



## Hinges

Need to tilt or swivel a flat panel display to eliminate glare? Adjust a headrest for comfort? Position a keyboard angle for optimal ergonomics? Southco's range of hinges and positioning mechanisms go well beyond a simple hinge. Our extensive range of solutions for managing door and panel motion can bring new functionality and performance to any application.

Need to attach or remove a door without tools, hold it open or closed? Southco has a hinge solution for you. How strong a hinge do you need? With materials ranging from light-weight plastics to heavy-duty cast stainless steel, and a wide range of sizes and installation styles, Southco has a hinge sized to your application needs. Flush door, offset door, wood panel, or metal panel? We have a hinge style to fit most common door and frame configurations.

Don't see what you need? All of Southco's hinge solutions can be customized to suit the specific needs of individual applications.

Southco's broad line of external hinges provides an easy-to-install solution.

- ➔ External mounting maximizes available space inside the enclosure
- ➔ Wide range of mounting options to suit most door and frame configurations

## External Hinges



E6



G6



IV6



96



EH

*SOUTHCO*<sup>®</sup> embedded hinges can be designed-in to become an integral part of any application.

- ➔ Shapes and sizes designed specifically to allow easy packaging within the envelope of the application
- ➔ Mold-in or conceal with snap-on covers
- ➔ Seamlessly integrate position control features into any application

## Embedded Hinges



G7



ST



ST

*SOUTHCO*<sup>®</sup> concealed hinges are mounted inside the application, making the hinges invisible when the door is closed.

- ➔ Allow the application's industrial design goals to shine through
- ➔ Combine hidden mounting with simple installation

## Concealed Hinges



ST



F6



F6



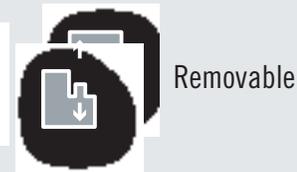
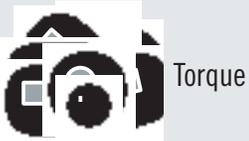
R6



# Hinges

## Selection guide

Use this selection guide to choose the right hinge for your application



HINGE SERIES		MATERIAL				
		Aluminum	Zinc	Steel	Stainless Steel	Plastic
EXTERNAL PAGES 326-363	E6 Constant Torque	✓	✓			
	ST 8 / 11		✓			
	ST 4 / 7 / 10 / 12	✓	✓			
	ST 8P / 11P	✓				
	E6 Adjustable Torque					✓
	C6 & G6					✓
	G7					✓
	96		✓	✓	✓	✓
	EH		✓			✓
	N6				✓	
	KH		✓			✓
	CONCEALED PAGES 364-371	F6			✓	✓
R6				✓	✓	



OPERATION				
Constant Torque 	Adjustable Torque 	Detent 	Free Operating	Removable 
✓			✓	
✓				
✓				
✓				
	✓		✓	
		✓	✓	
		✓		
			✓	✓
			✓	
			✓	
			✓	✓
			✓	✓
		✓	✓	



# Hinges

## Overview

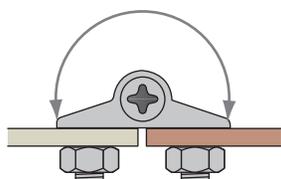
### Versatility and simplicity in action

Hinging requirements vary significantly for different construction methods and aesthetic goals. Use the guide below to find the right hinge for your application.

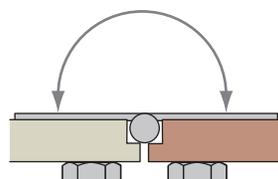
#### Application Styles

##### External Hinges

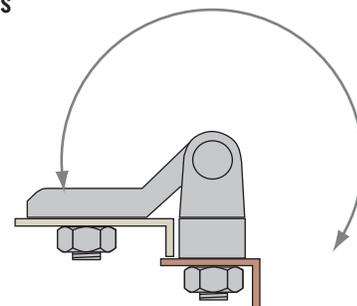
- A variety of styles and materials to complement all applications
- Maximize interior space within the application



Surface Mount



Flush Mount



Offset Mount



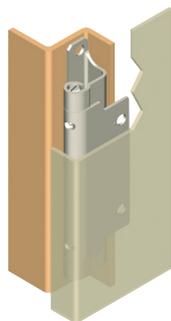
External



Concealed

##### Concealed Hinges

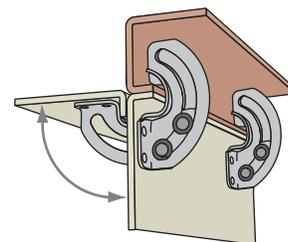
- Hidden to let you control the aesthetics
- Eliminate visible attack points for vandal resistance



C-Frame  
Concealed Pivot



End Mount  
Concealed Pivot



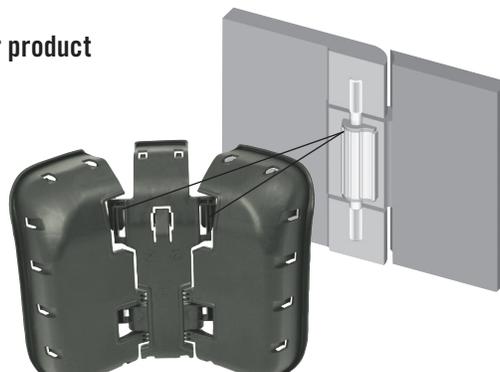
Virtual  
Pivot



Embedded

##### Embedded Hinges

- An integral part of the solution
- Add positioning features to enhance your product



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

[www.southco.com](http://www.southco.com)

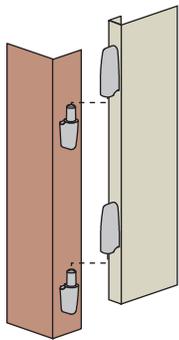


## Product Features

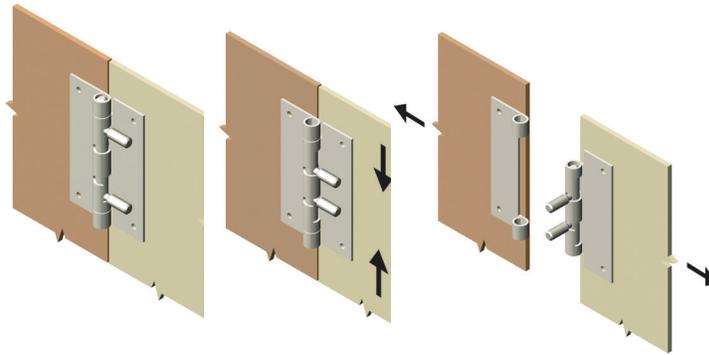
### Door Removal

- Removable hinges allow doors to be easily removed without tools
- Hinges with door removal feature assist the assembly, service and installation of doors

Southco offers two types of door removal hinges:



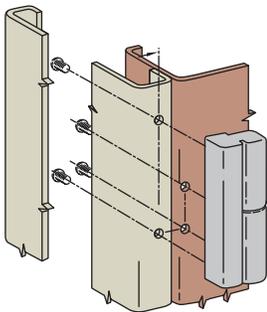
Lift-Off



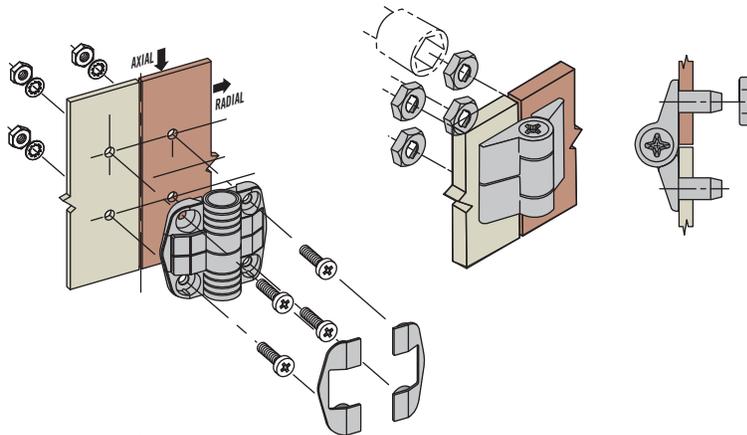
Removable / Retracting Pin

### Installation Method

- **SOUTHCO®** hinges offer a range of installation methods to suit the application construction

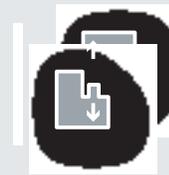


Tapped Hole / Rear  
Mount Hardware



Concealed  
Hardware

With Integrated  
Mounting Studs



Door Removal

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

[www.southco.com](http://www.southco.com)



# Hinges

## Overview

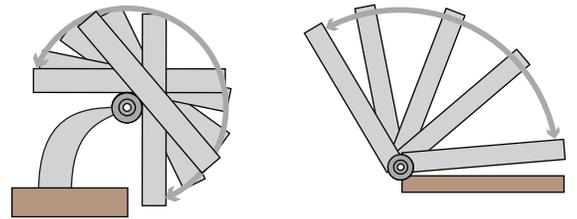
### Positioning Technology

Southco's wide range of solutions for controlling motion can be used to enhance functionality in almost any application. The range of solutions can be as simple as the integration of constant torque systems into a standard hinge, or as sophisticated as a fully customized system for positioning or deployment. Backed by Southco's reputation for engineered reliability, most positioning technology solutions have life-long performance with no requirement for maintenance or adjustment.

**SOUTHCO® position control hinges are available in various styles:**

#### Torque Hinges

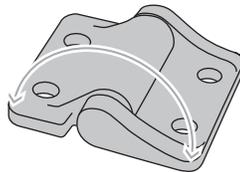
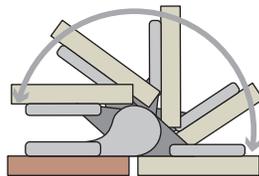
- Allow for infinitely variable positioning
- Holds securely at all positions



Torque

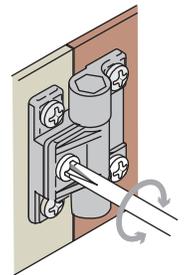
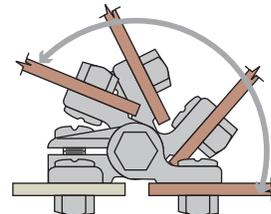
#### Constant Torque

- Pre-set at precise torque values
- Maximum reliability, with no need for adjustment



#### Adjustable Torque

- Allow end user customization



Detent

#### Detent / Bi-Stable Hinges

- Hold or seek a pre-defined position
- Can be used to hold door shut without a latch



#### Counterbalance & Stored Energy Hinges

- Enable heavy panels to operate with ease
- Allow panels to "pop open" when a latch is released



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

[www.southco.com](http://www.southco.com)

**ADE**  
Above Board Electronics, Inc.

Request Info



1-800-453-1692

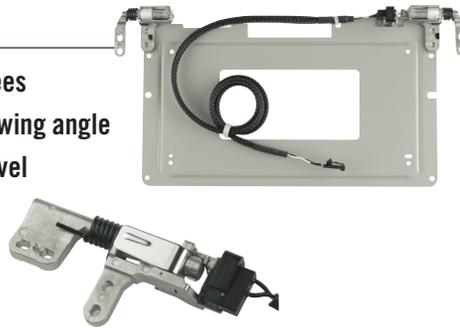
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

## Customized solutions

When the requirements of your application go beyond our standard product line, Southco's global engineering team is available to create a customized solution to meet your needs.

### Overhead infotainment deployment system

- Stored energy allows for self-opening to 20 degrees
- Constant torque provides infinitely adjustable viewing angle
- Detent click provides a signal to prevent over-travel
- Integrated display power switching



### Pop-up display screen

- Stored energy drives screen deployment
- Deploys vertically with controlled speed
- Constant torque allows for infinite positioning



### Tilt and swivel devices

- Safety feature activates display only when rear facing
- Constant torque provides multi-axis positioning
- Lock out device ensures correct folding sequence



### Integrated headrest assembly

- Integrated constant torque allows for consistent wing positioning
- High cycles allow for lifetime usage
- Complete comfort headrest frame



### Display mounts

- Integrated counterbalance allows for fingertip tilt, swivel and pan adjustment
- Structural design provides mechanical support and integrated cable management
- Adapted to suit challenges from home interiors to harsh service environments





# E6 Hinge

Position control · Constant torque

Dimensions in millimeters (inch) unless otherwise stated

- 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)

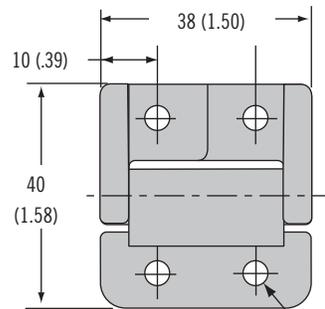
Average ultimate load:

1600 N (360 lbf)

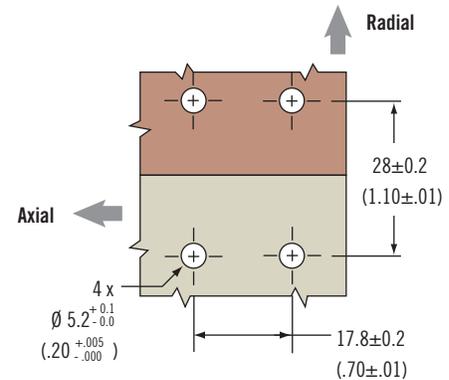
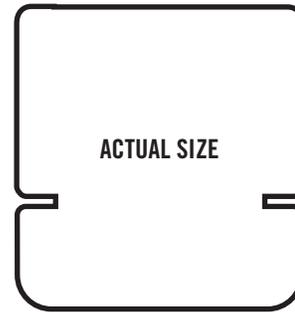
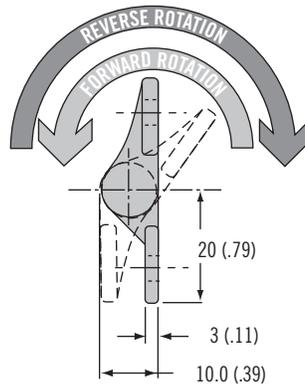
## Part Number

See table

## Medium



$\text{Ø } 4.5 (.18) \times 4$



## 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

[www.southco.com/E6](http://www.southco.com/E6)

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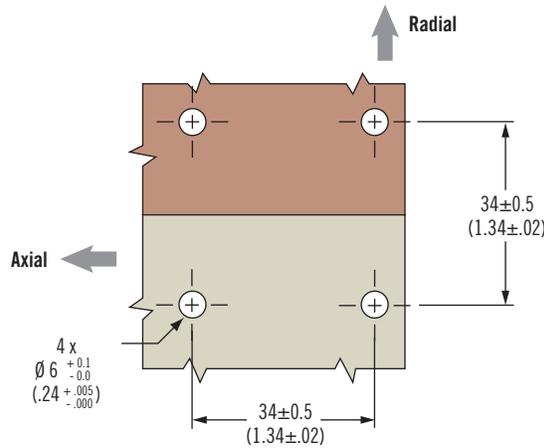
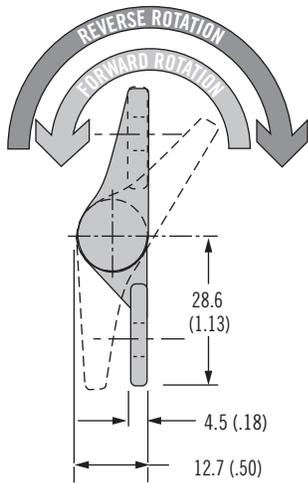
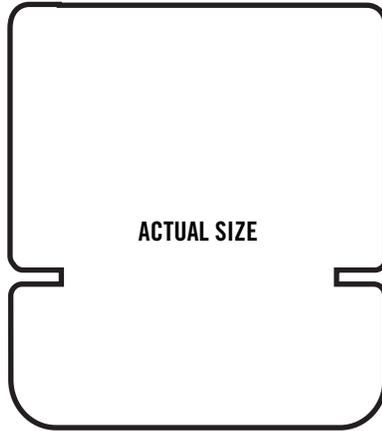
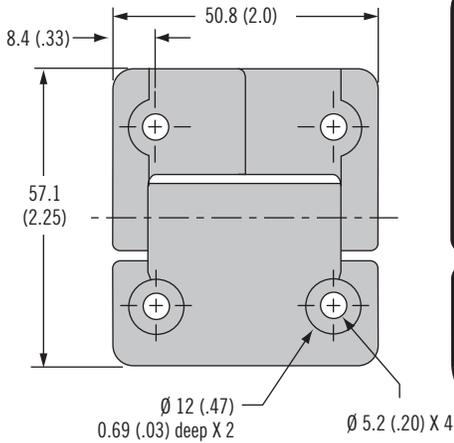
# E6 Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated

## 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

[www.southco.com/E6](http://www.southco.com/E6)





# 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: 12,800 N (2,875 lbf)

### Axial load:

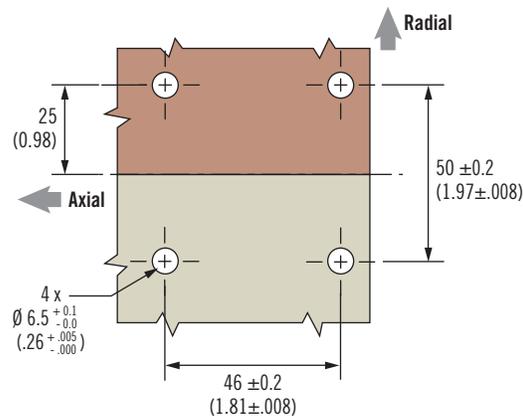
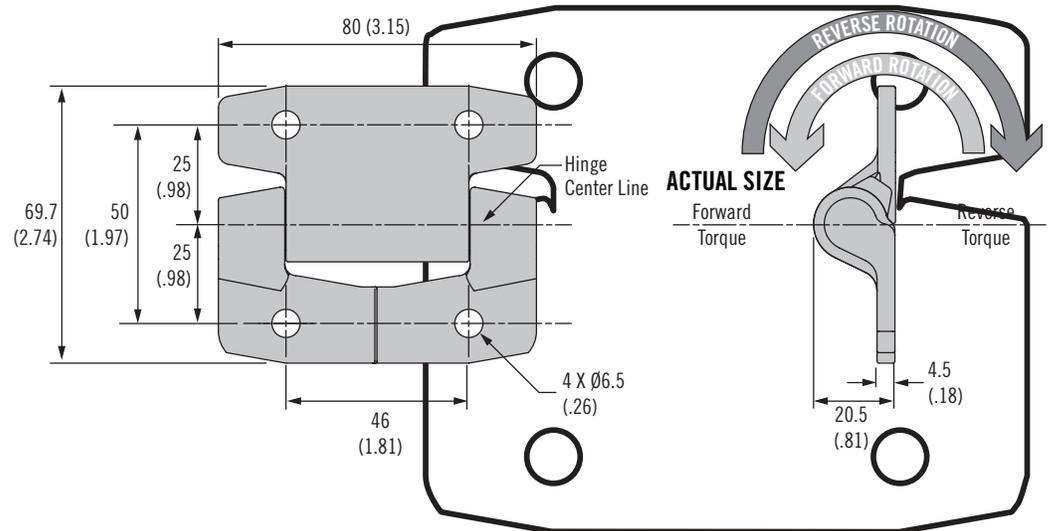
Max. static load: 500 N (110 lbf)

Average ultimate load: 10,800 N (2,425 lbf)

## Part Number

See table

Dimensions in millimeters (inch) unless otherwise stated



## 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)

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

[www.southco.com/E6](http://www.southco.com/E6)

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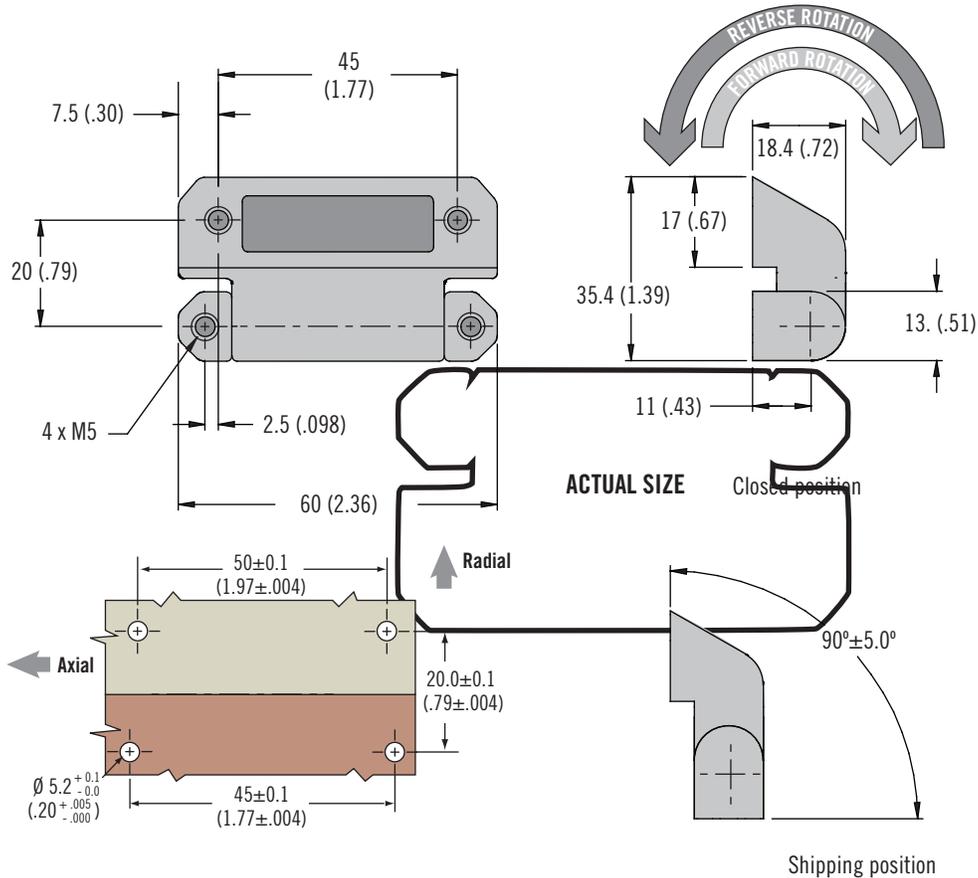
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# E6 Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated



## 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)

- 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

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

[www.southco.com/E6A](http://www.southco.com/E6A)





# 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)

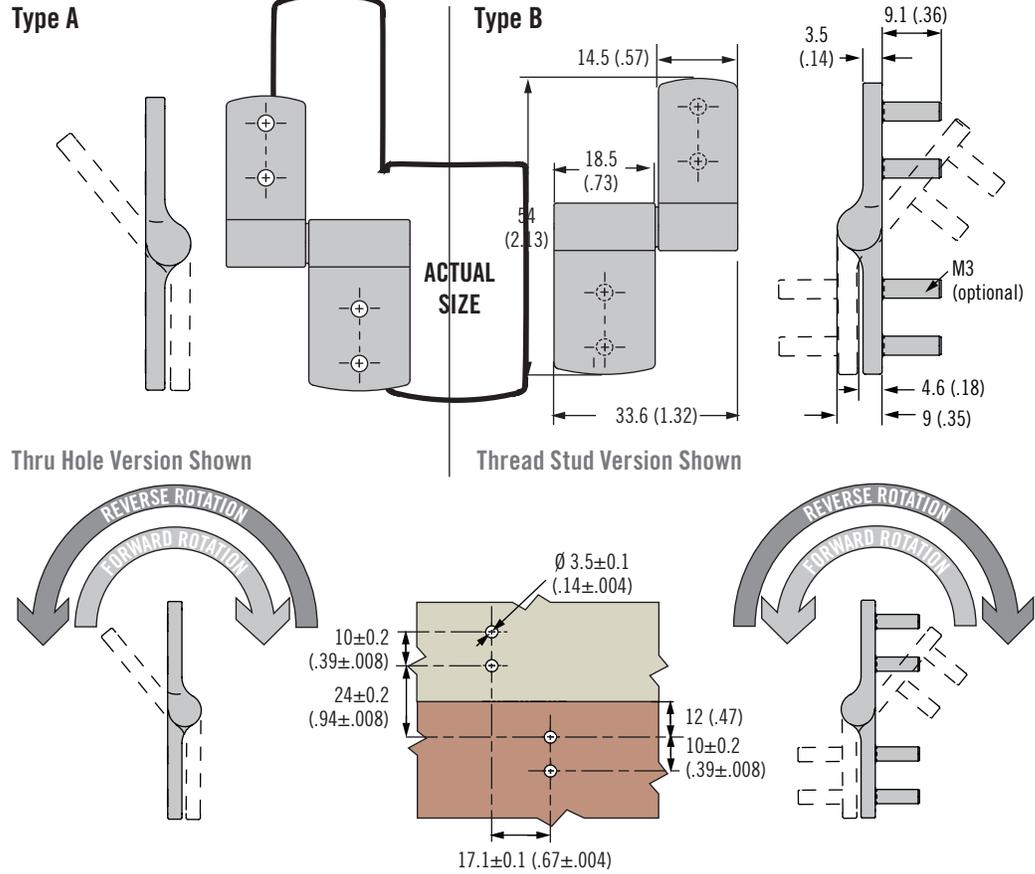
Thru hole install with M3 (No. 4) screws (not supplied)

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

### Part Number

See table

Dimensions in millimeters (inch) unless otherwise stated



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

[www.southco.com/ST1](http://www.southco.com/ST1)



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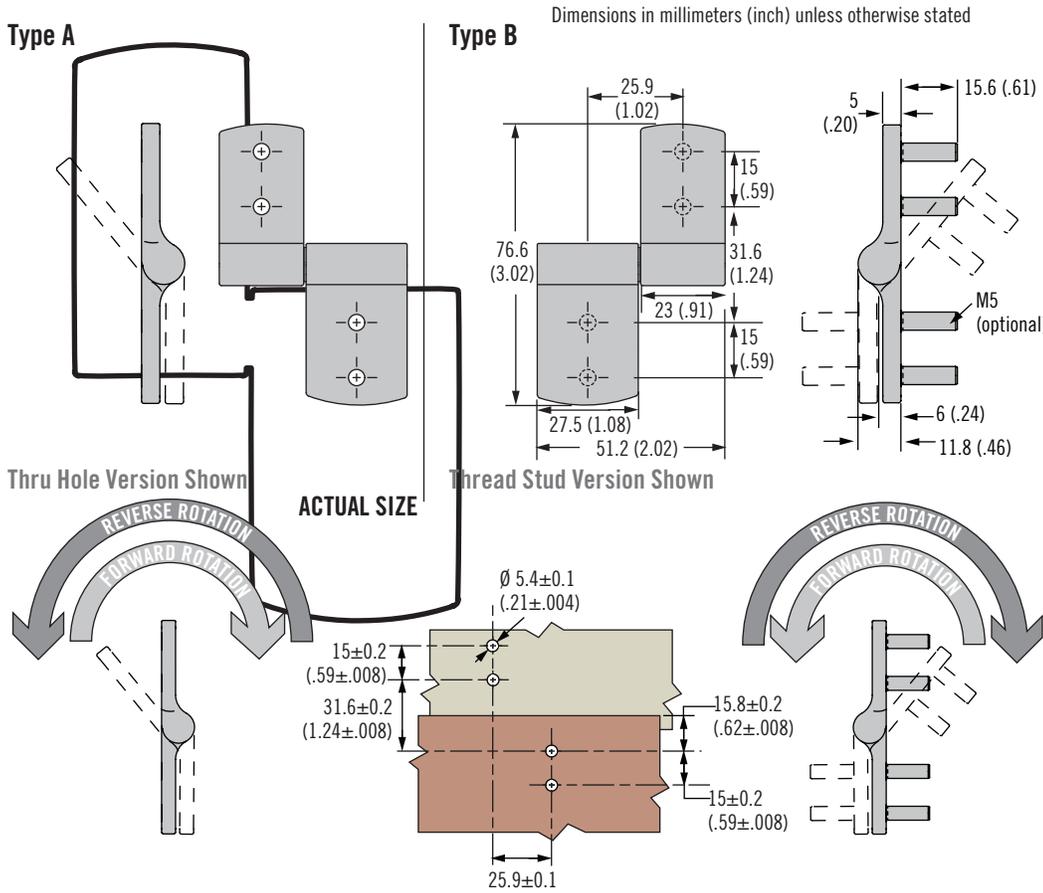


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[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# 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)

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





# ST-7A Hinge

Position control · Constant torque

Dimensions in millimeters (inch) unless otherwise stated

- 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)

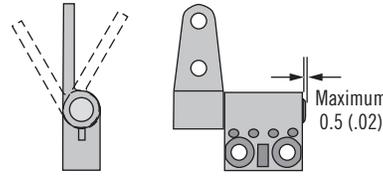
Cycle performance:

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

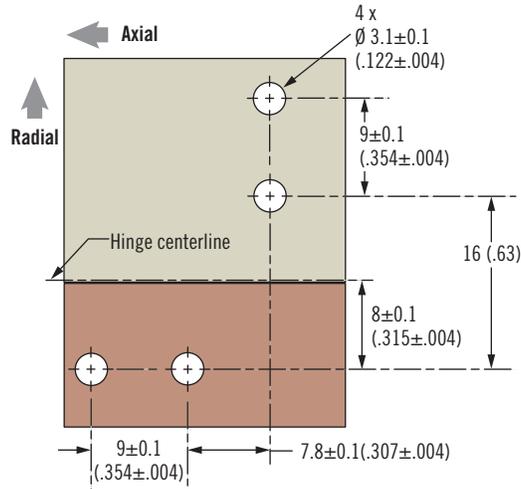
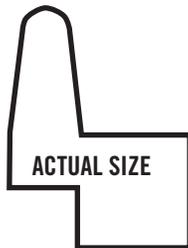
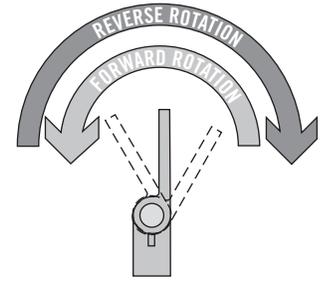
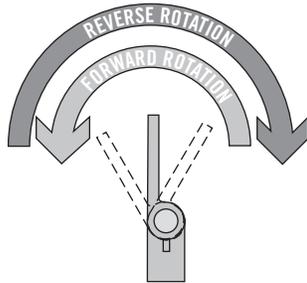
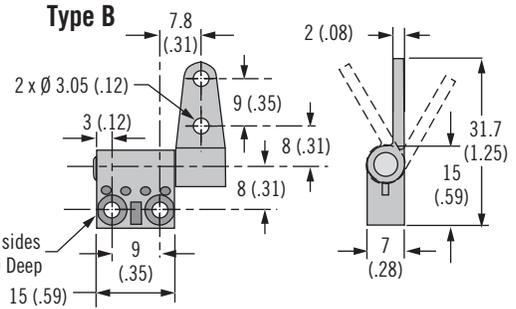
### Installation Notes

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.

### Type A



### Type B



### Part Number

See table

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

[www.southco.com/ST](http://www.southco.com/ST)



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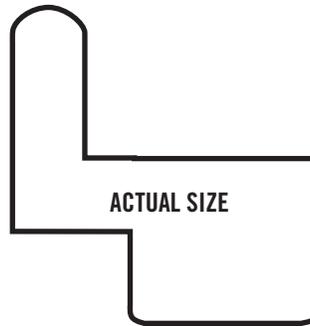
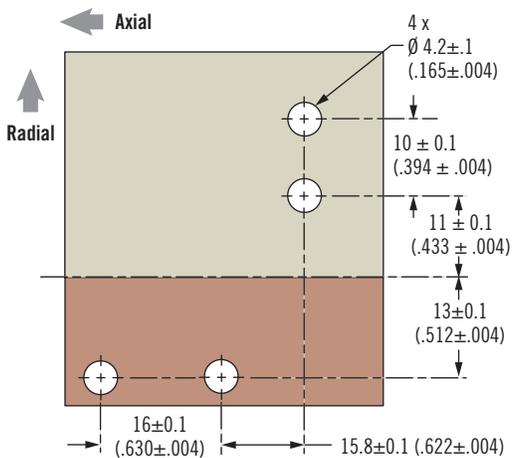
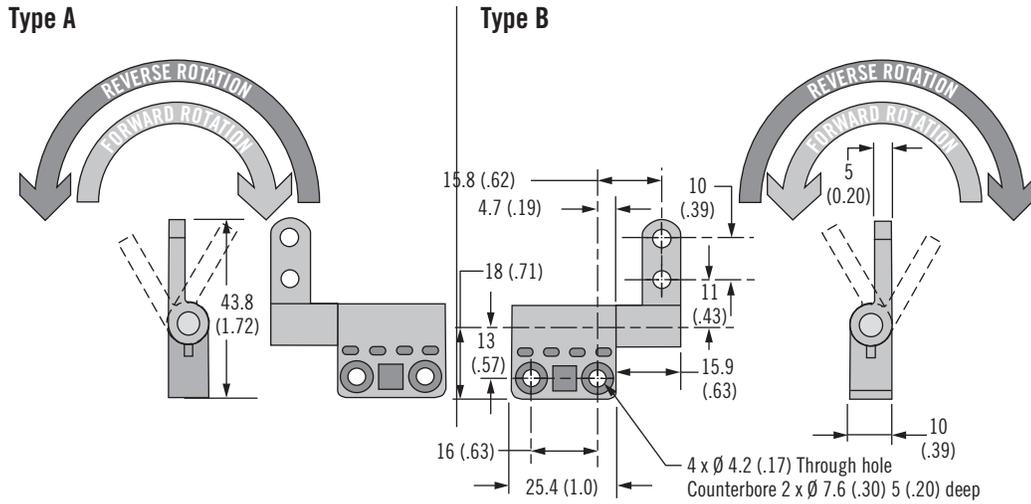
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# ST-10A Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated



- 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)

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

[www.southco.com/ST](http://www.southco.com/ST)





# 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

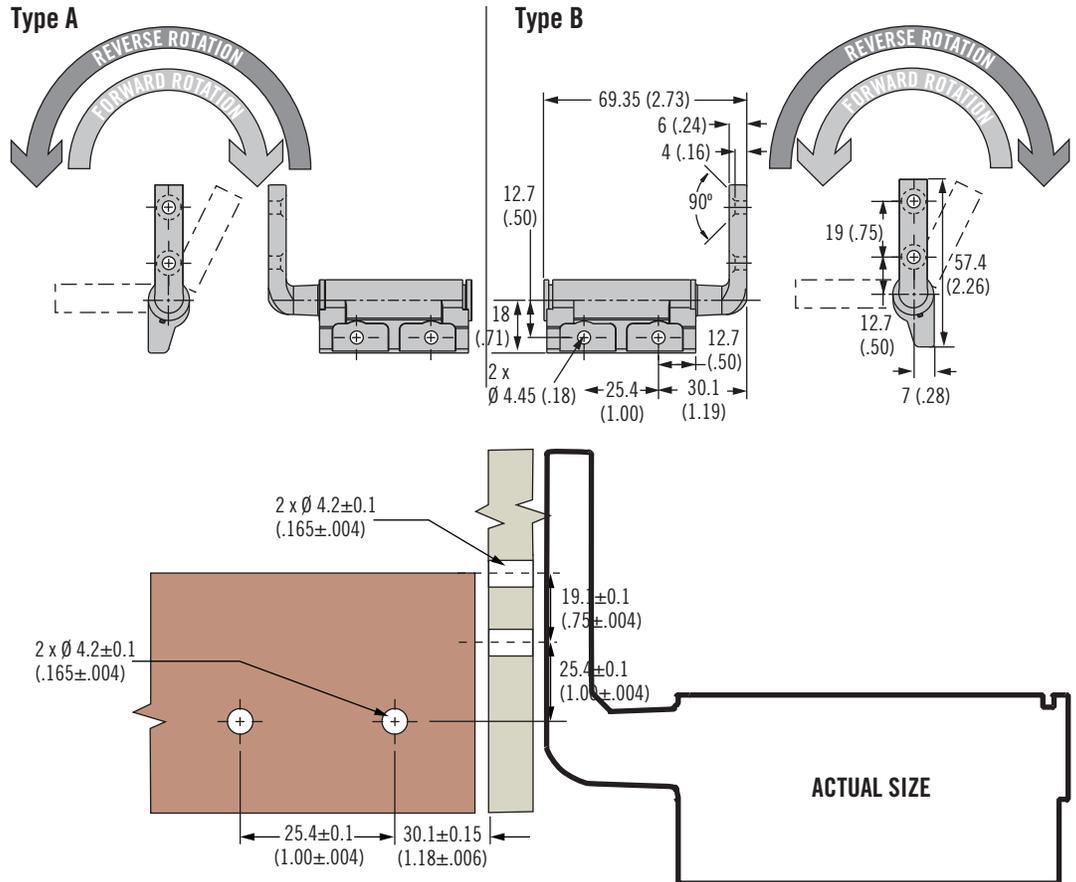
### Installation Notes

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

Dimensions in millimeters (inch) unless otherwise stated



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

[www.southco.com/ST](http://www.southco.com/ST)



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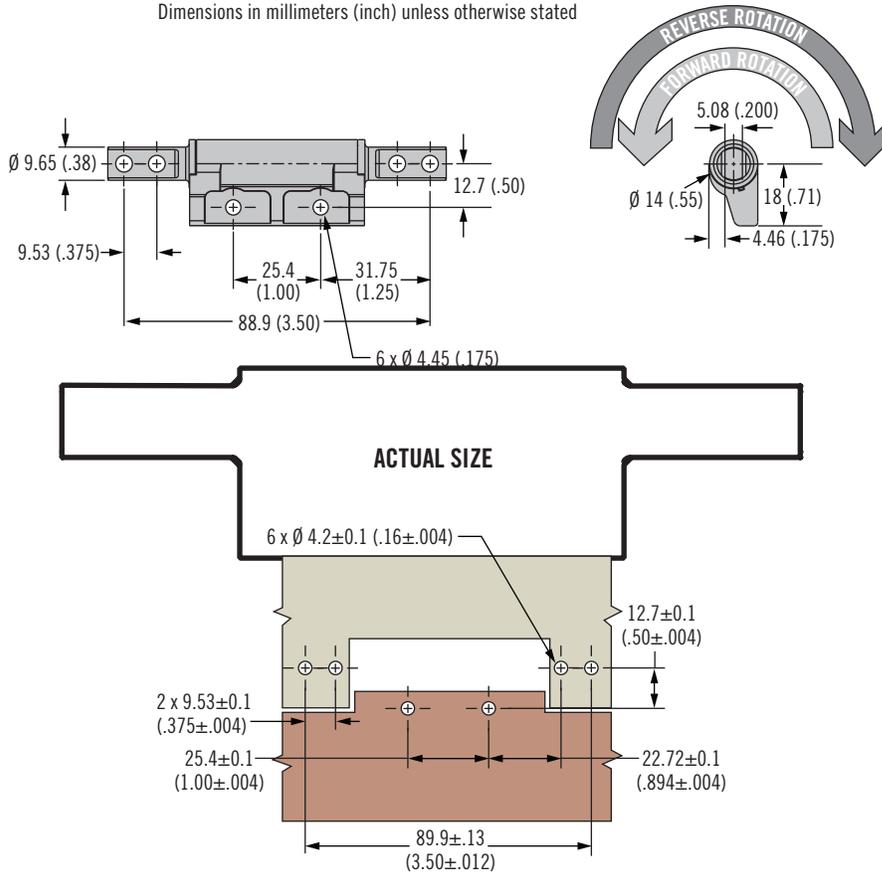
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# ST-10E Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated



- 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)

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

[www.southco.com/ST](http://www.southco.com/ST)





# 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

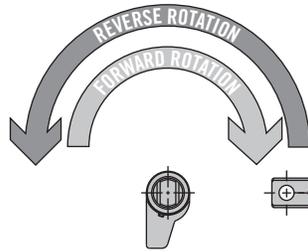
1. Install hinge using M4 (No. 8 socket head cap screw.
2. For proper function, assembly must include (1) type A and (1) type B hinge.

## Part Number

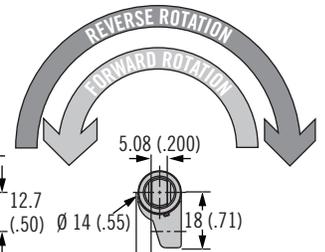
See table

Dimensions in millimeters (inch) unless otherwise stated

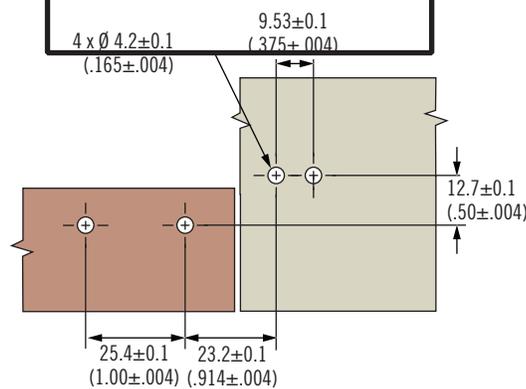
### Type A



### Type B



### ACTUAL SIZE



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

[www.southco.com/ST](http://www.southco.com/ST)

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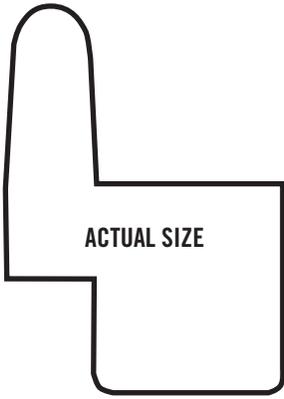
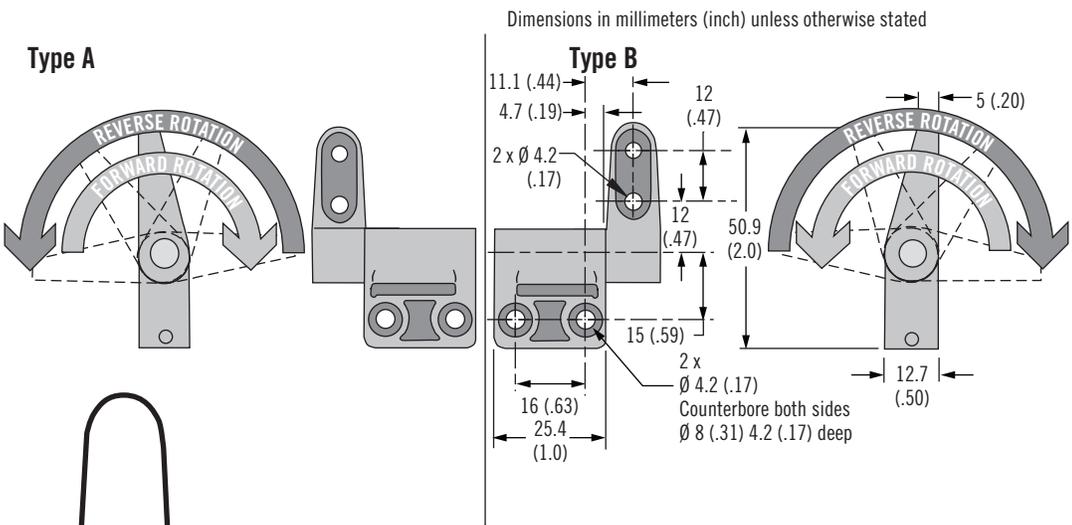


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# ST-12A Hinge

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:

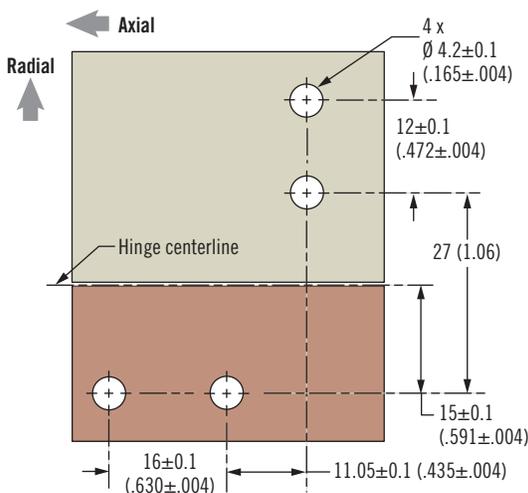
20,000 cycles within  $\pm 20\%$  of static torque specification

### 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

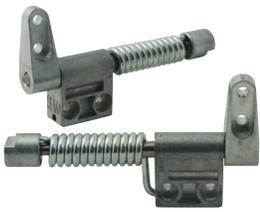
See table



Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-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)

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



# ST-12C Hinge

Position control · Constant torque · Counterbalanced

- Counterbalance spring allows easy opening
- 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)

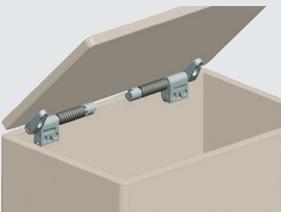
Cycle performance:

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

## Installation Notes

- Install hinge using M4 (No. 8) socket head cap screw.
- For proper function, assembly must include (1) type A and (1) type B hinge.
- Application must limit rotation  $\pm 90^\circ$  from shipping position.

## Application

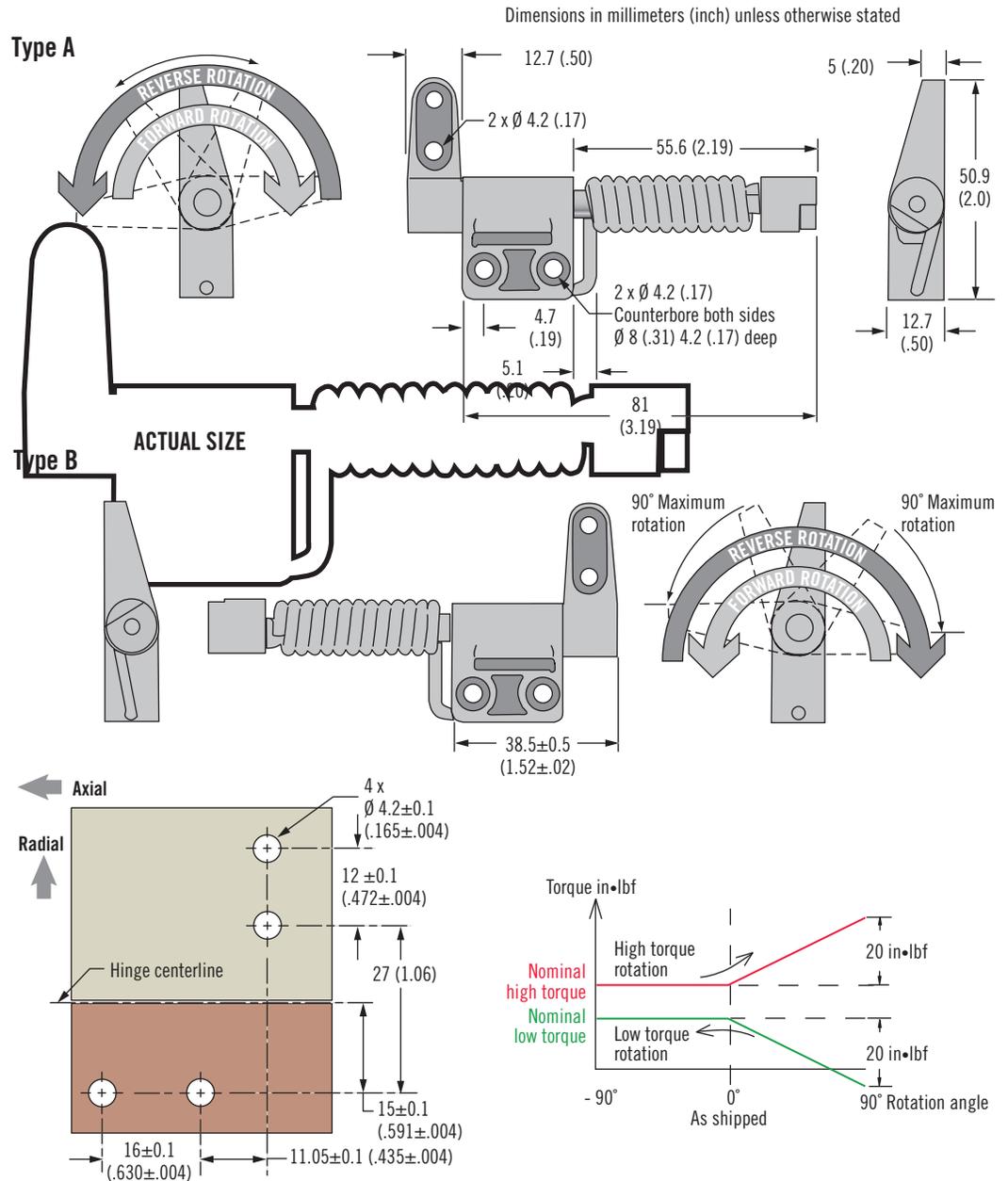


## Part Number

See table

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

[www.southco.com/ST3](http://www.southco.com/ST3)



Part Number		Static Torque N $\cdot$ m (in $\cdot$ lbf)	
Type A	Type B	Forward N $\cdot$ m (in $\cdot$ lbf)	Reverse N $\cdot$ m (in $\cdot$ lbf)
ST-12C-200FA1-33	ST-12C-200FB1-33	2.3 (20)	1.5 (13.6)
ST-12C-280FA1-33	ST-12C-280FB1-33	3.2 (28)	2.2 (19.1)
ST-12C-360FA1-33	ST-12C-360FB1-33	4.1 (36)	2.8 (24.6)
ST-12C-440FA1-33	ST-12C-440FB1-33	5 (44)	3.4 (30)
ST-12C-200RA1-33	ST-12C-200RB1-33	1.5 (13.6)	2.3 (20)
ST-12C-280RA1-33	ST-12C-280RB1-33	2.2 (19.1)	3.2 (28)
ST-12C-360RA1-33	ST-12C-360RB1-33	2.8 (24.6)	4.1 (36)
ST-12C-440RA1-33	ST-12C-440RB1-33	3.4 (30)	5 (44)

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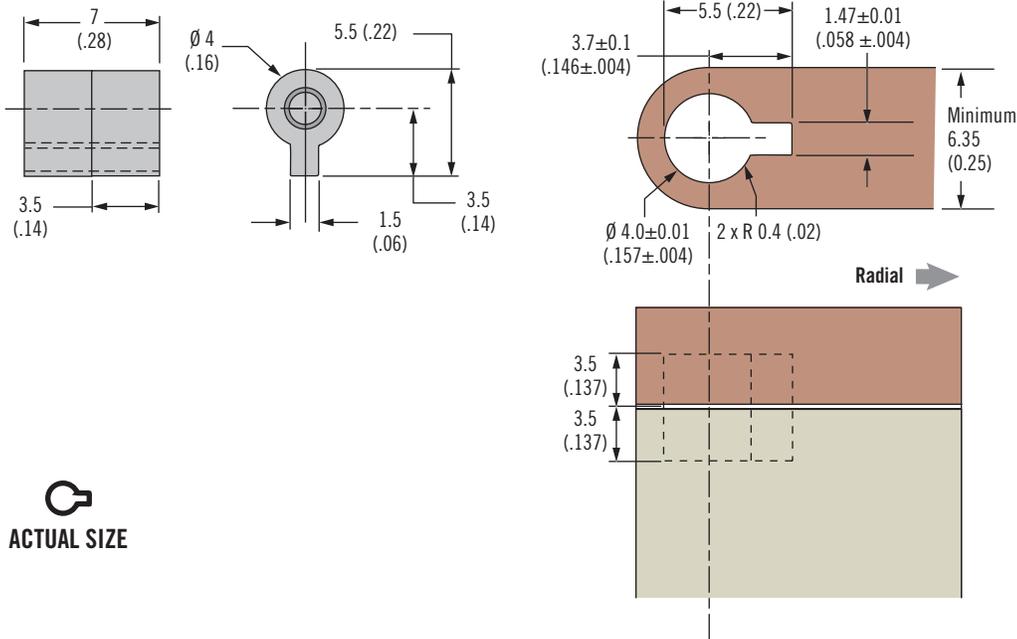
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# ST-4A Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated



 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-8P Hinge

Position control · Constant torque

- Designed for overmolding
- Brings constant torque performance to a wide range of applications
- Space efficient design provides high torque in minimum space
- Never requires adjustment

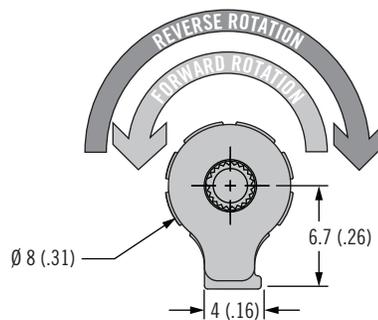
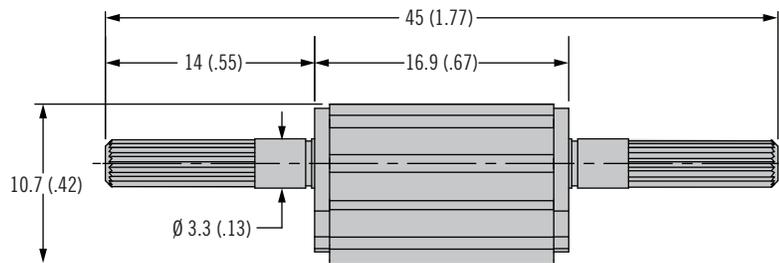
## Material and Finish

Aluminum, plastic and hardened steel

## Performance Details

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

Dimensions in millimeters (inch) unless otherwise stated



## Part Number

See table

Symmetric Torque Versions	
Part Number	Static Torque (Forward and Reverse) N·m (in·lbf)
ST-8P-40SA-50	0.45 (4)
ST-8P-60SA-50	0.68 (6)
ST-8P-80SA-50	0.9 (8)

Asymmetric Torque Versions		
Part Number	Static Torque N·m (in·lbf)	
	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-8P-40FA-50	0.45 (4.0)	0.27 (2.4)
ST-8P-60FA-50	0.68 (6.0)	0.41 (3.6)
ST-8P-80FA-50	0.90 (8.0)	0.54 (4.8)
ST-8P-100FA-50	1.13 (10.0)	0.68 (6)
ST-8P-40RA-50	0.27 (2.4)	0.45 (4)
ST-8P-60RA-50	0.41 (3.6)	0.68 (6)
ST-8P-80RA-50	0.54 (4.8)	0.9 (8)
ST-8P-100RA-50	0.68 (6.0)	1.13 (10)

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

[www.southco.com/ST2](http://www.southco.com/ST2)

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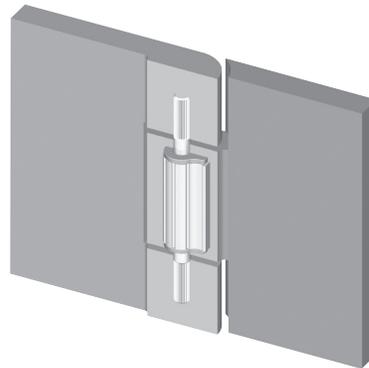
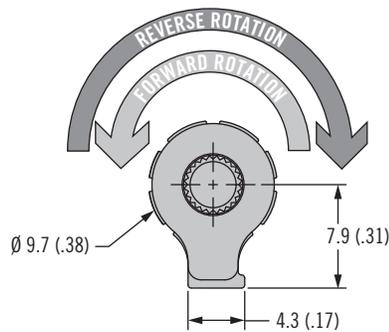
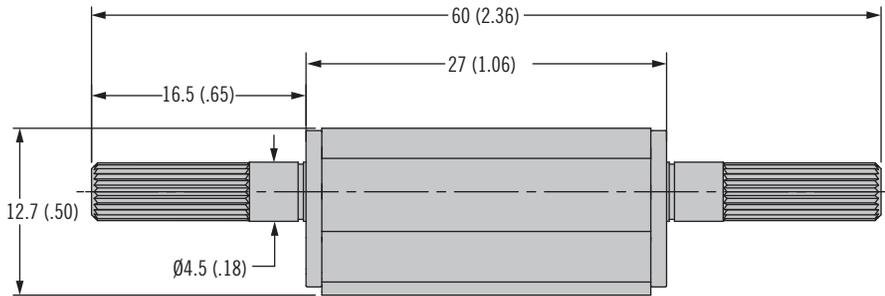
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# ST-11P Hinge

Position control · Constant torque



Dimensions in millimeters (inch) unless otherwise stated



- Designed for overmolding
- Brings constant torque performance to a wide range of applications
- Space efficient design provides high torque in minimum space
- Never requires adjustment

### Material and Finish

Aluminum, plastic and hardened steel

### Performance Details

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

### Part Number

See table

Symmetric Torque Versions	
Part Number	Static Torque (Forward and Reverse) N·m (in·lbf)
ST-11P-140SA-50	1.58 (14)
ST-11P-200SA-50	2.26 (20)
ST-11P-260SA-50	2.9 (26)

Asymmetric Torque Versions		
Part Number	Static Torque N·m (in·lbf)	
	Forward N·m (in·lbf)	Reverse N·m (in·lbf)
ST-11P-140FA-50	1.58 (14)	0.95 (8.4)
ST-11P-200FA-50	2.26 (20)	1.36 (12)
ST-11P-260FA-50	2.94 (26)	1.76 (15.6)
ST-11P-320FA-50	3.62 (32)	2.17 (19.2)
ST-11P-140RA-50	0.95 (8.4)	1.58 (14)
ST-11P-200RA-50	1.36 (12)	2.26 (20)
ST-11P-260RA-50	1.76 (15.6)	2.94 (26)
ST-11P-320RA-50	2.17 (19.2)	3.62 (32)

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

[www.southco.com/ST2](http://www.southco.com/ST2)





# E6 Hinge

Position control · Adjustable torque

- Hold doors open, in position
- User-adjusted holding torque

## Material and Finish

Leaves: Acetal  
 Pin: Polycarbonate  
 Adjustment screw & nut:  
 Stainless steel

## Performance Details

Radial load:  
 Large: 3110 N (700 lbf)  
 Medium: 1780 N (400 lbf)

Axial load:  
 Large: 2000 N (450 lbf)  
 Medium: 890 N (200 lbf)

Maximum prevailing torque of hinge:  
 Large: 4 N·m (35 in·lbf)  
 Medium: 0.8 N·m (7 in·lbf)

Operating temperature range:  
 -5°C (20°F) to 65°C (150°F)

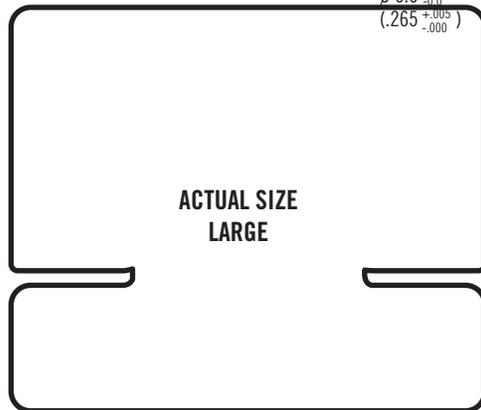
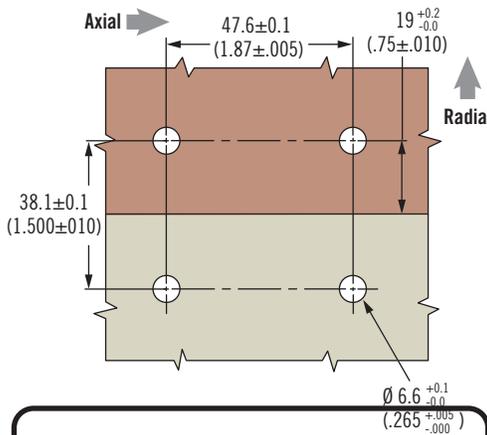
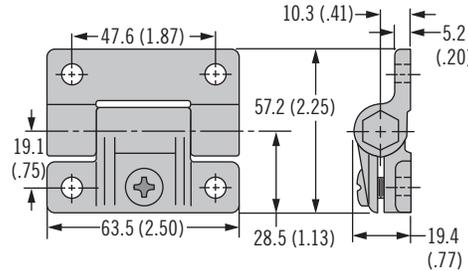
## Installation Notes

Mount with:  
 Large: M6 (1/4-20)  
 Medium: M4 (8-32)  
 (screws not supplied)

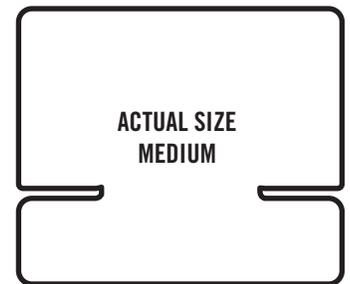
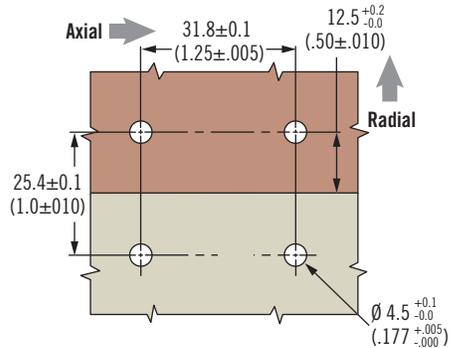
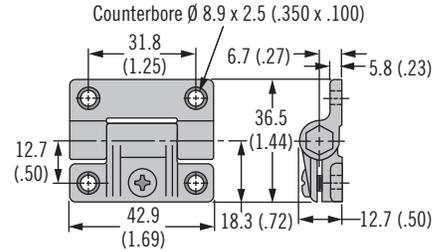
## Part Number

See table

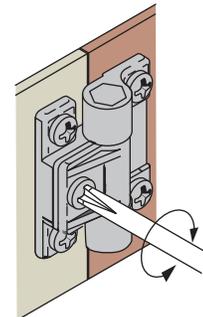
### Large



### Medium



## Torque Adjustment



Part Number		
Color	Large	Medium
Black	E6-10-501-20	E6-10-301-20
White	E6-10-501-10	E6-10-301-10

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

[www.southco.com/E6](http://www.southco.com/E6)



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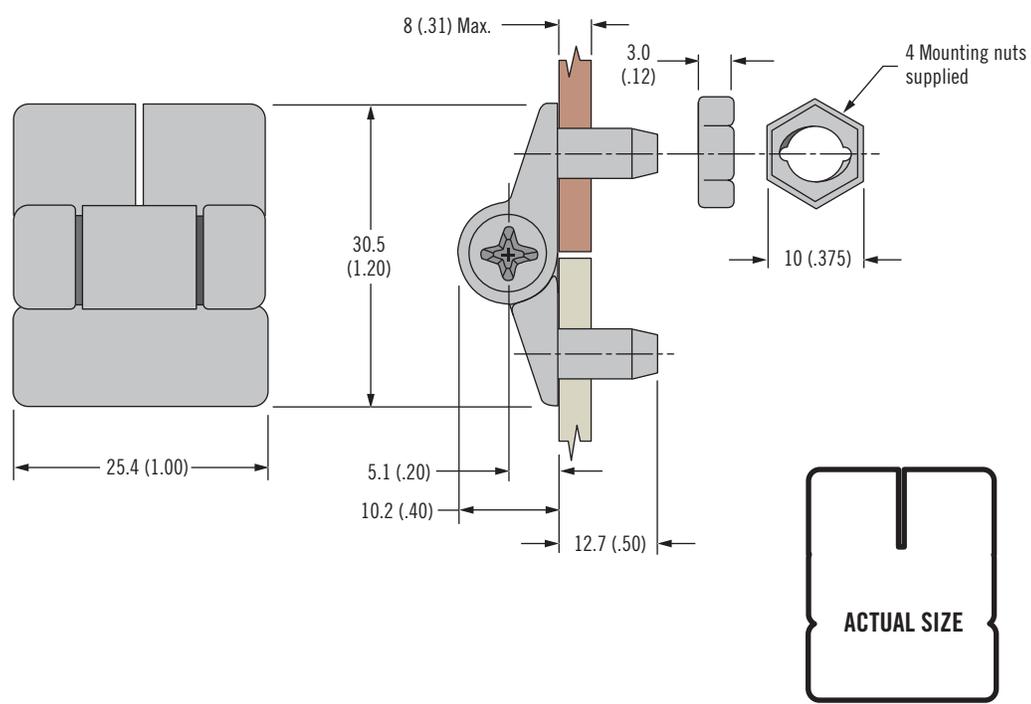
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# E6 Hinge

Position control · Adjustable torque



Dimensions in millimeters (inch) unless otherwise stated



- Hold doors open, in position
- User-adjusted holding torque

### Material and Finish

Acetal, nylon  
 Mounting hardware:  
 Steel, zinc plated

### Performance Details

Radial load:  
 Average ultimate load:  
 1150 N (260 lbf)

Axial load:  
 Average ultimate load:  
 950 N (214 lbf)

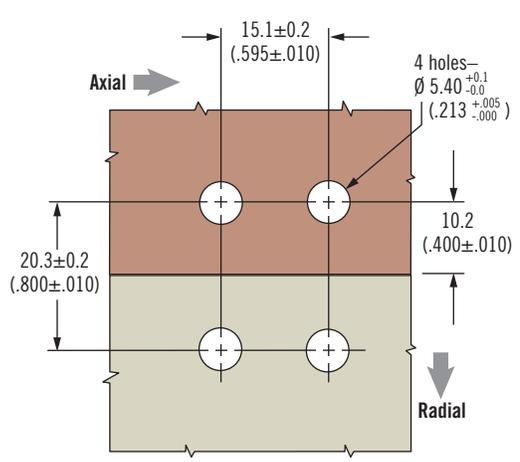
Maximum prevailing torque of hinge:  
 0.25 N·m (2.2 in·lbf)

Operating temperature range:  
 -5°C (-20°F) to 65°C (150°F)

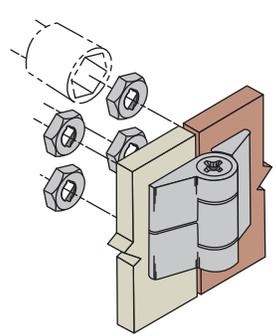
### Notes

Packaging: One hinge and four mounting nuts per bag

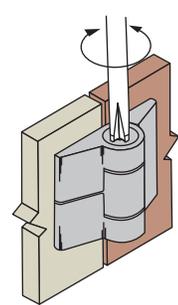
### 1. Prepare door and frame



### 2. Mount



### 3. Adjust torque



Color	Part Number
Black	E6-10-101-20
White	E6-10-101-30

### Part Number

See table

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

[www.southco.com/E6](http://www.southco.com/E6)





# G6 Hinge

Position control · Detent

- Holds doors open without secondary mechanical support
- Detent holds door at 120° and 170°
- Can be opened to 180°

## Material and Finish

Acetal and nylon, black

## Performance Details

Radial load:

Maximum static load: 130 N (30 lbf)

Average ultimate load:

970 N (220 lbf)

Axial load:

Maximum static load: 130 N (30 lbf)

Average ultimate load:

1450 N (325 lbf)

Cycle life: 10,000 cycles

Operating temperature range:

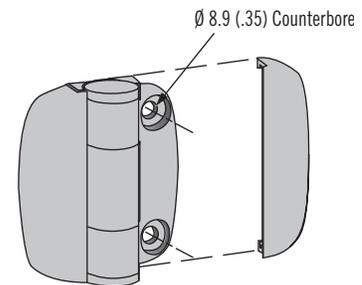
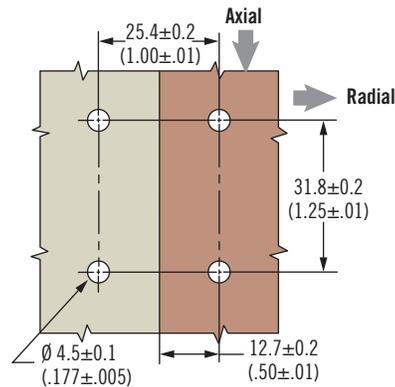
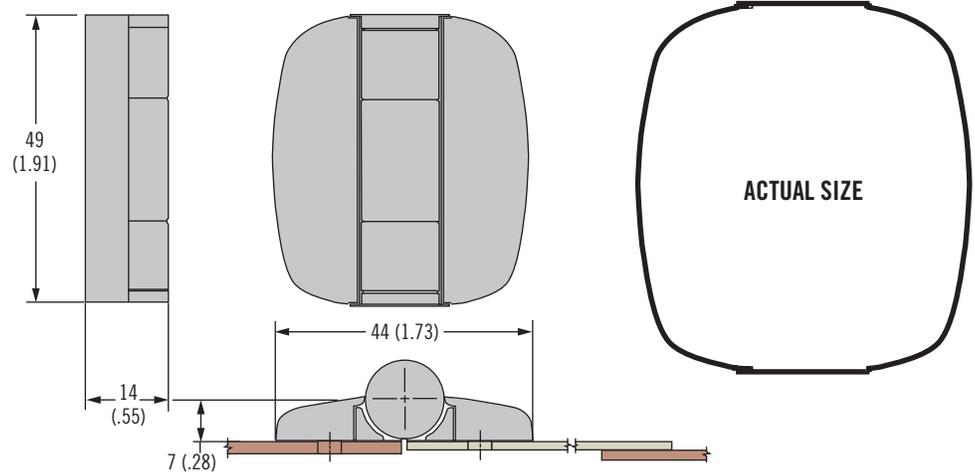
-20 °C (0° F) to 80° C (180° F)

## Installation Notes

Screws not supplied

Hinge designed to accommodate M4 (No. 8) size Pan Head mounting hardware.

Dimensions in millimeters (inch) unless otherwise stated



## Part Number

See table

Part Number	Detent Angle	Positioning Torque
G6-0-1	<p>Free swinging (no detents)</p>	~
G6-5-1		1.1 N·m (10 in·lbf)

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

[www.southco.com/G6](http://www.southco.com/G6)

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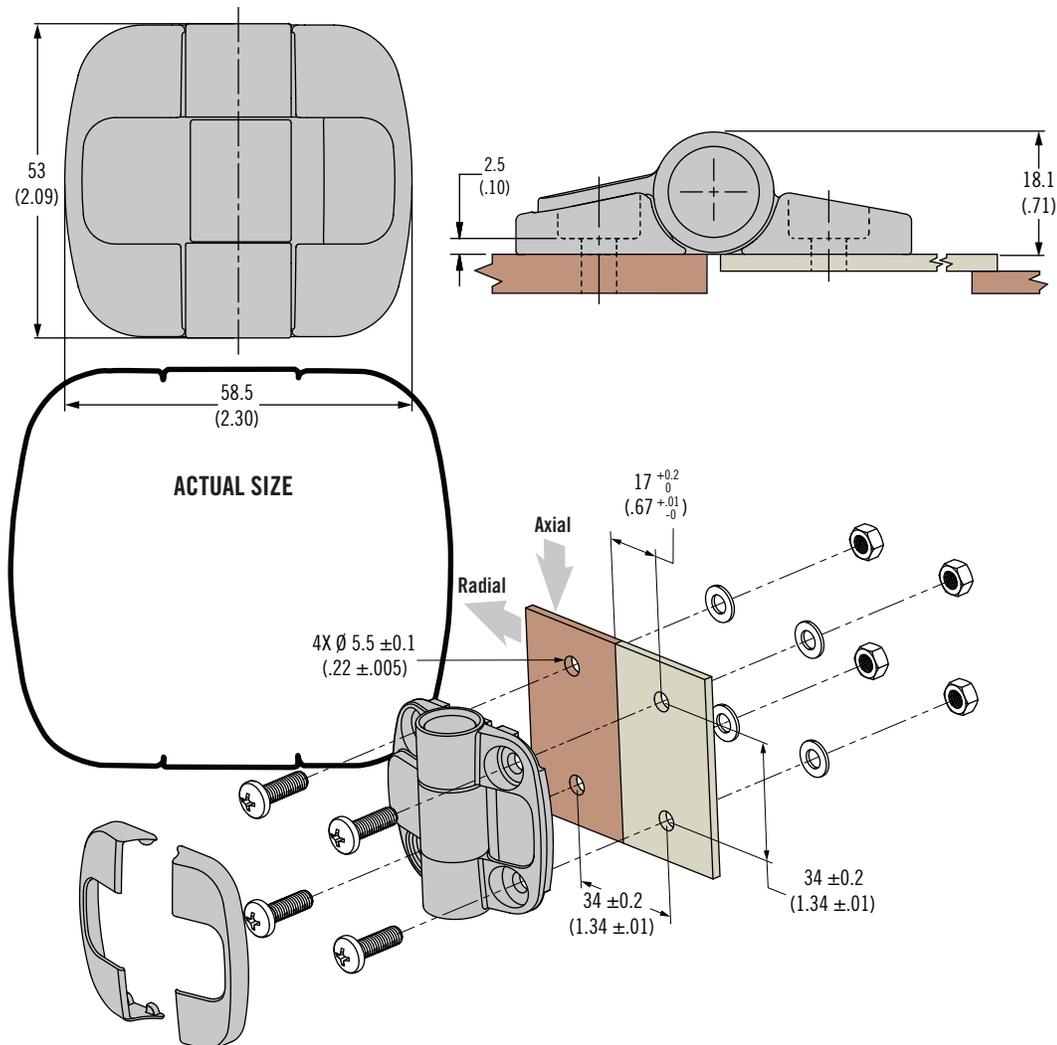
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# C6 Hinge

Position control · Detent



Dimensions in millimeters (inch) unless otherwise stated



- Holds doors open without secondary mechanical support
- Detents holds door at 80°, 115° or 150°
- All versions can be further opened to 180°

### Material and Finish

Acetal, black  
Internal components:  
Stainless steel

### Performance Details

Radial load:  
Maximum static load:  
450 N (100 lbf)  
Average ultimate load:  
2600 N (575 lbf)

Axial load:  
Maximum static load:  
450 N (100 lbf)  
Average ultimate load:  
1800 N (400 lbf)

Cycle life: Up to 20,000

Operating temperature range:  
-40°C (-40°F) to 80°C (180°F)

### Installation Notes

Mounting hardware not supplied.  
Designed to accommodate M5 (No. 10) mounting hardware with a maximum head diameter of 10.1 (.40) and a maximum head height of 3 (.12).

### Part Number

See table

Type	Positioning Torque N•m (in•lbf)	Part Number
 No Detents	Free operating	C6-220
 80 Degree	0.7 (6)	C6-221
	1.1 (10)	C6-222
	1.7 (15)	C6-223
 115 Degree	0.7 (6)	C6-224
	1.1 (10)	C6-225
	1.7 (15)	C6-226
 150 Degree	0.7 (6)	C6-227
	1.1 (10)	C6-228
	1.7 (15)	C6-229





## G7 Hinge

### Bi-stable

- Automatically drives to one of two preferred positions
- Invisible when installed

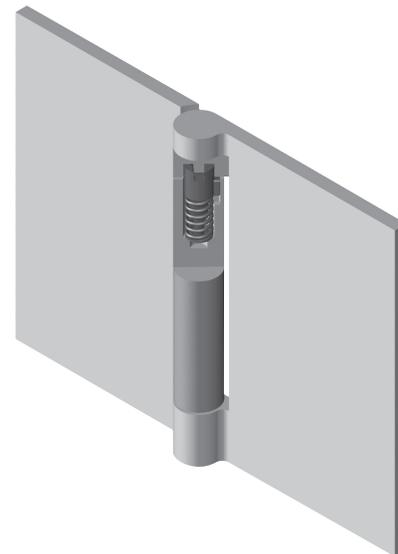
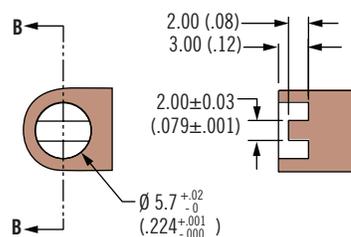
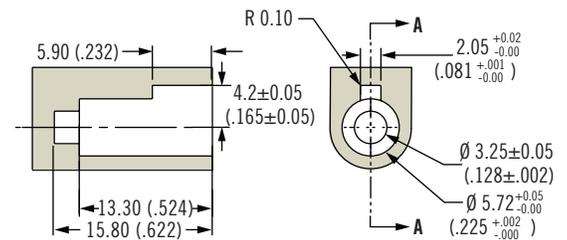
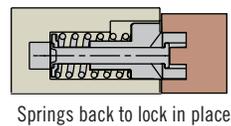
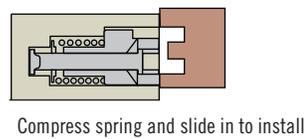
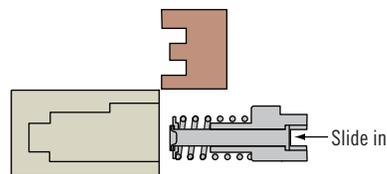
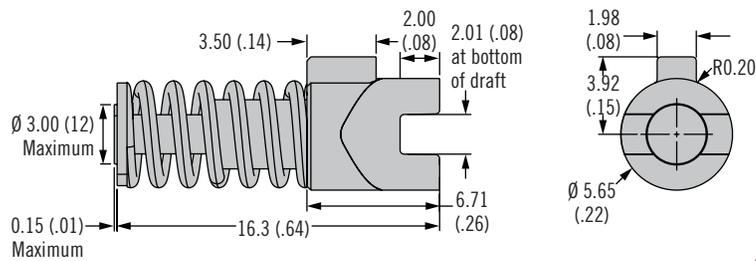
#### Material and Finish

Acetal black, steel, zinc plated

#### Performance Details

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

Dimensions in millimeters (inch) unless otherwise stated



#### Part Number

See table

Part Number	Maximum Torque N·m (in·lbf)
G7-6A-3P-1	0.035 (.3)

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

[www.southco.com/G7](http://www.southco.com/G7)

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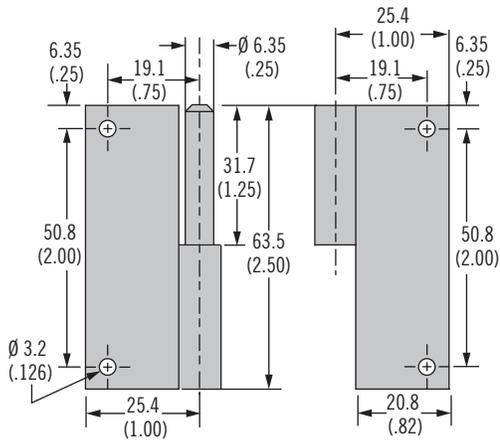
[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

# 96 Hinge Lift-off

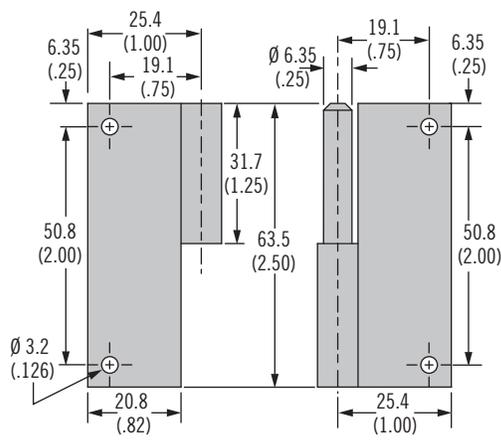


Dimensions in millimeters (inch) unless otherwise stated

### Type A



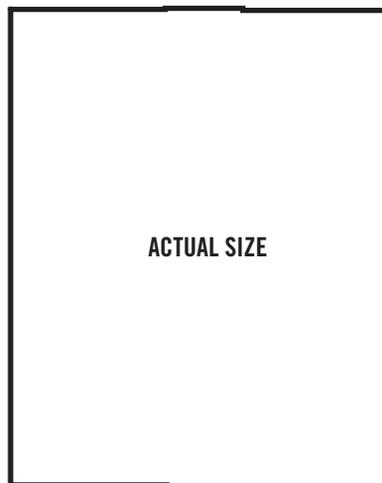
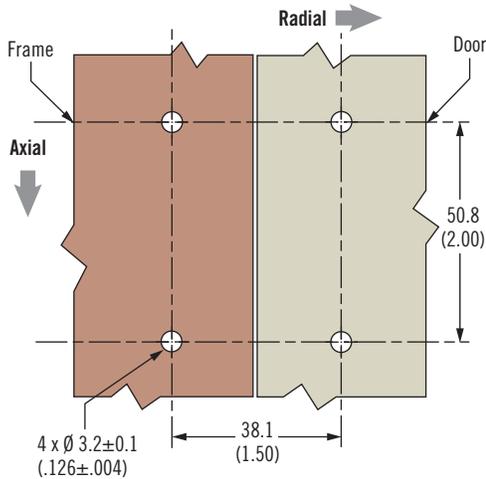
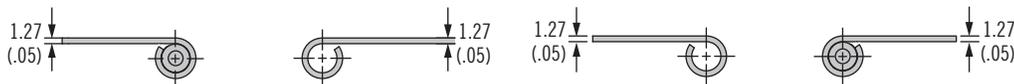
### Type B



- Allows for quick, easy door removal
- All metal construction

### Material and Finish

Steel, zinc plated or stainless steel



Type "A" application shown

Material	Part Number	
	Type A	Type B
Steel	96-04-N1WL	96-04-N1WR
Stainless Steel	96-04-S1WL	96-04-S1WR

### Part Number

See table

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

[www.southco.com/96A](http://www.southco.com/96A)





# 96 Hinge

Lift-off · In-line · Zinc

- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Zinc alloy, black powder coated

### Performance Details

	Radial Load	Axial Load
Maximum static load	1300 N (300 lbf)	2200 N (500 lbf)
Average ultimate load	3300 N (750 lbf)	9300 N (2100 lbf)

### Installation Notes

Screws not supplied.

Maximum tightening torque of screw: 8.5 N·m (75 in·lbf)

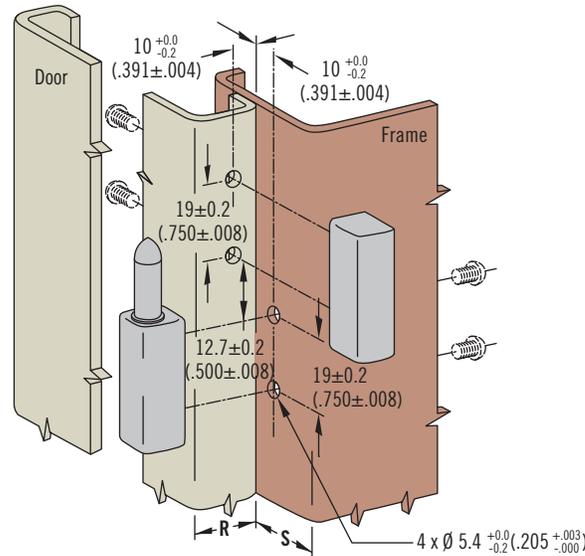
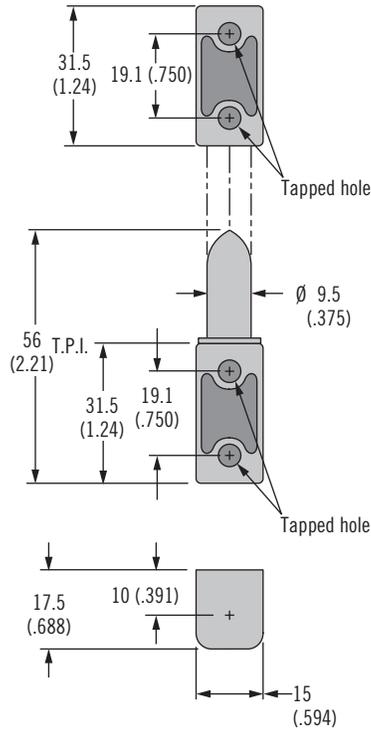
Calculate screw length using the following formula:

Door thickness + 5 (.200)

In-line mount preparation:

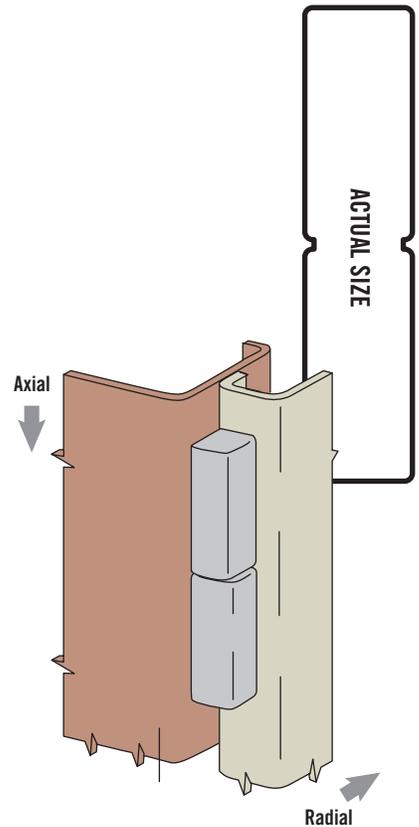
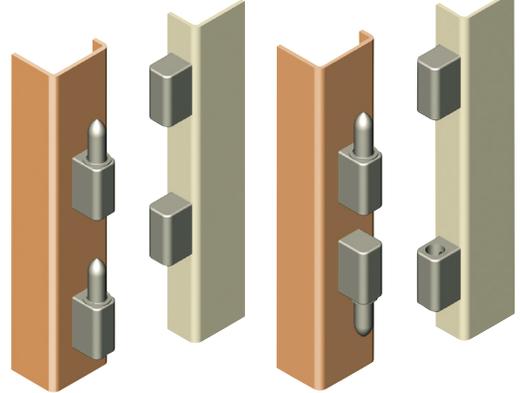
To allow for 180° rotation R or S must be < 25.4 (1.00).

Dimensions in millimeters (inch) unless otherwise stated



For Lift-Off Mounting

For Non Lift-Off Mounting



### Part Number

See Table

Tapped Hole	Part Number
Imperial 10-32	96-10-500-50
Metric M5 x 0.8	96-50-500-50

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

[www.southco.com/96](http://www.southco.com/96)



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[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

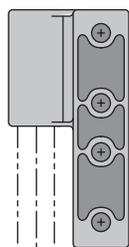
# 96 Hinge

Lift-off · Offset · Zinc

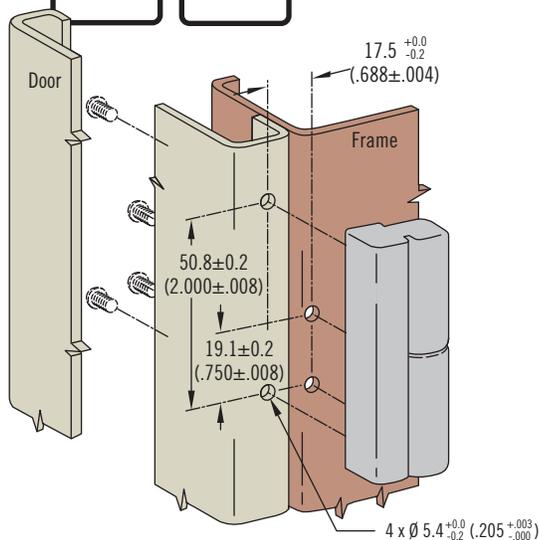
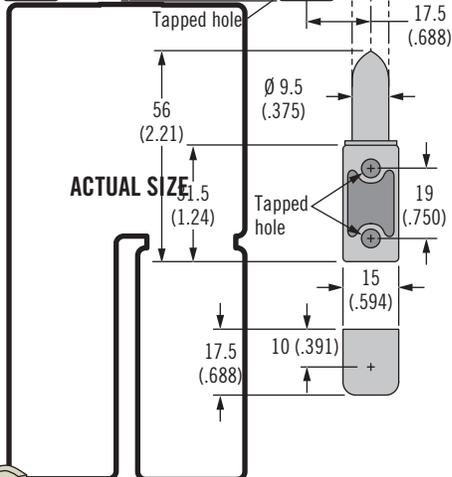
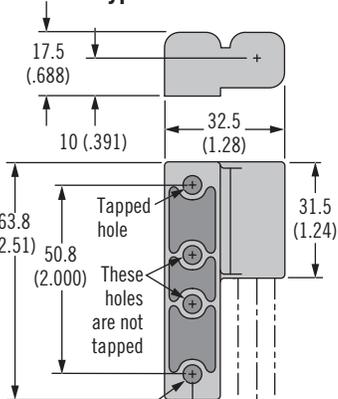


Dimensions in millimeters (inch) unless otherwise stated

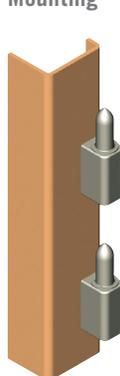
### Type B



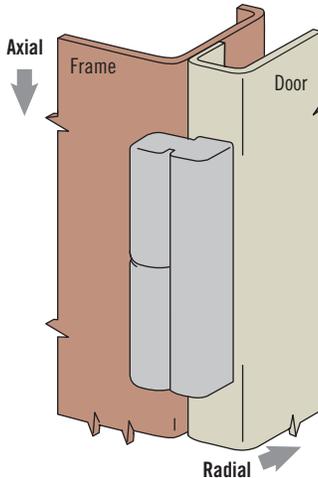
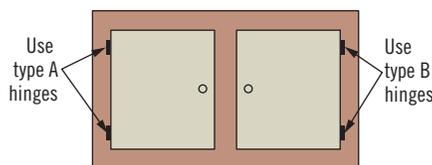
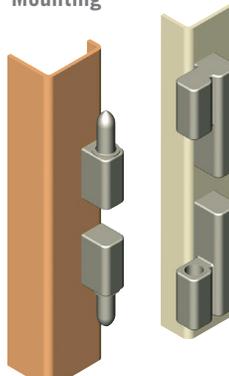
### Type A



### For Lift-Off Mounting



### For Non Lift-Off Mounting



- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Zinc alloy, black powder coated

### Performance Details

	Radial Load	Axial Load
Maximum static load	1300 N (300 lbf)	2200 N (500 lbf)
Average ultimate load	3300 N (750 lbf)	9300 N (2100 lbf)

### Installation Notes

Screws not supplied.  
 Maximum tightening torque of screw: 8.5 N·m (75 in·lbf)  
 Calculate screw length using the following formula:  
 Door thickness + 10 (.400)

Tapped Hole	Part Number	
	Type A	Type B
Imperial 10-32	96-10-510-50	96-10-520-50
Metric M5 x 0.8	96-50-510-50	96-50-520-50

### Part Number

See table





# 96 Hinge

Lift-off · In-line · Zinc and stainless steel

Dimensions in millimeters (inch) unless otherwise stated

- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Zinc alloy, chrome plated, powder coated or stainless steel

### Performance Details

Radial load

Maximum static load:

Zinc alloy: 1300 N (300 lbf)

Stainless steel: 3000 N (670 lbf)

Axial Load

Maximum static load:

Zinc alloy: 2200 N (500 lbf)

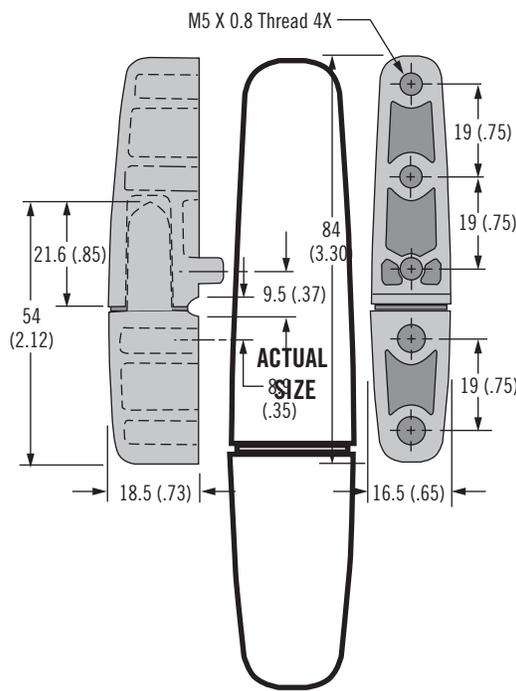
Stainless steel: 5000 N (1120 lbf)

### Installation Notes

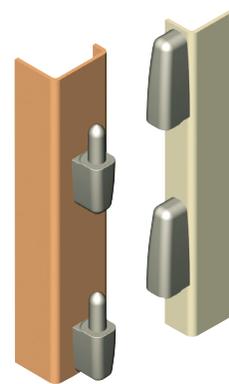
Screws not supplied.

Attach hinge with four M5 x 0.8

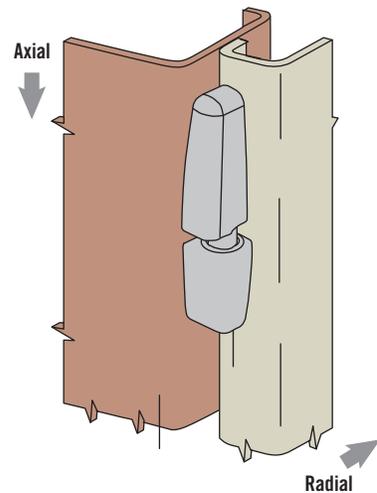
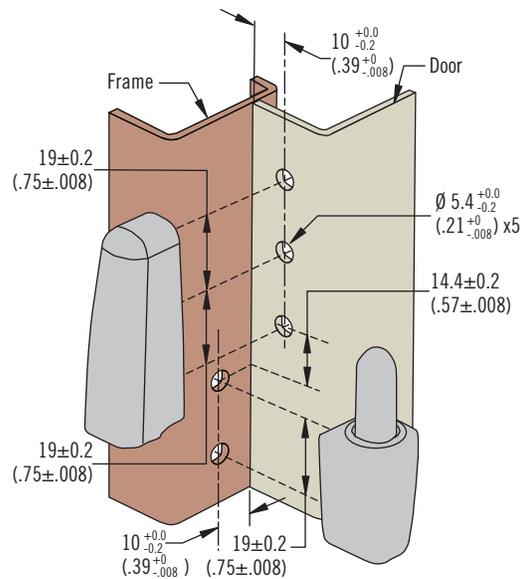
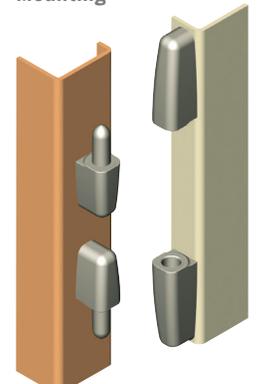
Maximum screw length = door (or frame) thickness + 10 (.400)



For Lift-Off Mounting



For Non Lift-Off Mounting



### Part Number

See table

Material & Finish	Part Number
Zinc alloy, bright chrome	96-MA-80-10
Zinc alloy, black powder coated	96-MA-80-50
Zinc alloy, satin chrome	96-MA-80-20
Stainless steel, polished	96-MA-80-24

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

[www.southco.com/96](http://www.southco.com/96)



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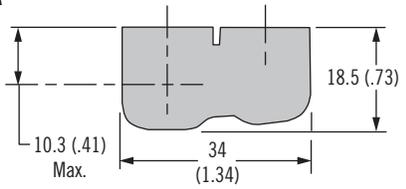


# 96 Hinge

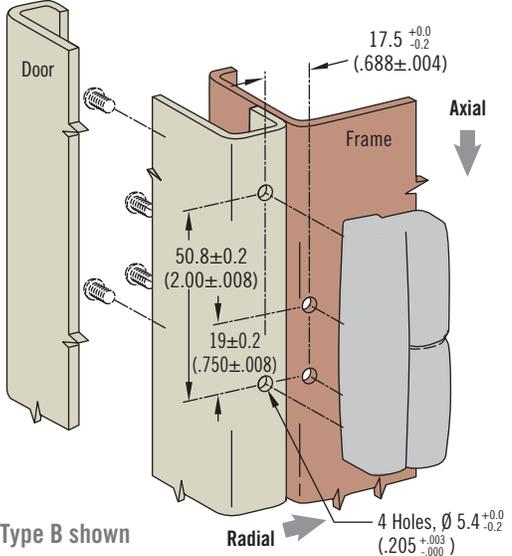
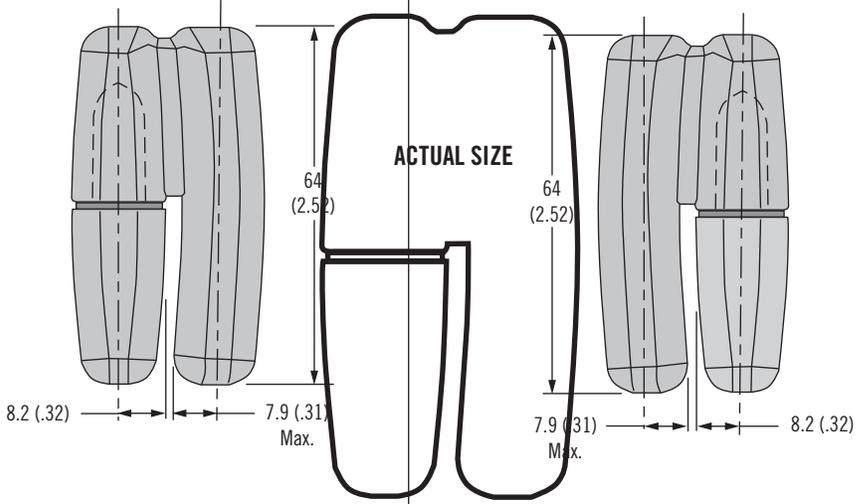
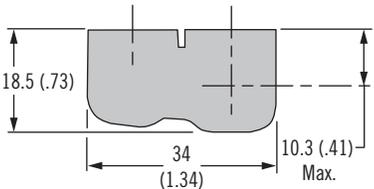
Lift-off · Offset · Zinc and stainless steel

Dimensions in millimeters (inch) unless otherwise stated

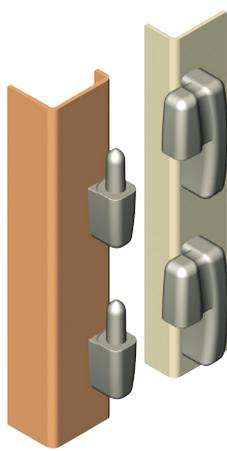
### Type A



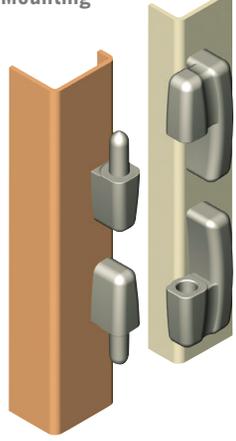
### Type B



### For Lift-Off Mounting



### For Non Lift-Off Mounting



- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Zinc alloy, chrome plated, powder coated or stainless steel

### Performance Details

**Radial load**  
 Maximum static load:  
 Zinc alloy: 1300 N (300 lbf)  
 Stainless steel: 3000 N (670 lbf)

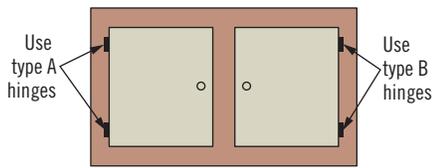
**Axial Load**  
 Maximum static load:  
 Zinc alloy: 2200 N (500 lbf)  
 Stainless steel: 5000 N (1120 lbf)

### Installation Notes

Screws not supplied.  
 Attach hinge with four M5 x 0.8  
 Maximum screw length = door (or frame) thickness + 10 (.400)



Type B shown



Material & Finish	Part Number	
	Type A	Type B
Zinc alloy, bright chrome	96-MA-8A-10	96-MA-8B-10
Zinc alloy, black powder coated	96-MA-8A-50	96-MA-8B-50
Zinc alloy, satin chrome	96-MA-8A-20	96-MA-8B-20
Stainless steel, polished	96-MA-8A-24	96-MA-8B-24

### Part Number

See table

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





# 96 Hinge

Lift-off · In-line · Offset · Plastic

- Allows for quick, easy door removal
- Corrosion-resistant materials
- Door can also be permanently installed

### Material and Finish

Glass-filled nylon, black

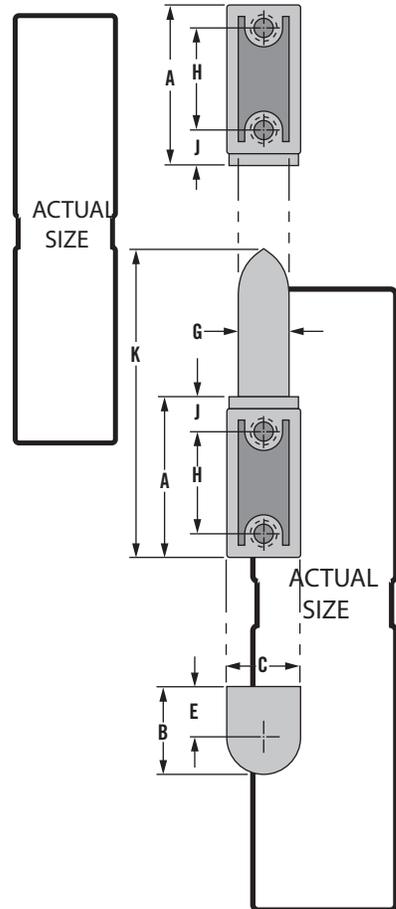
### Performance Details

300 Series	Radial Load	Axial Load
Maximum static load	670 N (150 lbf)	1560 N (350 lbf)
Average ultimate load	1100 N (250 lbf)	2500 N (550 lbf)

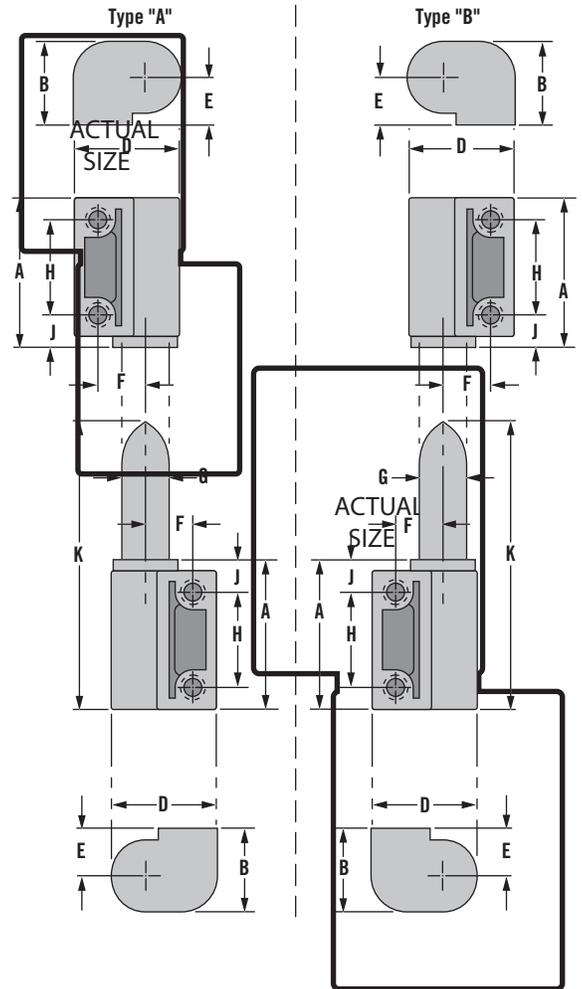
  

400 Series	Radial Load	Axial Load
Maximum static load	1000 N (225 lbf)	2000 N (450 lbf)
Average ultimate load	1900 N (425 lbf)	4900 N (1100 lbf)

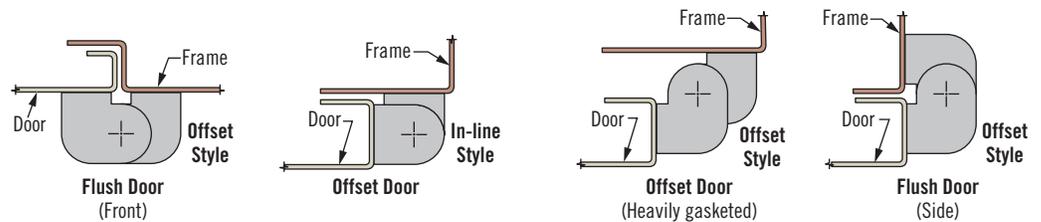
### In-Line Knuckle Style



### Offset Knuckle Style



### Mounting variations



Dimensions in millimeters (inch) unless otherwise stated

### Part Number

See table

Series	Tapped Hole	Dimensions								Part Number		
		A	B	C	D	E, F & G	H	J	K	In-Line Knuckle Style	Offset Knuckle Style	
		Type "A"	Type "B"									
300	M5	31	16.7	14.3	21.5	9.5	19	7	58	96-50-300-11	96-50-310-11	96-50-320-11
	10-24	(1.22)	(.66)	(.56)	(.84)	(.38)	(.75)	(.28)	(2.28)		96-10-300-11	96-10-310-11
400	M6	41.3	22.2	19	28.5	12.7	25.5	9.5	78	96-50-400-11	96-50-410-11	96-50-420-11
	1/4-20	(1.63)	(.88)	(.75)	(1.13)	(.50)	(1.00)	(.38)	(3.06)		96-10-400-11	96-10-410-11

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

[www.southco.com/96](http://www.southco.com/96)



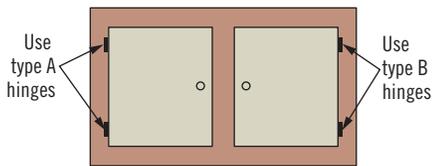
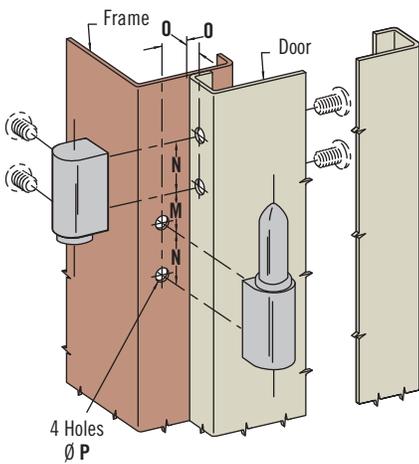
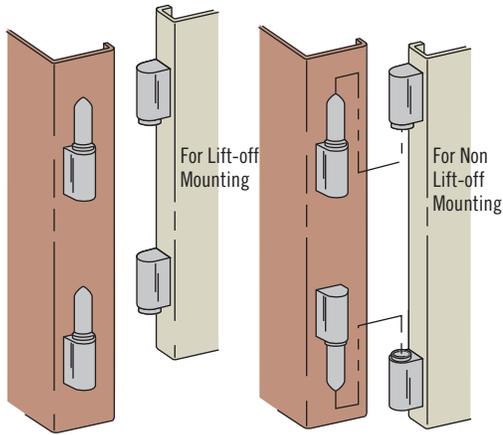
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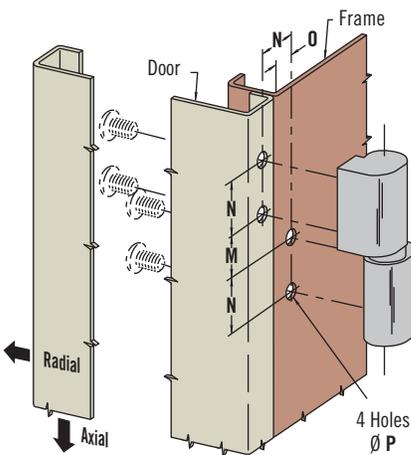
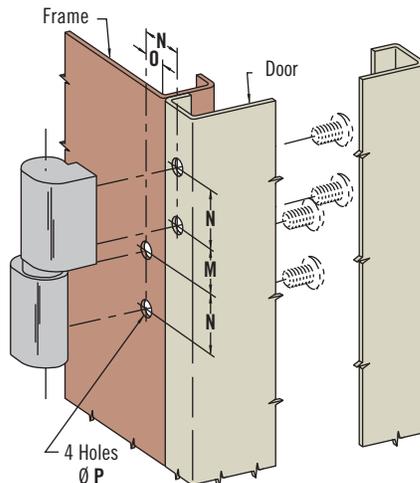
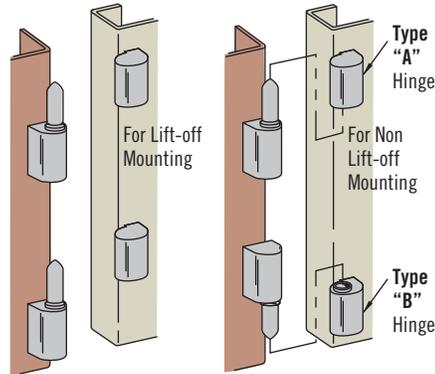
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**In-Line Knuckle Style**



**Offset Knuckle Style**



Dimensions in millimeters (inch) unless otherwise stated

Series	Installation Dimensions			
	M	N	O	P
300	14.3 <sup>+0.0</sup> <sub>-0.3</sub> (.563 ± .008)	19 <sup>+0.2</sup> <sub>-0.1</sub> (.750 ± .008)	9.5 <sup>+0.3</sup> <sub>-0.1</sub> (.375 ± .005)	5.4 <sup>+0.1</sup> <sub>-0.0</sub> (.205 <sup>+0.003</sup> <sub>-0.000</sub> )
400	19.0 <sup>+0.0</sup> <sub>-0.3</sub> (.750 ± .008)	25.5 <sup>+0.1</sup> <sub>-0.2</sub> (1.000 ± .008)	12.7 <sup>+0.2</sup> <sub>-0.1</sub> (.500 ± .005)	6.7 <sup>+0.1</sup> <sub>-0.0</sub> (.264 <sup>+0.003</sup> <sub>-0.000</sub> )

**Installation Notes**

Screws not supplied  
Maximum tightening torque of screw: 2.8 N·m (25 in·lbf)

Calculate screw length using the following formula:  
Door thickness + adjustment value

Series	Adjustment Value	
	In-Line	Offset
300	4.8 (.19)	6.5 (.25) Min. to 9.5 (.38) Max.
400	6.4 (.25)	9.5 (.38) Min. to 12.7 (.50) Max.





# 96 Hinge

Lift-off · In-line · Plastic

Dimensions in millimeters (inch) unless otherwise stated

- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Black: Glass-filled nylon  
 Chrome: PC/ABS blend, chrome

### Performance Details

Black	Radial Load	Axial Load
Maximum static load	700 N (155 lbf)	1200 N (270 lbf)
Average Ultimate load	1000 N (224 lbf)	3500 N (785 lbf)

Chrome	Radial load	Axial load
Maximum static load	350 N (79 lbf)	900 N (202 lbf)
Average ultimate load	600 N (135 lbf)	2200 N (495 lbf)

### Installation Notes

Recommended tightening torque for mounting screws:  
 1.6 N·m (14 in·lbf)

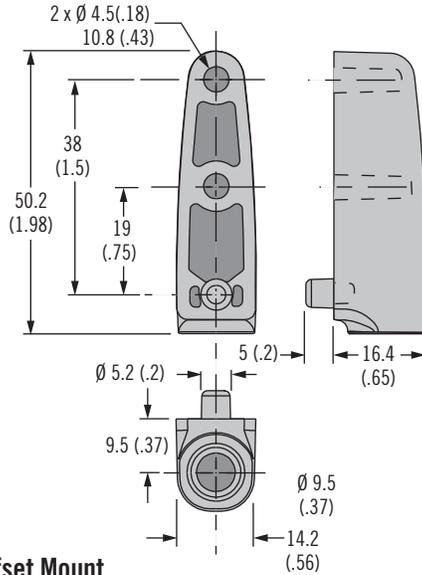
Offset mount preparation:  
 To allow for 180° rotation A or B must be 8.5±1 (.33±.04)

### Part Number

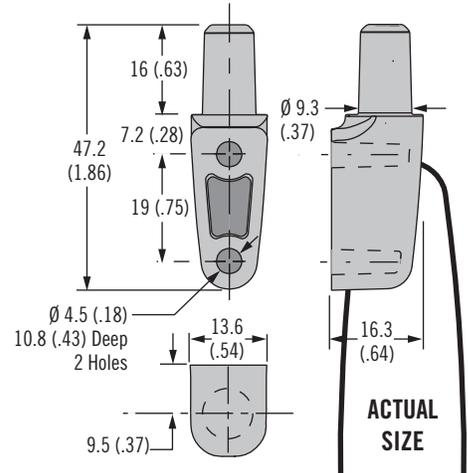
See table

Order pin, receiver and screws separately

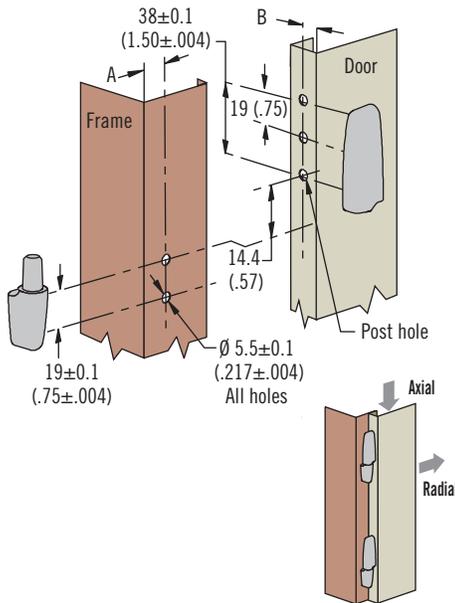
### Receiver



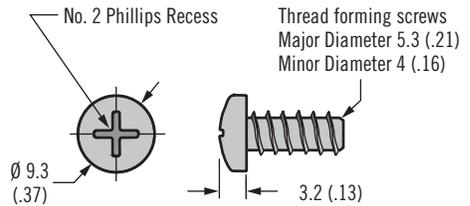
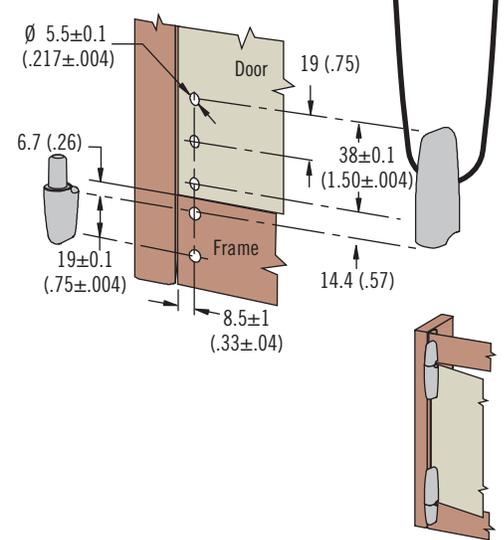
### Pin



### Offset Mount



### Flush Mount



Door Thickness	Part Number
	Screws (4 per bag)
1 - 4 (.04 - .16)	96-79-1
4 - 7 (.16 - .28)	96-79-2
7 - 10 (.28 - .39)	96-79-3
10 - 13 (.39 - .51)	96-79-4

Finish	Part Number	
	Pin	Receiver
Black	96-710	96-720
Chrome	96-711	96-721



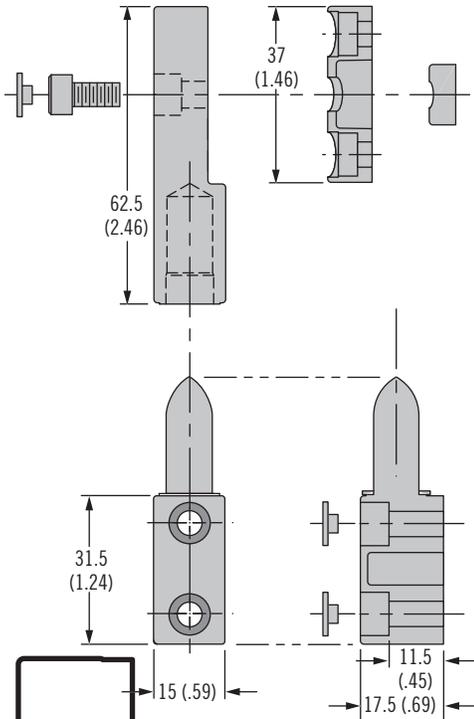


# 96 Hinge

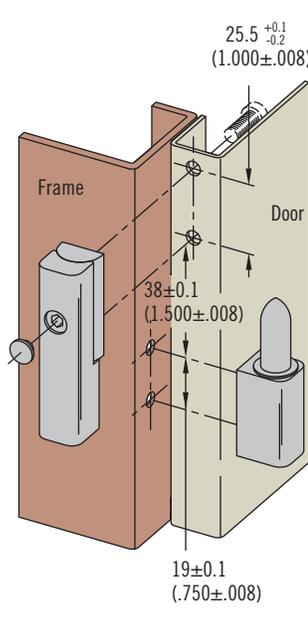
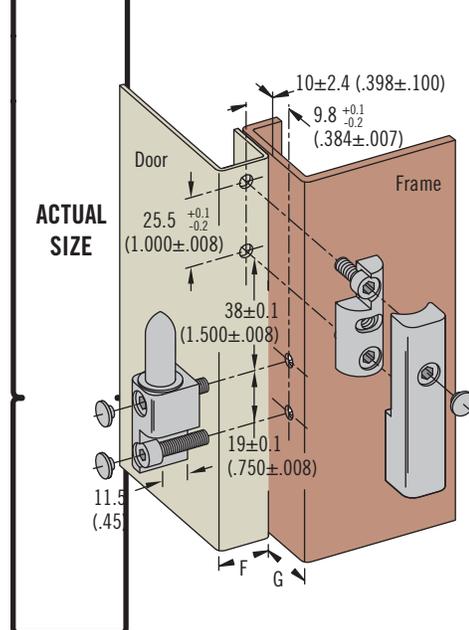
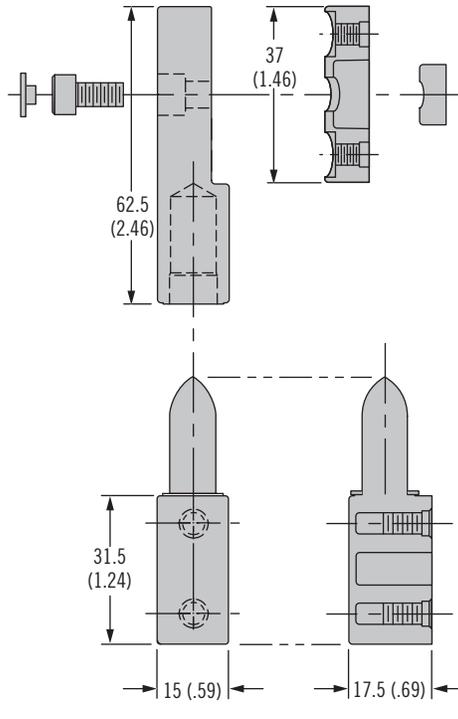
Lift-off · Adjustable compression · In-line · Zinc

Dimensions in millimeters (inch) unless otherwise stated

## Front Mount



## Concealed Mount



- Adjusts to ensure gasket compression
- Allows for quick, easy door removal

### Material and Finish

Zinc alloy, black powder coated

### Installation Notes

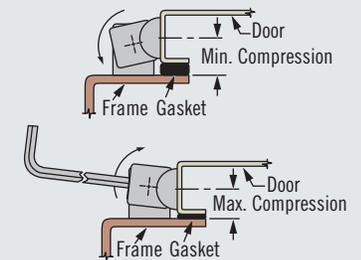
Screws not supplied.  
Maximum screw length equals door or frame thickness plus 7.5 (.30)

### Performance Details

	Radial Load	Axial Load
Maximum static load	1000 N (255 lbf)	2220 N (500 lbf)
Average ultimate load	1550 N (350 lbf)	14,000 N (3200 lbf)

### Notes

Hinges provide 5 (.20) of total adjustment  
Either F Dimension or G dimension must be less than 19.8 (.78) for the door to open a full 180°



Install Style	Tapped Hole	Part Number
Front mount	Thru hole	96-10-572
	10-32 Imperial	96-10-570
Concealed mount	M5 x 0.8 Metric	96-50-570

### Part Number

See table





# 96 Hinge

Lift-off · In-line · Zinc

Dimensions in millimeters (inch) unless otherwise stated

- Allows for quick, easy door removal
- Concealed installation

### Material and Finish

Zinc alloy, black powder coated

### Performance Details

	Radial Load	Axial Load
Maximum static load	1100 N (250 lbf)	1250 N (280 lbf)
Average ultimate load	2400 N (530 lbf)	2600 N (580 lbf)

### Installation Notes

Screws not supplied.

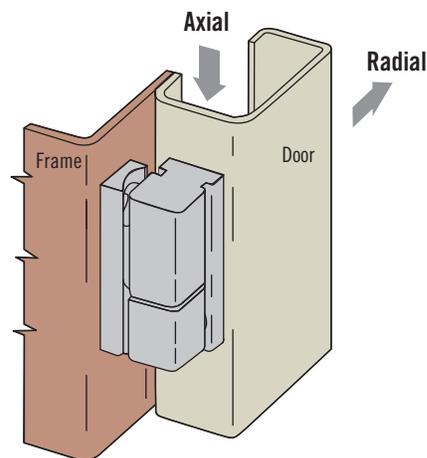
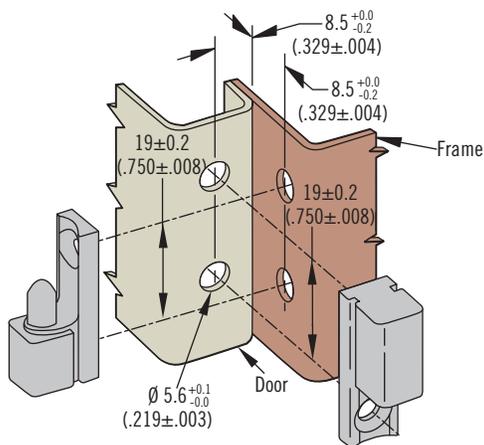
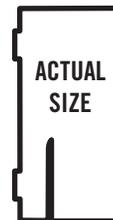
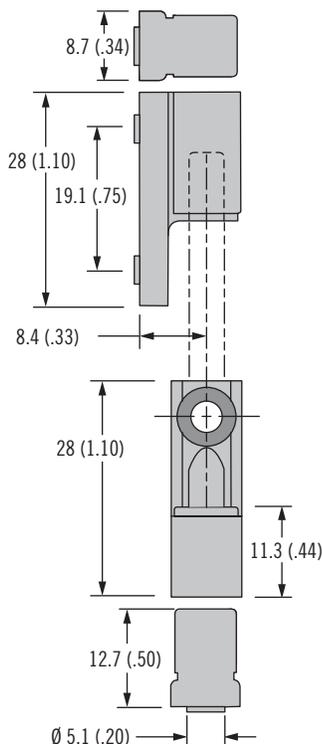
Recommended tightening torque for mounting screws:

1.1 N·m (10 in·lbf)

Calculate screw length using the following formula:

Door / frame thickness + 5 (.20)

### In-Line



### Part Number

See table

Tapped Hole	Part Number
Imperial 6-32	96-110
Metric M4 x 0.7	96-140



[www.southco.com/96](http://www.southco.com/96)



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[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)



# 96 Hinge

Lift-off · In-line · Zinc

Dimensions in millimeters (inch) unless otherwise stated

- Allows for quick, easy door removal
- Concealed installation

### Material and Finish

Zinc alloy, black powder coated

### Performance Details

	Radial Load	Axial Load
Maximum static load	1100 N (250 lbf)	1250 N (280 lbf)
Average ultimate load	2400 N (530 lbf)	2600 N (580 lbf)

### Installation Notes

Screws not supplied.

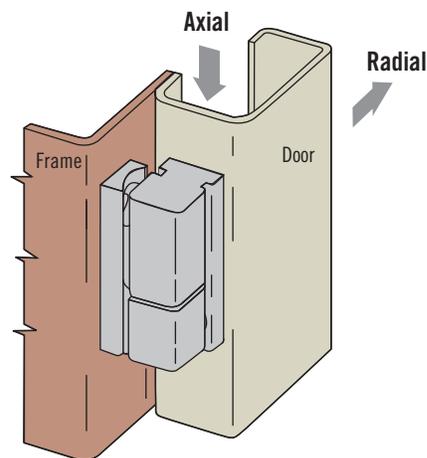
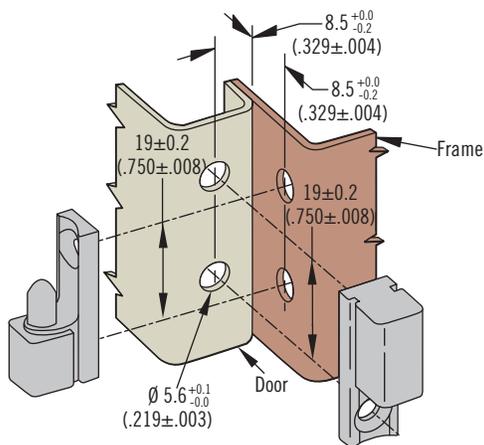
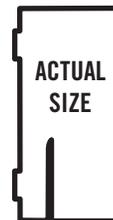
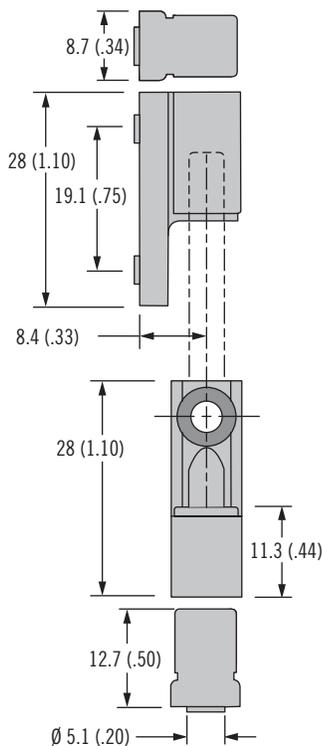
Recommended tightening torque for mounting screws:

1.1 N·m (10 in·lbf)

Calculate screw length using the following formula:

Door / frame thickness + 5 (.20)

### In-Line



### Part Number

See table

Tapped Hole	Part Number
Imperial 6-32	96-110
Metric M4 x 0.7	96-140



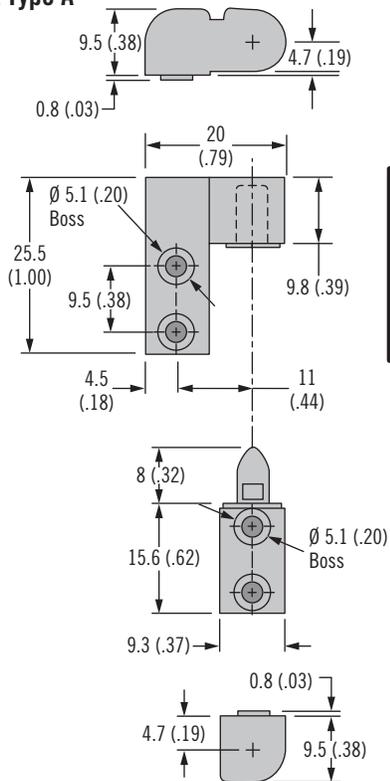
# 96 Hinge

Lift-off · Offset · Zinc

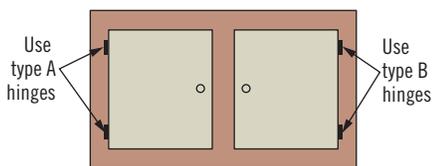
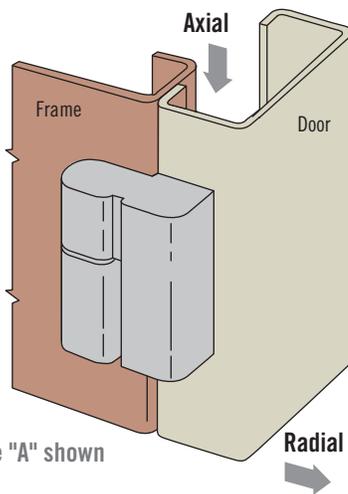
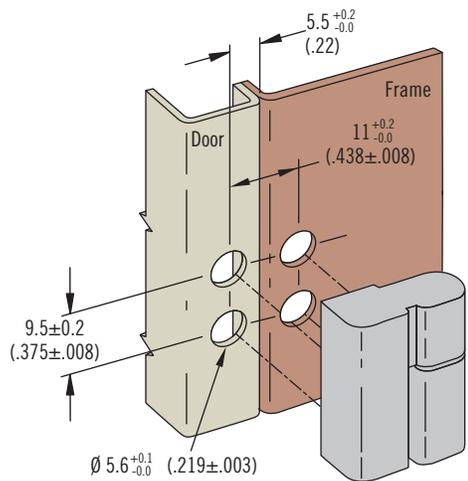
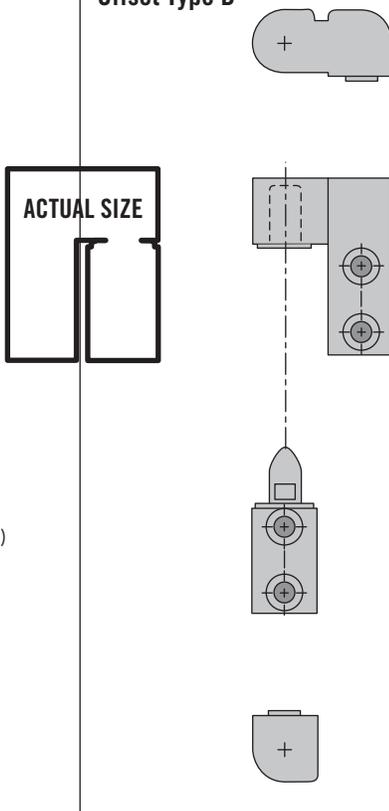


Dimensions in millimeters (inch) unless otherwise stated

### Offset Type A



### Offset Type B



- Allows for quick, easy door removal
- Door can also be permanently installed

### Material and Finish

Zinc alloy, black powder coated

### Performance Details

	Radial Load	Axial Load
Maximum static load	1100 N (250 lbf)	1250 N (280 lbf)
Average ultimate load	3300 N (750 lbf)	2600 N (580 lbf)

### Installation Notes

Screws not supplied.  
 Recommended tightening torque for mounting screws:  
 1.1 N·m (10 in·lbf)  
 Calculate screw length using the following formula:  
 Door / frame thickness +5 (.20)

Tapped Hole	Part Number	
	Type A	Type B
Imperial 6-32	96-111	96-112
Metric M4 x 0.7	96-141	96-142

### Part Number

See table





# EH Hinge

## Surface mount

- Multiple size and mounting options
- Concealed mounting hardware

### Material and Finish

Leaf: Zinc alloy black powder coated, chrome plated or nylon black

Pin: Stainless steel

Thread studs: Steel, zinc plated

### Performance Details

Size	Radial Load	Axial Load
40 Zinc	1330 N (298 lbf)	2220N (500 lbf)
50 Zinc	2140 N (481 lbf)	3560 N (800 lbf)
50 Nylon	890 N (200 lbf)	1230N (276 lbf)

### Installation Notes

Countersunk version:

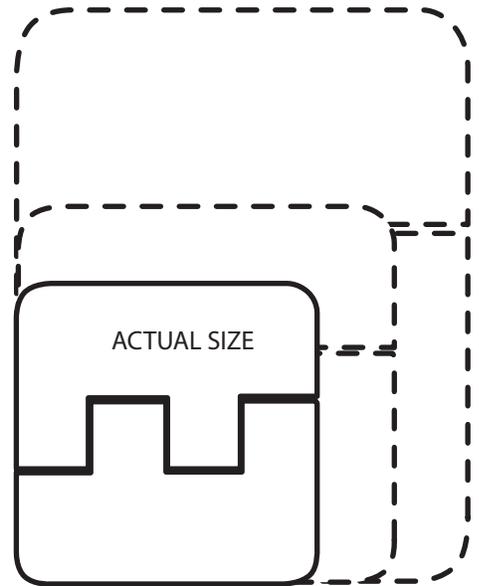
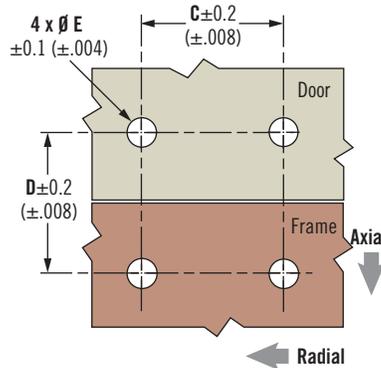
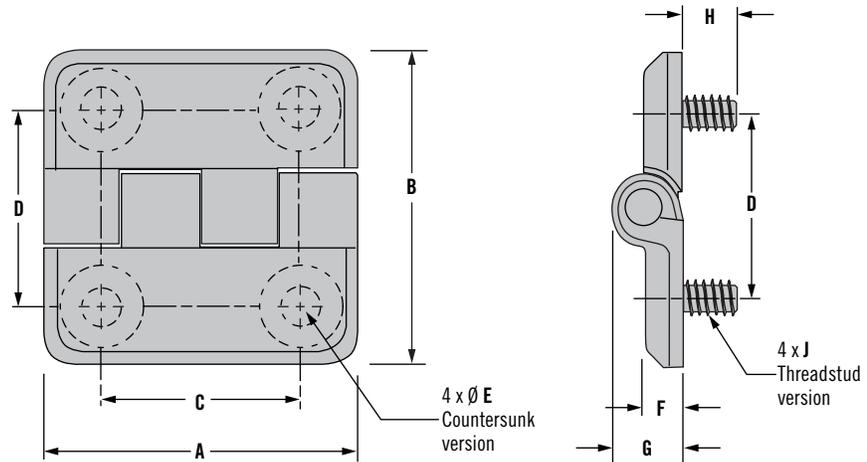
40 Size M5 (No. 10) CSK screw

50/60 Size M6 (No. 1/4 - 20) CSK screw (not supplied)

Threadstud version:

40 Size M5 nuts (not supplied)

50/60 Size M6 nuts (not supplied)



Dimensions in millimeters (inch) unless otherwise stated

### Part Number

See table

A	B	Thread Stud Part Number			C	D	Ø E	F	G	H	Thread stud J
		Zinc chrome	Zinc black	Nylon black							
40 (1.57)		EH-5A-4G4-38	EH-5A-4G4-50	~	25 (.984)	5.4 (.213)	5 (.20)	9 (.35)	8.5 (.35)	M5	
50 (1.97)		EH-6A-5G5-38	EH-6A-5G5-50	EH-6A-5G5-20	30 (1.181)	6.4 (.252)	6 (.24)	11 (.43)	8 (.31)	M6	

A	B	Countersunk Thru-Hole Part Number			C	D	Ø E	F	G
		Zinc chrome	Zinc black	Nylon black					
40 (1.57)		EH-5A-4V4-38	EH-5A-4V4-50	~	25 (.984)	5.4 (.213)	5 (.20)	9 (.35)	
50 (1.97)		EH-6A-5V5-38	EH-6A-5V5-50	EH-6A-5V5-20	30 (1.181)	6.4 (.252)	6 (.24)	11 (.43)	
60 (2.36)	76 (2.99)	EH-7A-6V8-38	EH-7A-6V8-50	~	36 (1.42)		56 (2.20)	8 (.31)	15 (.59)

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

[www.southco.com/EH](http://www.southco.com/EH)



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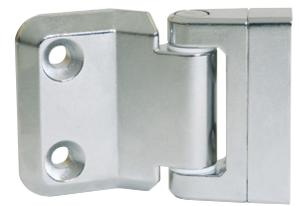


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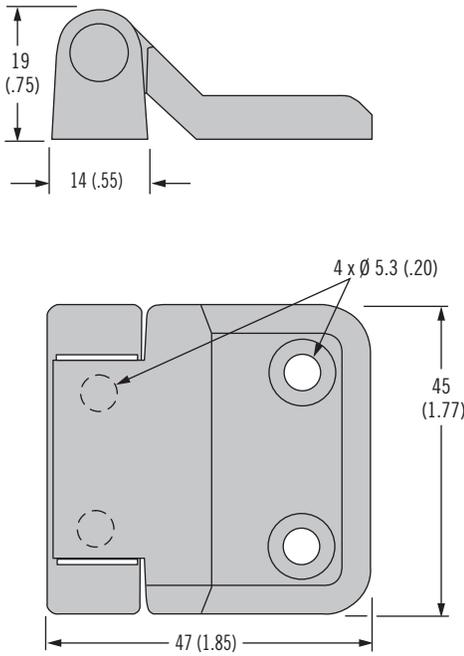
# EH Hinge

## Surface mount · Offset

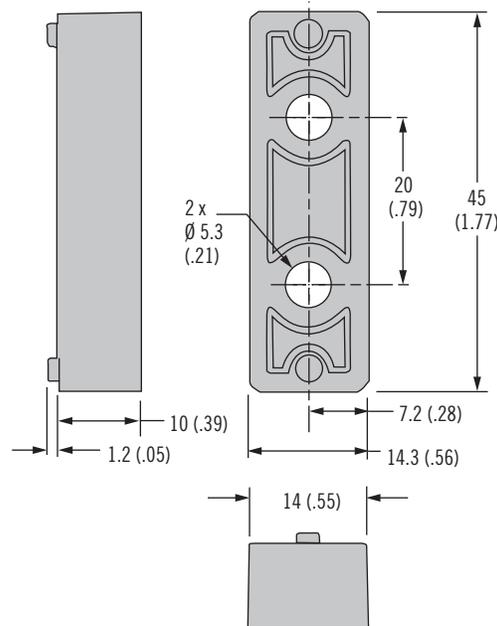


Dimensions in millimeters (inch) unless otherwise stated

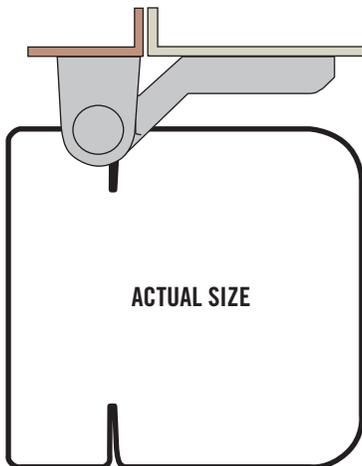
### Hinge



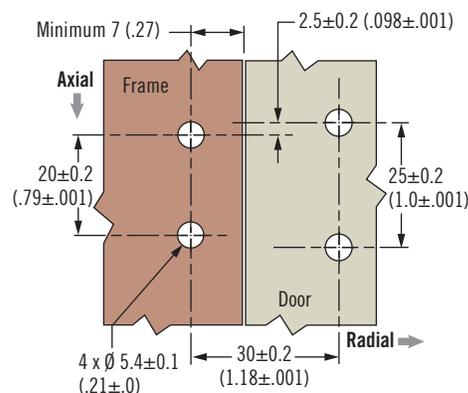
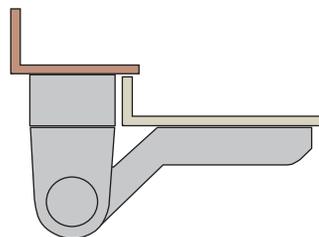
### Spacer



### Standard Flush Mount



### Offset Mount with Spacer



- Allows 180 degree opening
- Offset pivot maximizes cabinet access
- Ideal for closely spaced enclosures

### Material and Finish

Zinc alloy, black powder coated or bright chrome plated  
Pin: Stainless steel

### Product Strength Guidelines

Radial load:

Maximum static load:  
2670 N (600 lbf)

Axial load:

Maximum static load:  
2670 N (600 lbf)

### Installation Notes

Screws not supplied.  
Attach hinge with M5 (No. 10) CSK

Finish	Part Number	
	Hinge	Spacer
Chrome	EH-6C-5V4-38	EH-6C-B-38
Black	EH-6C-5V4-50	EH-6C-B-50

### Part Number

See table





# N6 Hinge

Surface mount · 304 or 316 Stainless Steel

Dimensions in millimeters (inch) unless otherwise stated

- Stamped hinge construction
- High gloss finish option
- Covered hinge option

### Material and Finish

Stainless Steel, passivated or high gloss

### Performance Details

Radial load:  
Max. static load: 534 N (120 lbf)  
Axial load:  
Max. static load: 534 N (120 lbf)

### Installation Notes

Screws not supplied  
Install hinge with M4 (8-32) CSK

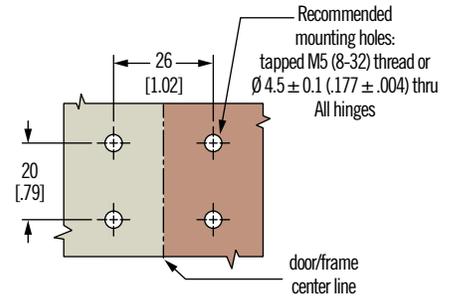
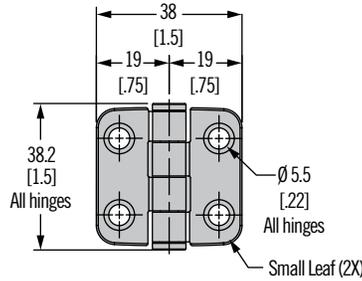
For optional covers:

Order covers separately.  
Clean hinge leaf surface to remove dirt, oil or grease.  
Remove backing from pre-applied adhesive. Place cover over leaf.  
Press firmly to activate adhesive.

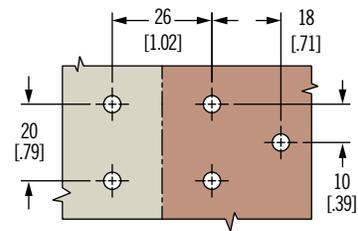
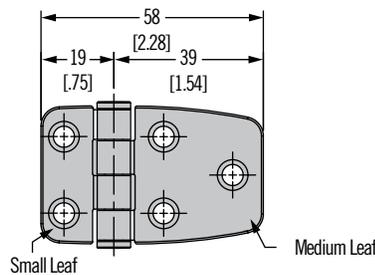
### Part Number

Order hinge and optional covers separately

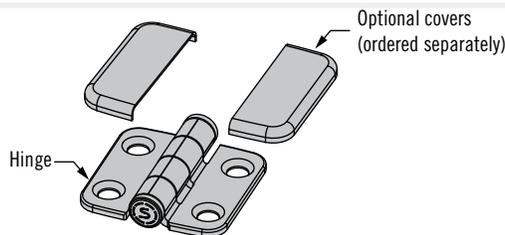
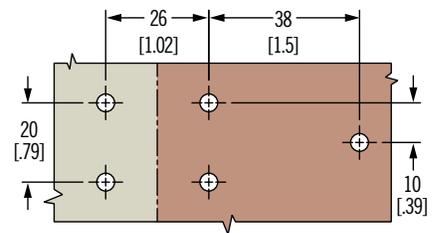
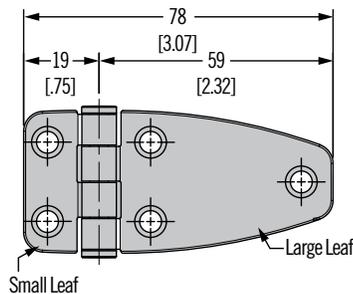
### Style 1 (Part Number see table)



### Style 2 (Part Number see table)



### Style 3 (Part Number see table)



Style	Part Number				
	304 Stainless Steel, Passivated	316 Stainless Steel, High Gloss			
	Hinge	Hinge	Small Leaf Cover	Medium Leaf Cover	Large Leaf Cover
1	N6-4E-422-20	N6-4E-422-24	N6-C-42-24 (2 each)	—	—
2	N6-4E-424-20	N6-4E-424-24	N6-C-42-24	N6-C-44-24	—
3	N6-4E-426-20	N6-4E-426-24	N6-C-42-24	—	N6-C-46-24
4	N6-4E-444-20	N6-4E-444-24	—	N6-C-44-24 (2 each)	—
5	N6-4E-446-20	N6-4E-446-24	—	N6-C-44-24	N6-C-46-24
6	N6-4E-466-20	N6-4E-466-24	—	—	N6-C-46-24 (2 each)

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

[www.southco.com/N6](http://www.southco.com/N6)



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[www.aboveboardelectronics.com](http://www.aboveboardelectronics.com)

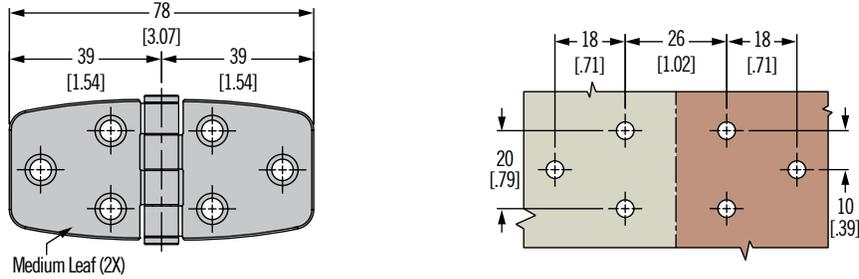
# N6 Hinge

Surface mount · 304 or 316 Stainless Steel

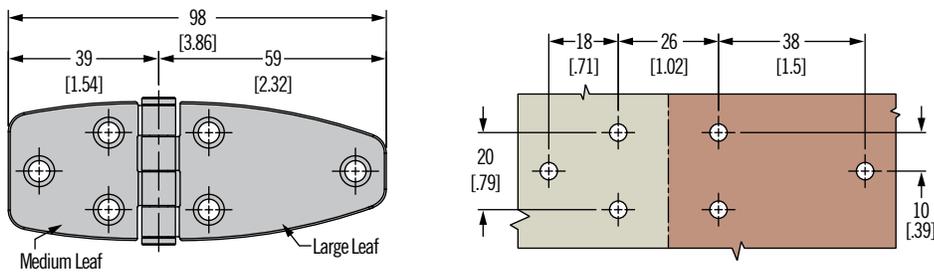


Dimensions in millimeters (inch) unless otherwise stated

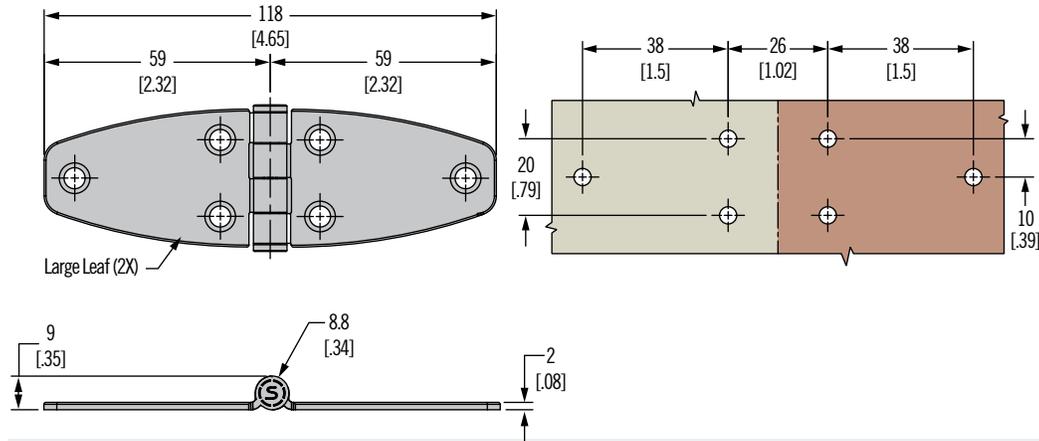
### Style 4 (Part Number see table)



### Style 5 (Part Number see table)

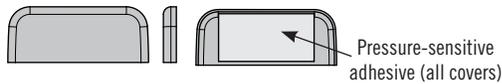


### Style 6 (Part Number see table)

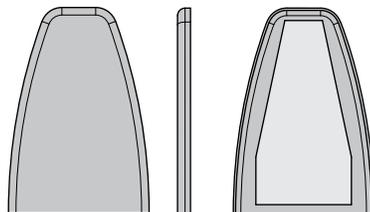


### Optional covers ordered separately

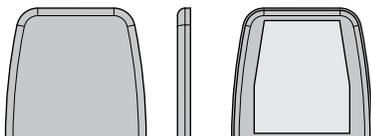
For use with small leaf: part number N6-C-42-24



For use with large leaf: part number N6-C-46-24



For use with medium leaf: part number N6-C-44-24



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

[www.southco.com/N6](http://www.southco.com/N6)





# KH Hinge

## Corner mount

- Fits flush while allowing full 180° rotation
- Dual mounting screws provide added security
- Allows door removal for service and access

### Material and Finish

Leaf: Zinc alloy, black powder coated or chrome plated  
Pin: Steel, zinc plated

### Performance Details

Zinc

Radial load:

Maximum static load:  
3000 N (670 lbf)

Axial load:

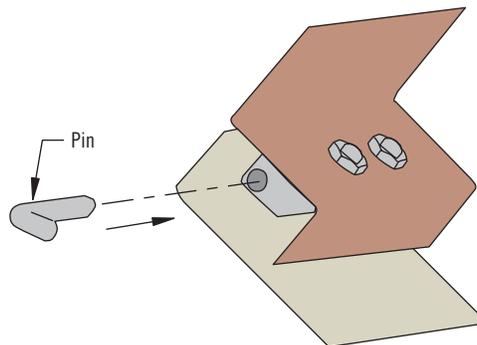
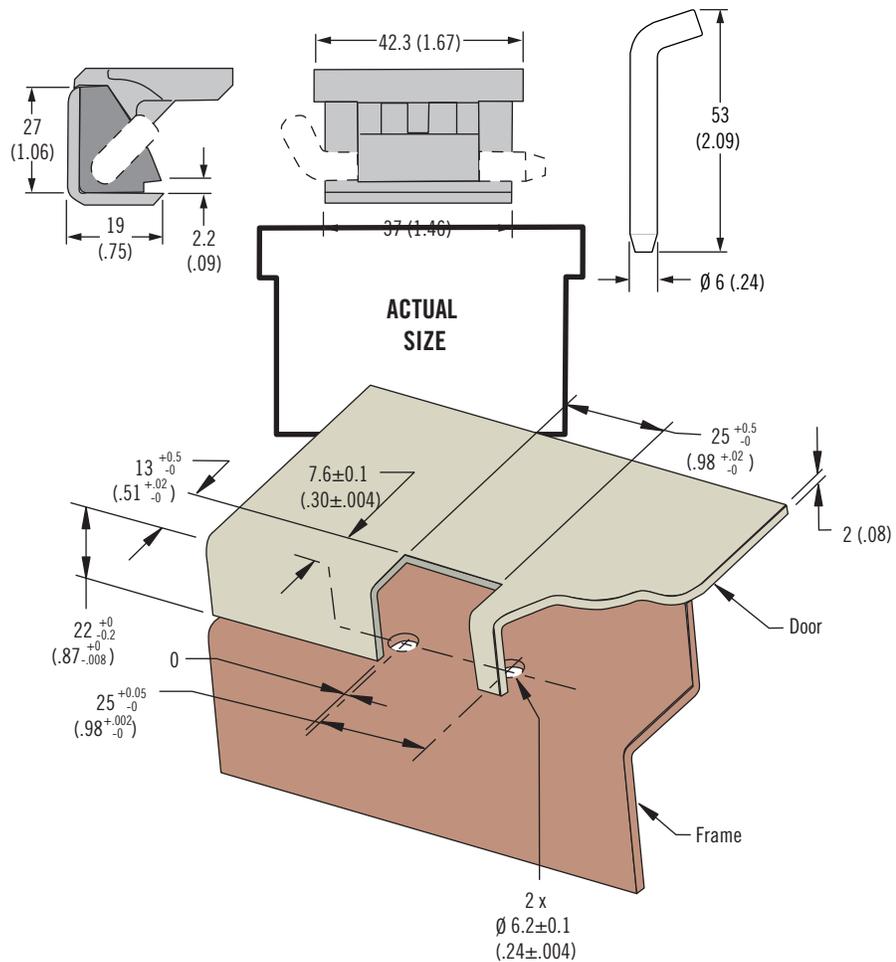
Maximum static load:  
3000 N (670 lbf)

### Installation Notes

Attach hinge with M6 screws and nuts (not supplied)

Maximum tightening torque of screw: 5 N·m (45 in·lbf)

Dimensions in millimeters (inch) unless otherwise stated



### Part Number

See table

Order hinge and hinge pin separately

Part Number	
Bright Chrome	Black Powder Coated
KH-62-V1-38	KH-62-V1-50

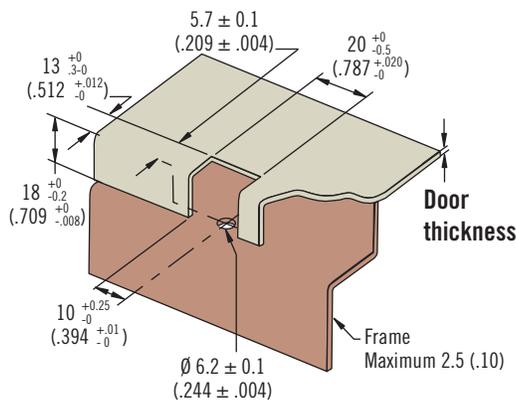
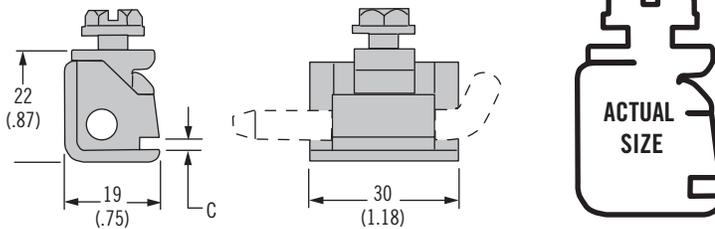
Part Number
Steel Hinge Pin
KH-G



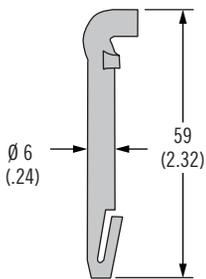
# KH Hinge Corner mount



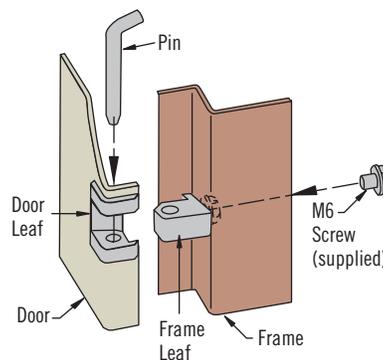
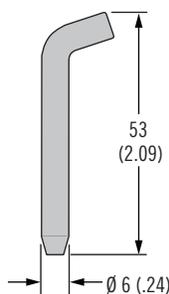
Dimensions in millimeters (inch) unless otherwise stated



### Plastic



### Steel



- Fits flush while allowing full 180° rotation
- Installs quickly with only one mounting screw
- Allows door removal for service and access



### Material and Finish

Leaf: Zinc alloy, black powder coated or chrome plated  
Pin: Steel, zinc plated, plastic

### Performance Details

Zinc  
Radial load:  
Maximum static load:  
1200 N (270 lbf)  
Axial load:  
Maximum static load:  
1200 N (270 lbf)

### Installation Notes

Screw supplied  
Attach hinge with M6 x 10  
Maximum screw length equals frame thickness plus 7.5 (.30)  
Maximum tightening torque of screw: 5 N•m (45 in•lbf)

D Door Thickness	Part Number	
	Bright Chrome	Black Powder Coated
1 - 1.2 (.04 - .05)	KH-41-T1-38	KH-41-T1-50
1.5 - 2 (.06 - .08)	KH-42-T1-38	KH-42-T1-50

Part Number	
Plastic Hinge Pin	Steel Hinge Pin
KH-P	KH-G

### Part Number

See table  
Order hinge and hinge pin separately





# F6 Hinge

## Removable style · Concealed

Dimensions in millimeters (inch) unless otherwise stated

- Hinge and hardware are concealed
- Allows for quick easy door removal
- Three styles

### Material and Finish

Steel, zinc plated, or stainless steel

### Performance Details

Steel

Radial load:

Maximum static load: 300 N (65 lbf)

Axial load:

Maximum static load:

500 N (112 lbf)

Stainless Steel

Radial load:

Maximum static load: 300 N (65 lbf)

Axial load:

Maximum static load:

800 N (180 lbf)

### Installation Notes

1. Select frame and door leaf separately for bulk packaging.
2. Select assembly for individual packaging (consists of 1 frame leaf and door leaf per bag)

Screws not supplied.

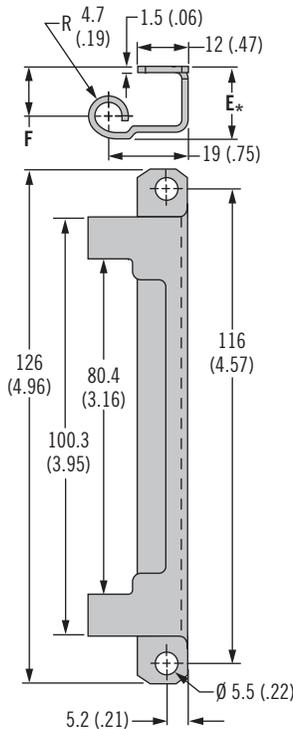
Use M5 (No. 10) hardware

Machine screws are recommended for mounting frame leaf

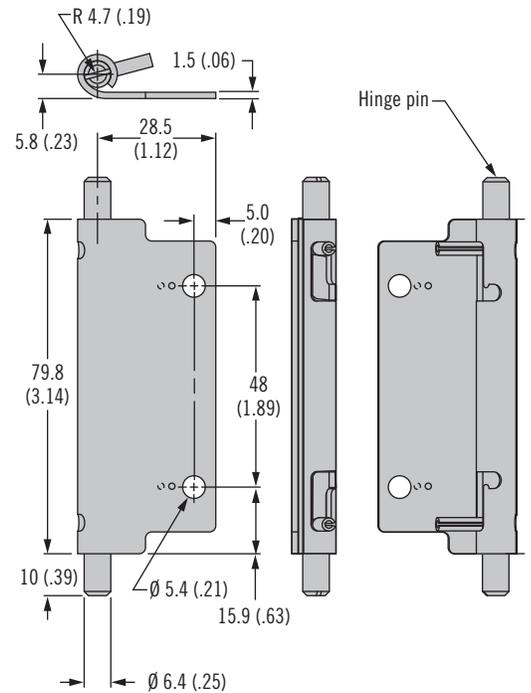
### Part Number

See table

### Frame Leaf



### Door Leaf

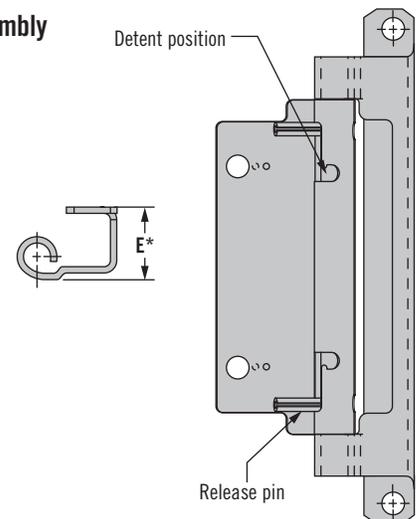


Frame Leaf Part Number				
Series	E	F	Steel	Stainless Steel
1	17 (.67)	11.8 (.47)	F6-901	F6-901-1
2	20 (.79)	14.8 (.58)	F6-902	F6-902-1
3	23.4 (.92)	18.2 (.72)	F6-903	F6-903-1

Door Leaf Part Number		
Door Leaf	Steel	Stainless Steel
	F6-940	F6-940-1

Part Number Assembled				
Assembly			Steel	Stainless Steel
Series	E	F		
1	17 (.67)	11.8 (.47)	F6-1	F6-1-1
2	20 (.79)	14.8 (.58)	F6-2	F6-2-1
3	23.4 (.92)	18.2 (.72)	F6-3	F6-3-1

### Assembly



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

[www.southco.com/F6](http://www.southco.com/F6)

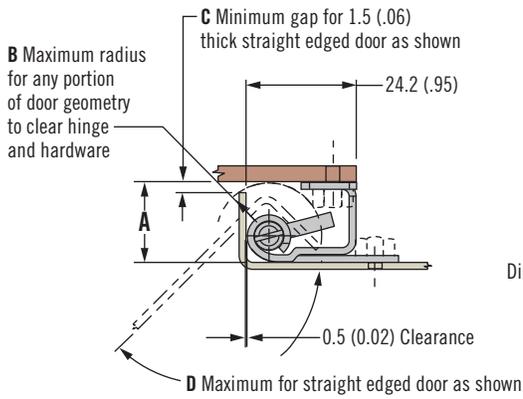


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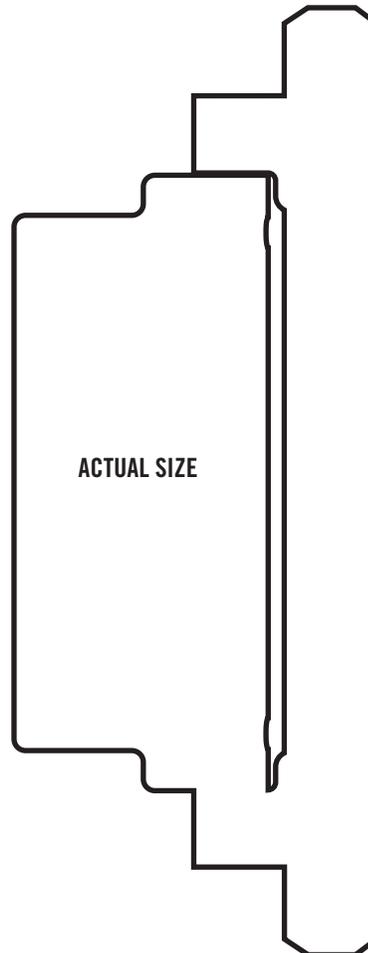
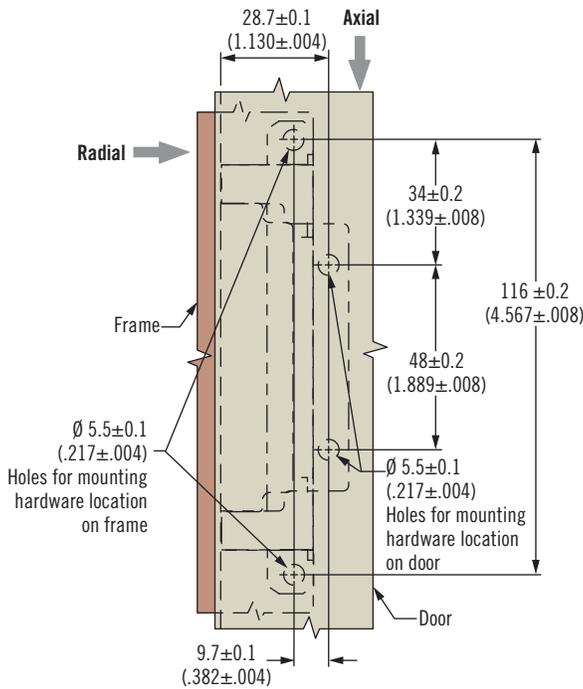


Hinges may be fastened to door and frame by:

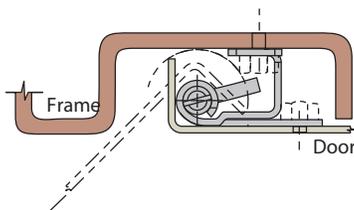
- M5 (No. 10) hardware. Machine screws are recommended for mounting frame leaf.
- \*Hex jam nuts. Verify clearance with door edge. Depending on jam nut orientation, full rotation may be obstructed.
- Welding.

Dimensions in millimeters (inch) unless otherwise stated

Series	Panel Preparations Dimensions			
	A	B	C	D
1	17.6 (.69)	10.9 (.43)	3.2 (.13)	132°
2	20.6 (.81)	12.7 (.50)	3.9 (.15)	125°
3	24 (.95)	15.3 (.60)	4.4 (.17)	118°



**Additional Mounting Options**



**Notes**

Mounting:

\* Select the frame leaf with a value of **E** best suited to the configuration of your door. The dimension **E** + 0.6 (.02) = the distance from the outside surface of your frame to the inside surface of your door.





# F6 Hinge

Removable style · Concealed · Heavy-duty

- High strength and durability
- Allows door removal without using tools
- Retractable pin version resists vibration and prevents pin loss

### Material and Finish

Steel, zinc plated or stainless steel, natural

### Performance Details

Steel

Radial load:

Maximum static load:

1000 N (225 lbf)

Average ultimate load:

2100 N (472 lbf)

Axial load:

Maximum static load:

2900 N (650 lbf)

Average ultimate load:

4900 N (1100 lbf)

Stainless Steel

Radial load:

Maximum static load:

1300 N (292 lbf)

Average ultimate load:

2800 N (629 lbf)

Axial load:

Maximum static load:

3600 N (809 lbf)

Average ultimate load:

6000 N (1350 lbf)

Operating temperature range:

-40° C (-40° F) to 85° C (185° F)

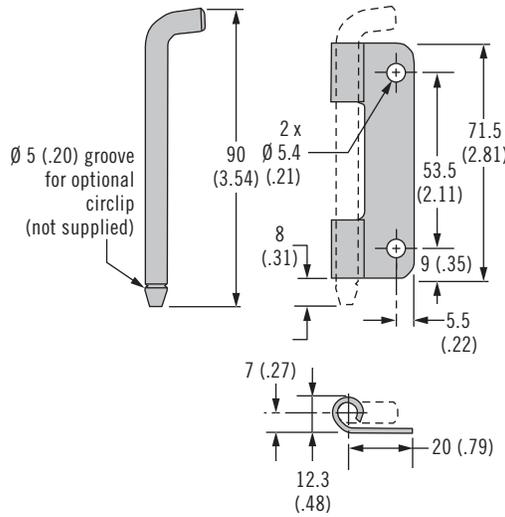
### Part Number

See table

Dimensions in millimeters (inch) unless otherwise stated

### Door Leaf

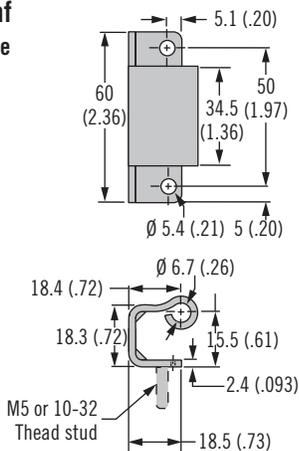
#### Removable Pin Style



Part Number		
Styles	Material	
	Steel	Stainless steel
Removable pin	F6-946	F6-946-5
Retractable pin type A	~	F6-941-5
Retractable pin type B	~	F6-942-5

### Frame Leaf

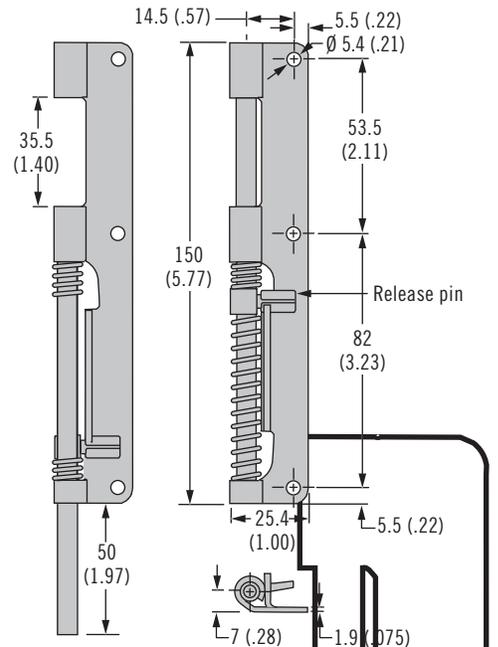
#### Formed Style



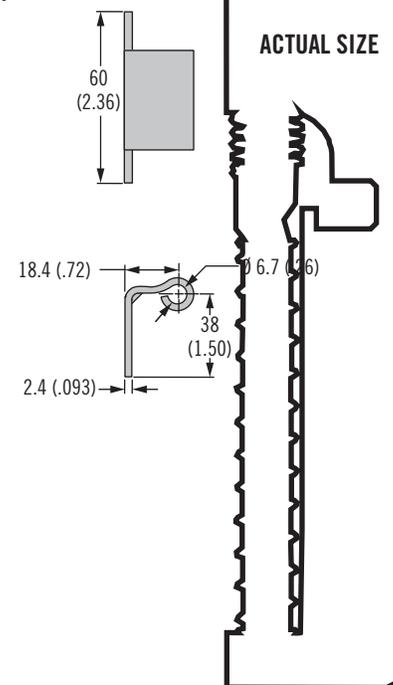
Part Number			
Style	Installation	Material	
		Steel	Stainless steel
Formed	Thru hole	F6-905	F6-905-5
Formed	M5 thread stud	F6-908	F6-908-5
Formed	10-32 thread stud	F6-907	F6-907-5
Flat	Weld	F6-904	F6-904-5

### Retractable Pin Style

Type A shown, Type B mirror image



### Flat Style



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

[www.southco.com/F6](http://www.southco.com/F6)



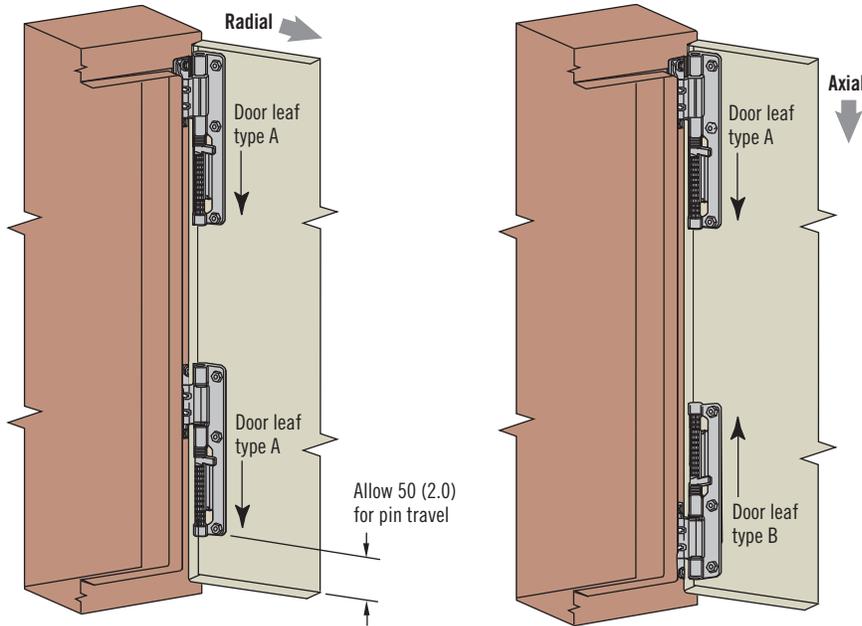
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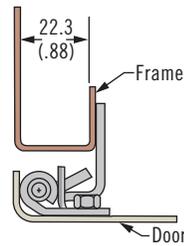
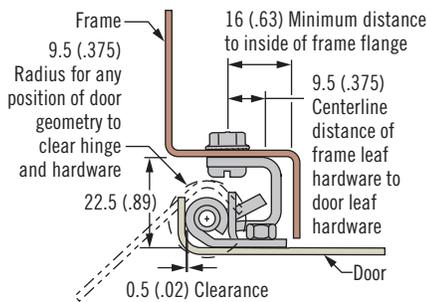
### Formed Frame Leaf



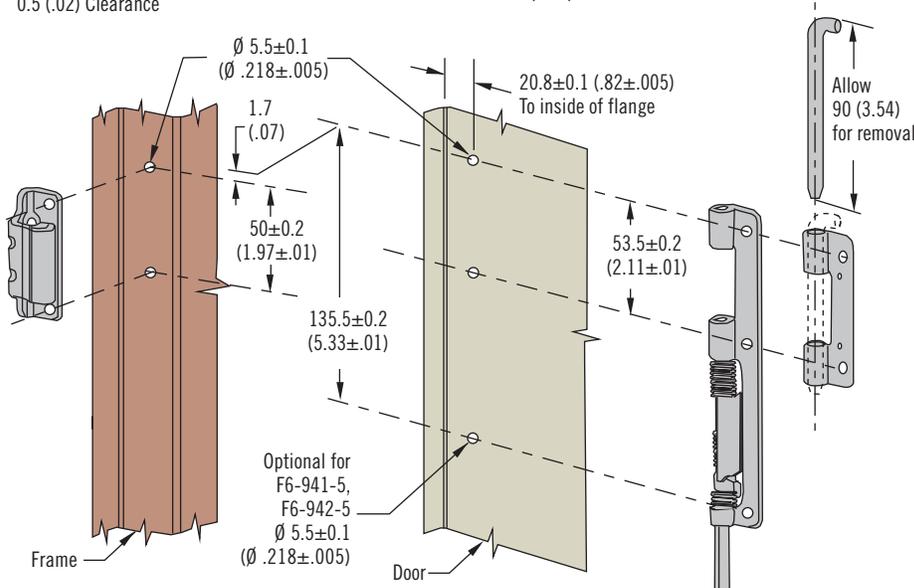
### Installation

Typical door and frame installation using formed frame leaf

Typical door and frame installation using flat frame leaf



Dimensions in millimeters (inch) unless otherwise stated



### Installation Notes

Order separately 1 door leaf and 1 frame leaf for a complete assembly  
 Screws not supplied.  
 Hinge Leaves may be fastened to the door and the frame by: M5 (No. 10) hardware (machine screws are recommended) or by welding.





# F6 Hinge

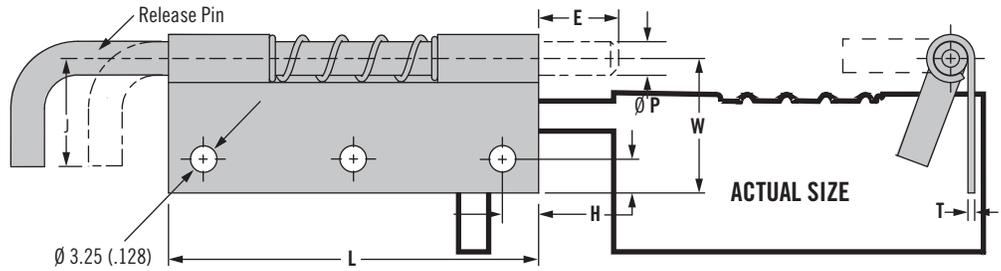
## Door removal

### Material and Finish

Steel, zinc plated or stainless steel



Dimensions in millimeters (inch) unless otherwise stated



S Size	L	E	H	J	P	T	W
3 - 4	22.2 (.88)	4 (.16)	4.0 (.16)	10 (.39)	3.0 (.12)	0.8 (.03)	13 (.50)
7 - 8	34.9 (1.38)	6.4 (.25)	4.8 (.19)	13 (.50)	4.0 (.15)	1.0 (.04)	19 (.75)
11 - 12	50.8 (2.00)	9.5 (.38)	6.4 (.25)	16 (.63)	4.5 (.18)	1.3 (.05)	22 (.87)
15 - 16	69.9 (2.75)	12.7 (.50)	6.4 (.25)	19 (.75)	6.4 (.25)	1.5 (.06)	25.5 (1.00)

### Part Number Selection

**M** Material and Finish  
**N** Steel, zinc plated  
**S** Stainless steel

**S** Size  
**3** 22 (0.87) Left Hand  
**4** 22 (0.87) Right Hand  
**7** 35 (1.38) Left Hand  
**8** 35 (1.38) Right Hand  
**11** 51 (2.00) Left Hand  
**12** 51 (2.00) Right Hand  
**15** 70 (2.75) Left Hand  
**16** 70 (2.75) Right Hand

**F6 - 23 - M S AW**



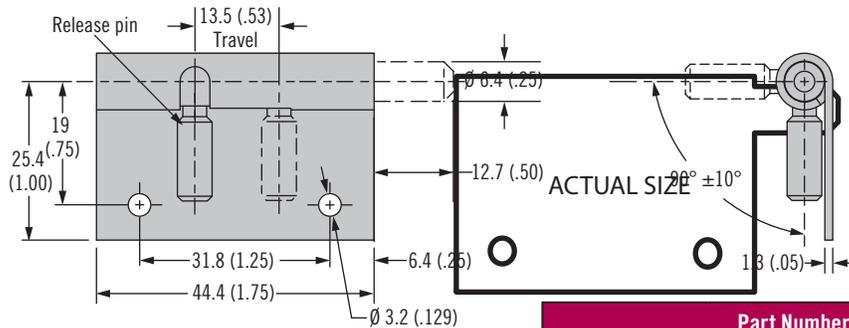
### Material and Finish

Steel, zinc plated or stainless steel

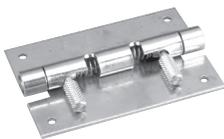


### Part Number

See table



Part Number		
Handling	Steel	Stainless Steel
Right (shown)	F6-20-N1A50WR	F6-20-S1A50WR
Left	F6-20-N1A50WL	F6-20-S1A50WL



• Locking feature for simple removal

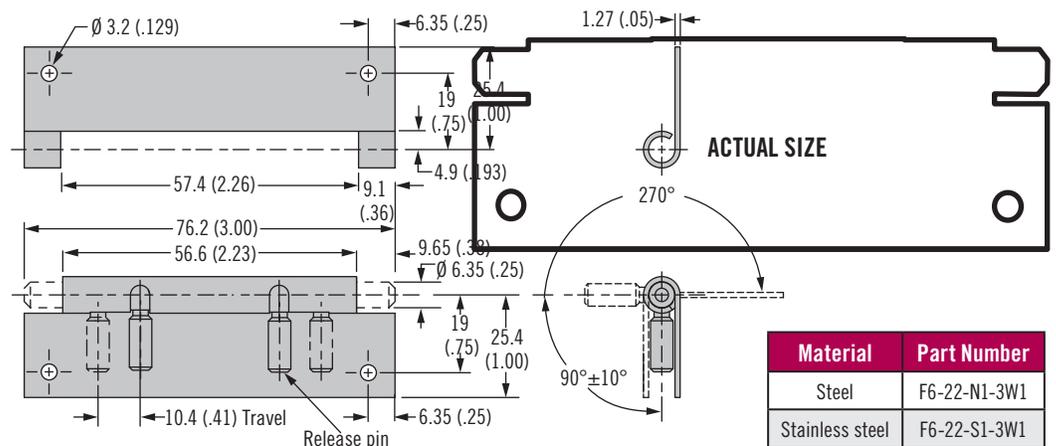
### Material and Finish

Steel, zinc plated or stainless steel



### Part Number

See table



Material	Part Number
Steel	F6-22-N1-3W1
Stainless steel	F6-22-S1-3W1

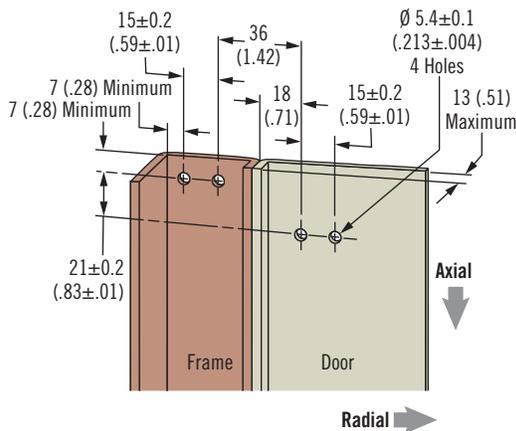
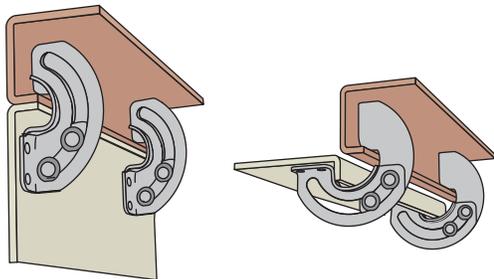
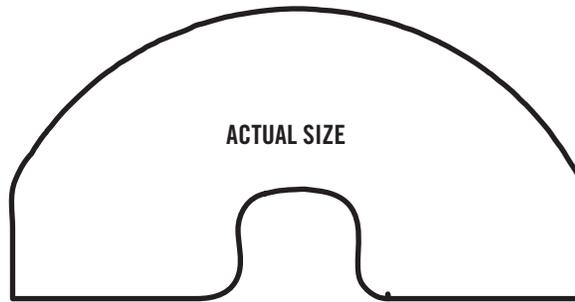
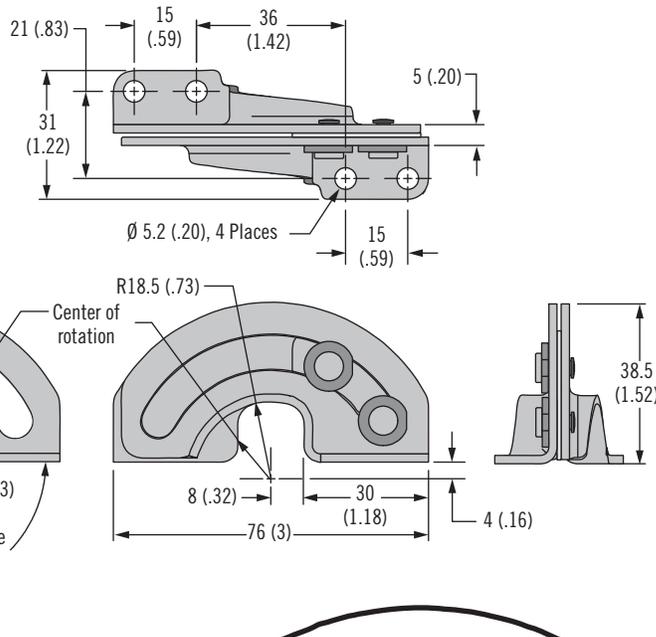


# R6 Hinge

Concealed · 90° Opening



Dimensions in millimeters (inch) unless otherwise stated



- Invisible when door is closed

### Material and Finish

Steel, zinc plated, or stainless steel

### Performance Details

Zinc Plated Steel

Radial load:

Maximum static load:

625 N (140 lbf)

Average ultimate load:

2235 N (502 lbf)

Axial load:

Maximum static load: 205 N (46 lbf)

Average ultimate load:

420 N (94 lbf)

Stainless Steel

Radial load:

Maximum static load:

525 N (118 lbf)

Average ultimate load:

3035 N (682 lbf)

Axial load:

Maximum static load: 185 N (42 lbf)

Average ultimate load:

475 N (107 lbf)

Maximum holding torque:

18.2 N·m (161 in·lbf)

Operating temperature range:

-40° C (-40° F) to 85° C (185° F)

### Installation Notes

Panel thickness exceeding

4 (.16) will require a 45° chamfer on both door and frame.

Screws not supplied.

Install using M5 (No. 10)

### Part Number

See table

Part Number	
Steel	R6-21-11
Stainless steel	R6-21-23

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

[www.southco.com/R6](http://www.southco.com/R6)





# R6 Hinge

## Concealed · 180° Opening

- Invisible when door is closed
- Door-stay for horizontal door & lid applications
- Corrosion-resistant materials available

### Material and Finish

Steel, zinc plated, or stainless steel

### Performance Details

Zinc Plated Steel

Radial load:

Maximum static load:

485 N (109 lbf)

Average ultimate load:

710 N (160 lbf)

Axial load:

Maximum static load: 100 N (23 lbf)

Average ultimate load:

295 N (66 lbf)

Maximum holding torque:

11.8 N·m (104 in·lbf)

Stainless Steel

Radial load:

Maximum static load:

505 N (114 lbf)

Average ultimate load:

1085 N (244 lbf)

Axial load:

Maximum static load: 165 N (37 lbf)

Average ultimate load:

345 N (78 lbf)

Operating temperature range:

-40° C (-40° F) to 85° C (185° F)

### Installation Notes

Screws not supplied.

Install using M5 (No. 10) screws or by welding.

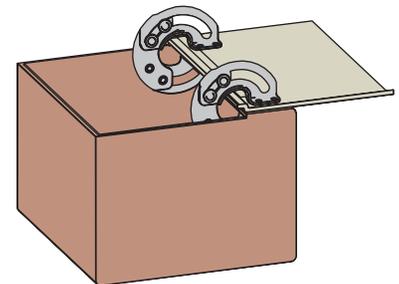
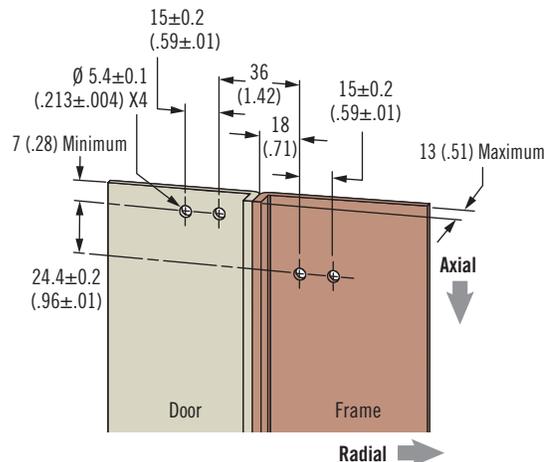
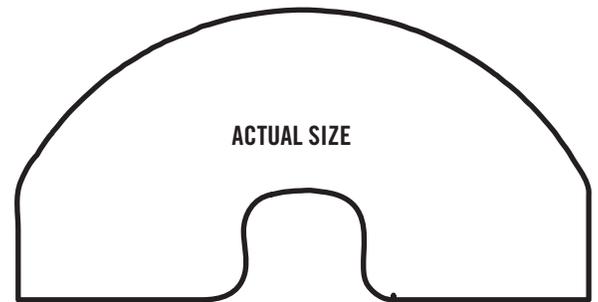
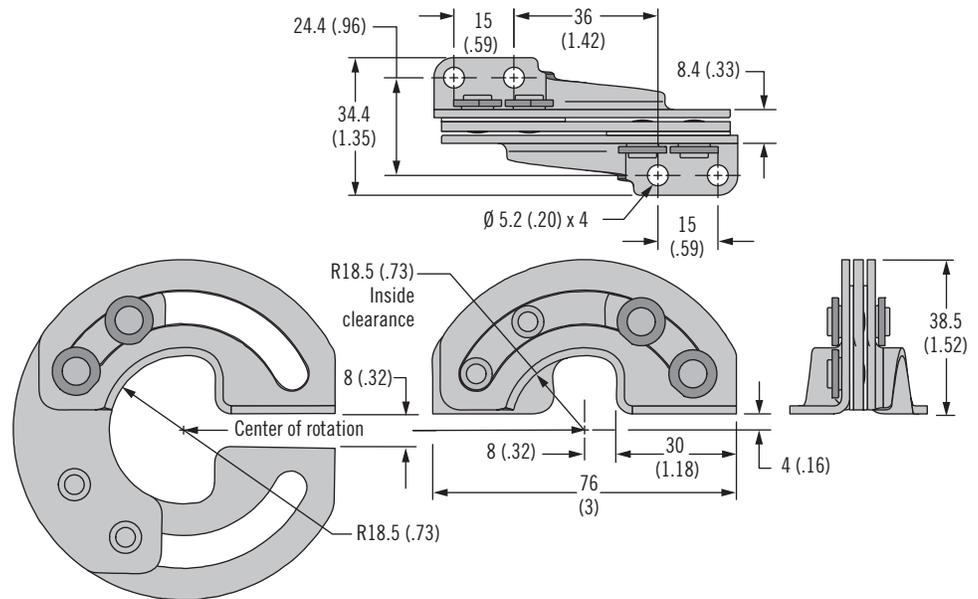
Maximum panel thickness is

4 (.16)

### Part Number

See table

Dimensions in millimeters (inch) unless otherwise stated



Part Number	
Steel	R6-20-11
Stainless steel	R6-20-23

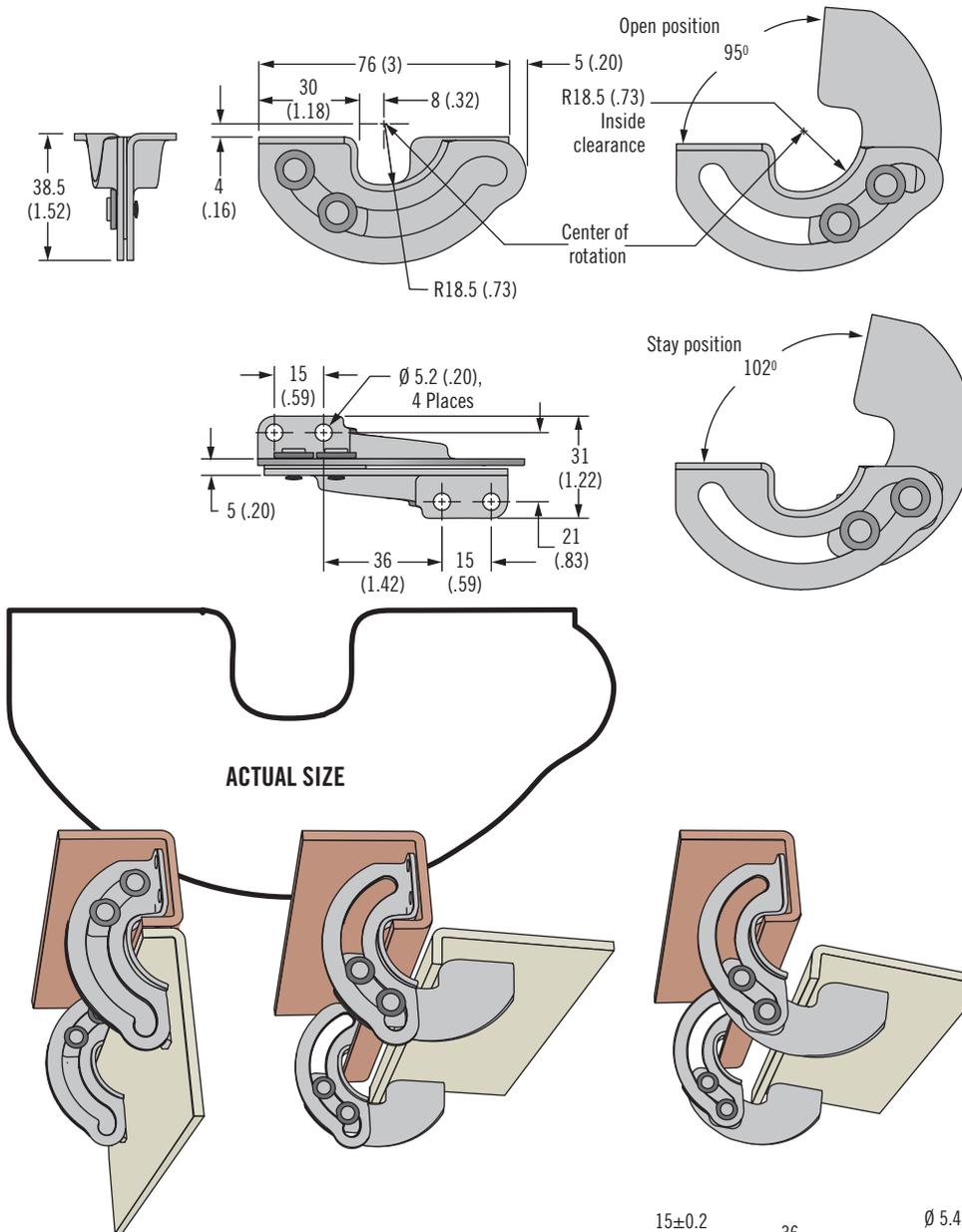


# R6 Hinge

## Concealed · Hold-open style



Dimensions in millimeters (inch) unless otherwise stated



- Invisible when door is closed
- Holds doors open without secondary mechanical support

### Material and Finish

Steel, zinc plated, or stainless steel

### Performance Details

\*(loads applied with hinge in stay position)

Zinc Plated Steel

Radial load:

Maximum static load: 155 N (35 lbf)

Average ultimate load: 405 N (91 lbf)

Axial load:

Maximum static load: 200 N (45 lbf)

Average ultimate load: 415 N (93 lbf)

Maximum holding torque:

11.8 N·m (104 in·lbf)

Operating temperature range:

-40°C (-40°F) to 85°C (185°F)

Stainless Steel

Radial load:

Maximum static load: 280 N (63 lbf)

Average ultimate load:

570 N (128 lbf)\*

Axial load:

Maximum static load: 305 N (69 lbf)

Average ultimate load:

430 N (97 lbf)

Maximum holding torque:

18.2 N·m (161 in·lbf)\*

Operating temperature range:

-40°C (-40°F) to 85°C (185°F)

### Installation Notes

Panel thickness exceeding 4 (.16) will require a 45° chamfer on both door and frame.

### Part Number

See table

Part Number	
Steel	R6-22-11
Stainless steel	R6-22-23

