-4A-3S-33	0.034 N•m (.3 in•lbf)

Part Number

See table



ST-5A 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

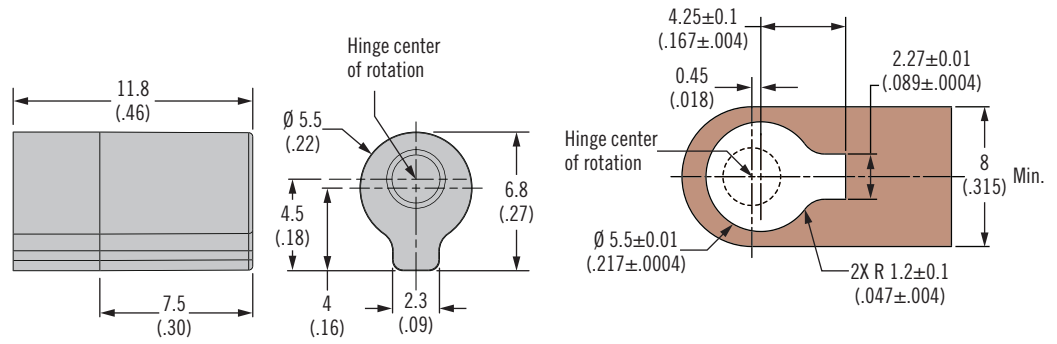
Performance Details

Radial load:

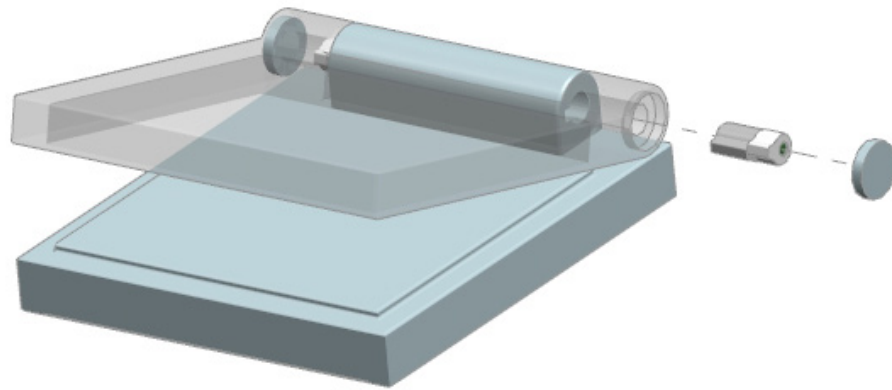
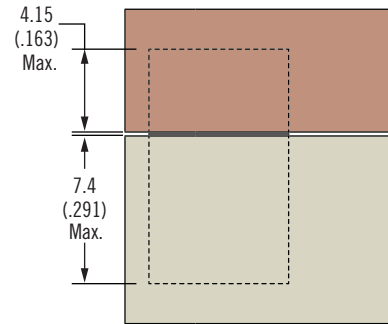
Maximum static load:
130 N (30 lbf)

Cycle performance:

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



ACTUAL SIZE



Part Number

See table

Part Number	Static Torque N·m (in·lbf)
ST-5A-10S-33	0.113 (1.0)
ST-5A-16S-33	0.181 (1.6)
ST-5A-23S-33	0.260 (2.3)
ST-5A-30S-33	0.339 (3.0)

