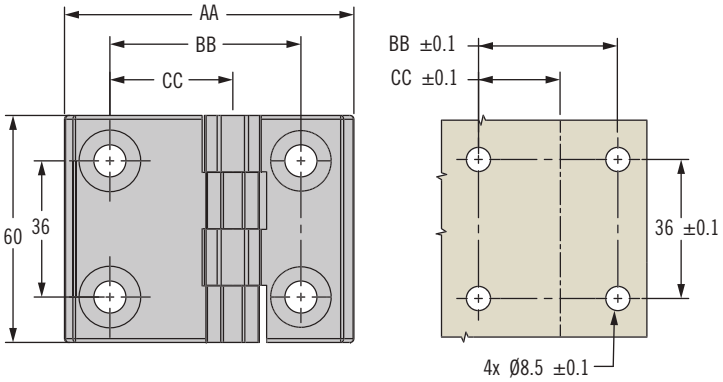
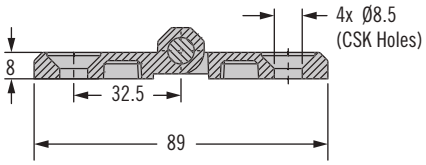
EH Hinges

Surface mount

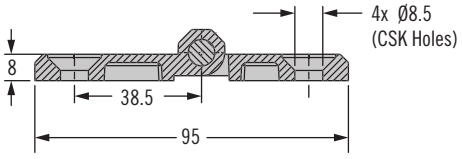


Product Code:
EH-DHFM-6089
Material: Zinc Alloy
Pin Material: SS-304
Opening Angle: 180º
Finish: Black Powder Coated



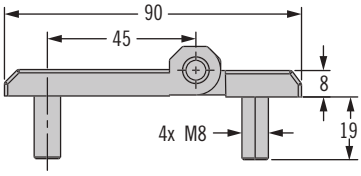
EH-DHFM-6089

Product Code:
EH-DHFM-6095
Material: Zinc Alloy
Pin Material: SS-304
Opening Angle: 180º
Finish: Black Powder Coated

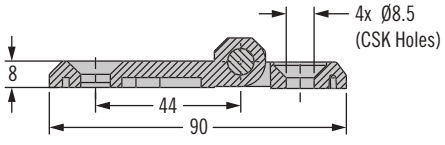


EH-DHFM-6095

Product Code:
EH-DHFM-6090-S
Material: Zinc Alloy
Pin Material: SS-304
Opening Angle: 180º
Finish: Black Powder Coated
Axial Load (kg): 60
Radial Load (kg): 81



EH-DHFM-6090-S



EH-DHFM-6090-2H

Product Code:
EH-DHFM-6090-2H
Material: Zinc Alloy
Pin Material: SS-304
Opening Angle: 180º
Finish: Black Powder Coated

Product Code	Description	(AA)	(BB)	(CC)	(DD)
EH-DHFM-6089	CSK hole + CSK hole	89	65	32.5	-
EH-DHFM-6095	CSK hole + CSK hole	95	71	38.5	-
EH-DHFM-6090-S	Stud + Stud	90	63	45	-
EH-DHFM-6090-2H	CSK hole + CSK hole	90	62	44	-

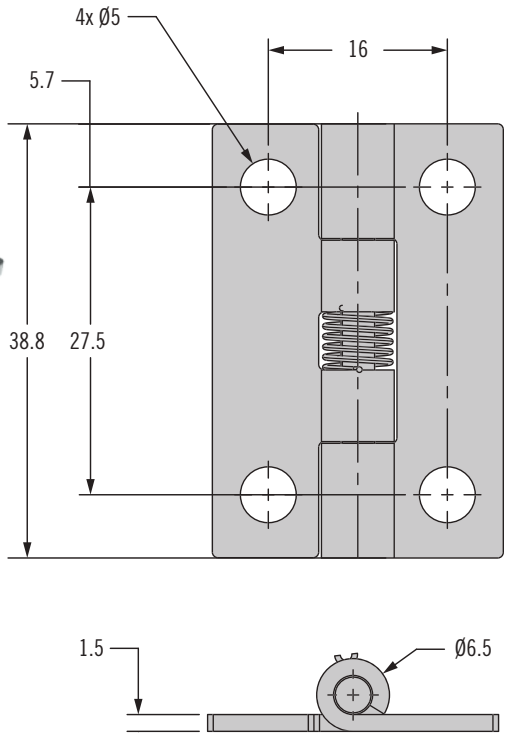
Dimensions in millimeters unless otherwise stated

N6 Hinges

Spring Return Hinge

Product Code:
N6-DHSM-3826
Material: Steel
Finish: Nickel Zinc Plating
Rotation Angle: 110º

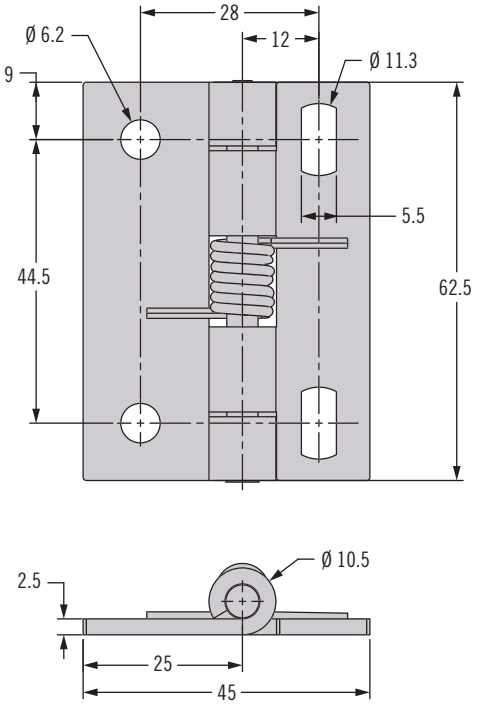
Product Code:
N6-DHSM-3826-SS
Material: Stainless Steel
Finish: Electro Polish Bright
Rotation Angle: 110º



Spring Return Hinge

Product Code:
N6-DHSM-6346
Material: Steel
Finish: Nickel Zinc Plating
Rotation Angle: 110º
Working Load (Kg):
Axial : 25
Radial : 23

Product Code:
N6-DHSM-6346-SS
Material: Stainless Steel
Pin Material: Stainless Steel
Finish: Electro Polish Bright
Rotation Angle: 110º

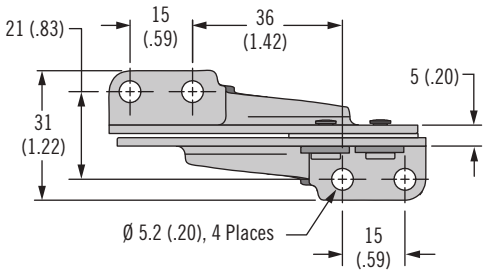


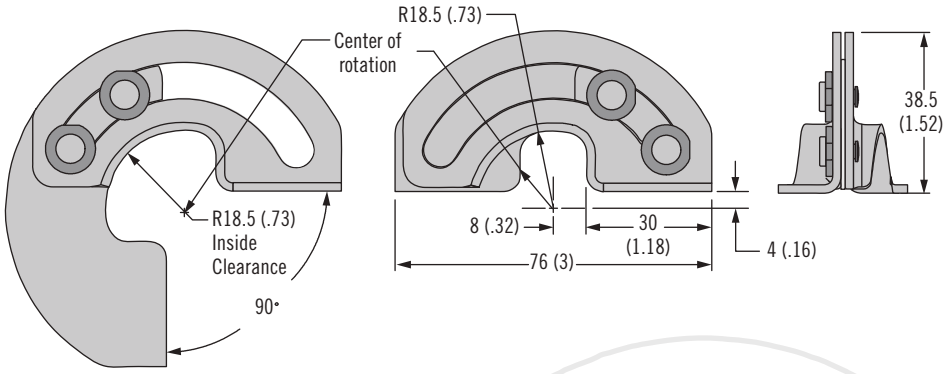
Dimensions in millimeters unless otherwise stated

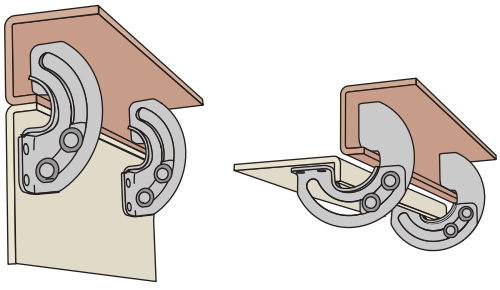
southco®

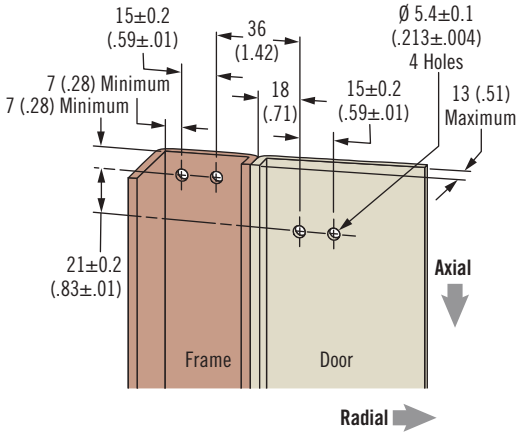
R6 Hinge

Concealed · 90° Opening









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

- **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

R6 Hinge

Concealed · 180º 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:
-40º C (-40º F) to 85º C (185º F)

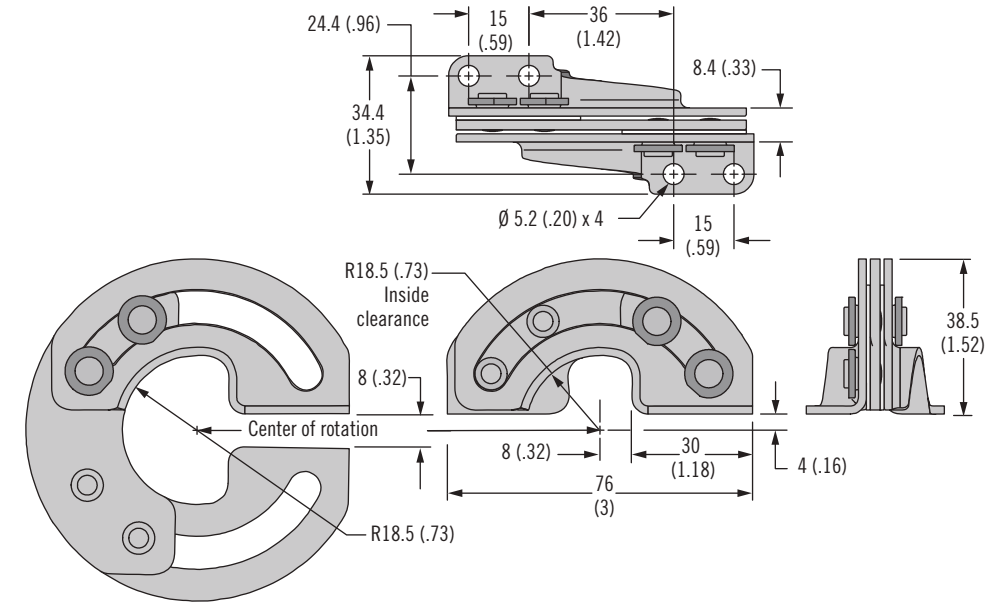
Installation Notes

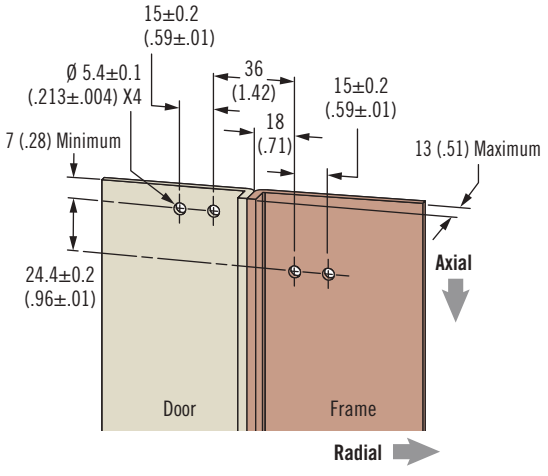
Screws not supplied.
Install using M5 (No. 10) screws or by welding.

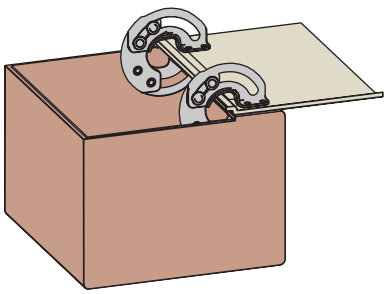
Maximum panel thickness is
4 (.16)

Part Number

See table





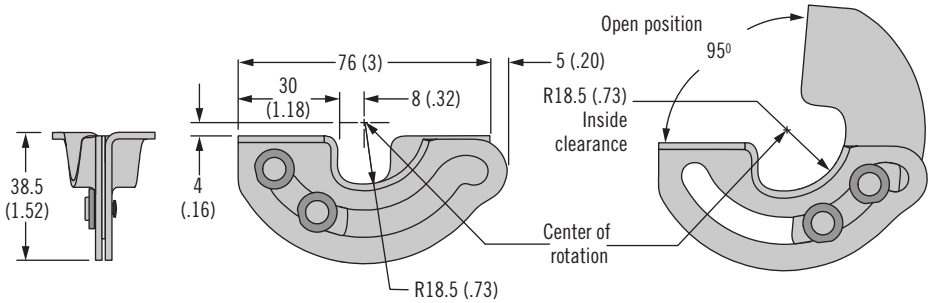


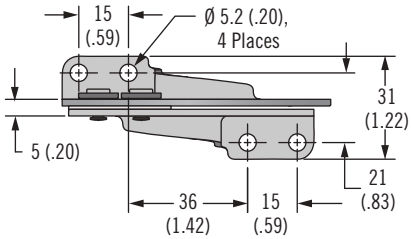
Part Number	
Steel	R6-20-11
Stainless steel	R6-20-23

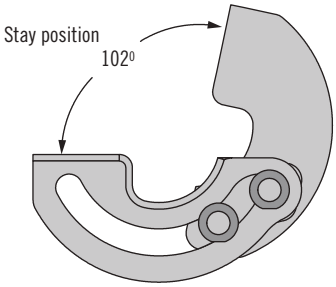
Dimensions in millimeters (inch) unless otherwise stated

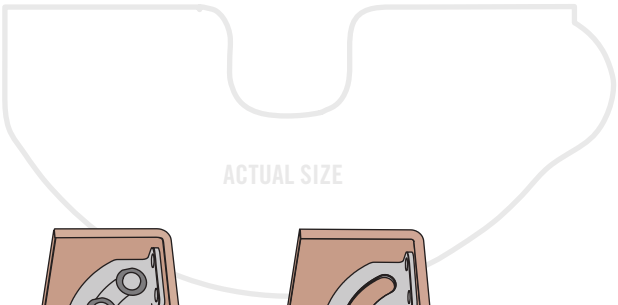
R6 Hinge

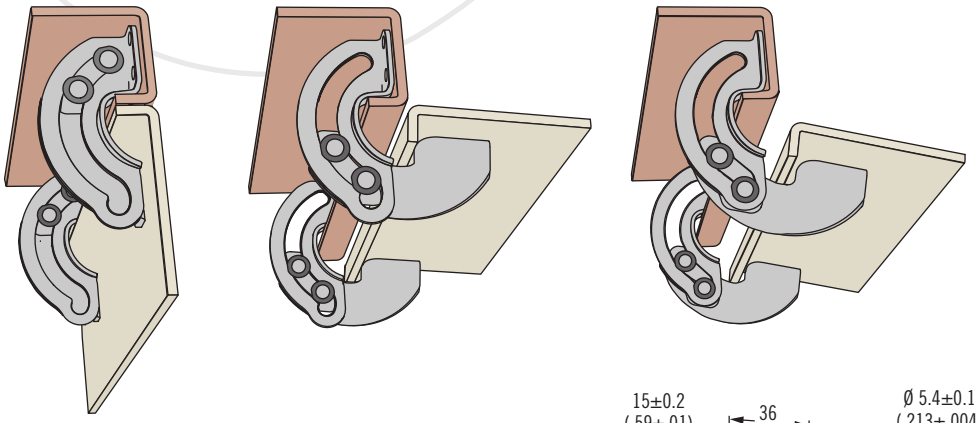
Concealed · Hold-open style

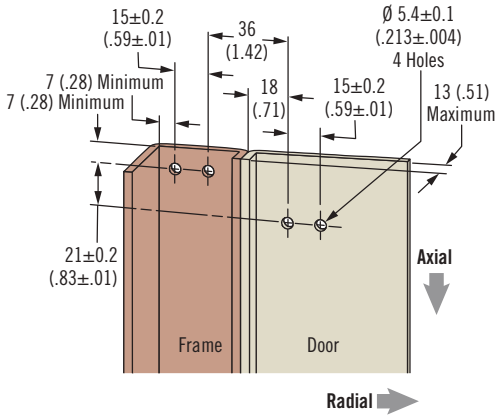












Part Number	
Steel	R6-22-11
Stainless steel	R6-22-23

- **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

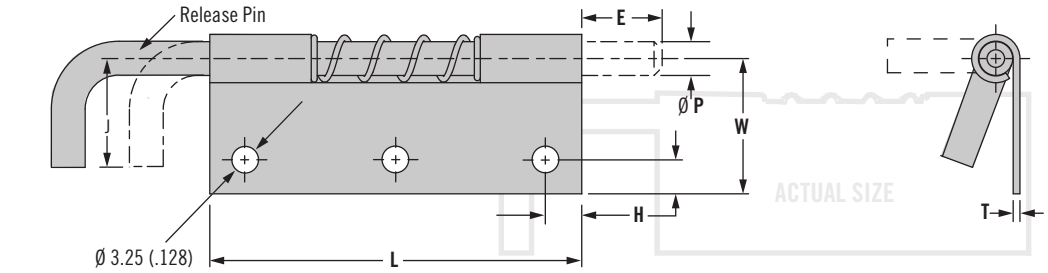
See table

F6 Hinge

Door removal

Material and Finish

Steel, zinc plated or stainless steel



S Size	L	E	H	J	P	T	W
3 - 4	22.2 (.88)	4 (.16)	4.0 (.16)	10 (.39)	3.2 (.13)	0.8 (.03)	13 (.50)
7 - 8	34.9 (1.38)	6.4 (.25)	4.8 (.19)	13 (.50)	4.0 (.16)	1.0 (.04)	19 (.75)
11 - 12	50.8 (2.00)	9.5 (.38)	6.4 (.25)	16 (.63)	4.8 (.19)	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

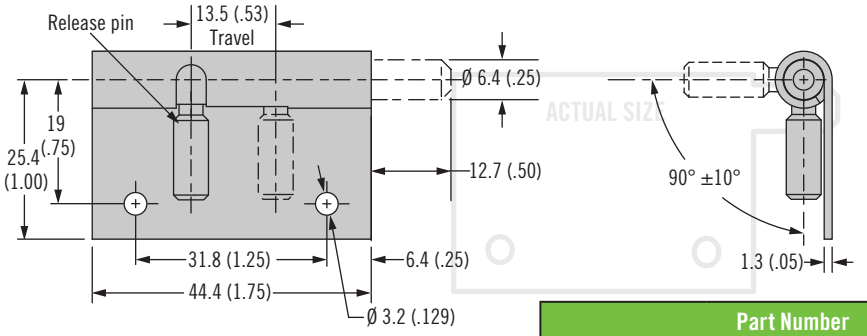
F6 - 23 - M S AW

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

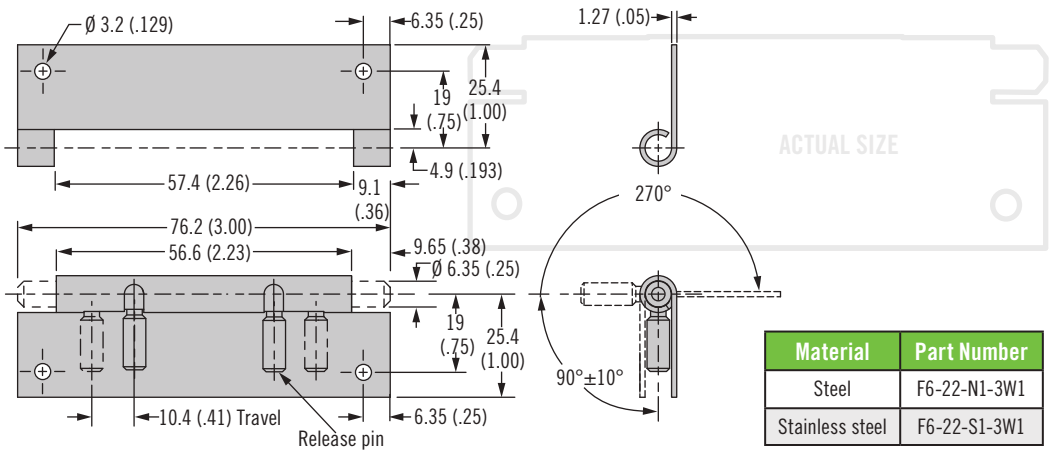
- **Locking feature for simple removal**

Material and Finish

Steel, zinc plated or stainless steel

Part Number

See table

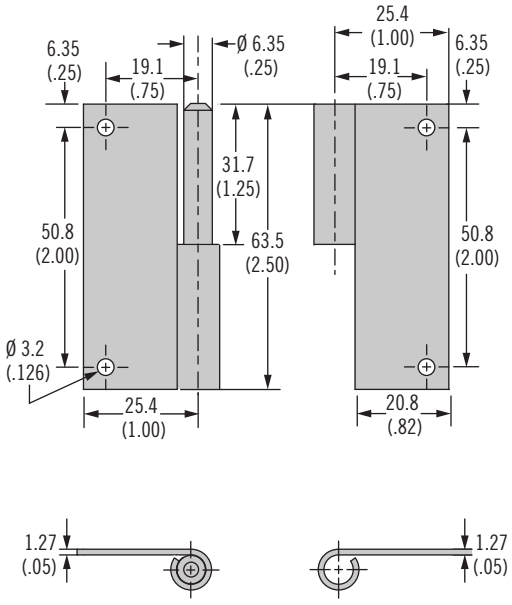


Material	Part Number
Steel	F6-22-N1-3W1
Stainless steel	F6-22-S1-3W1

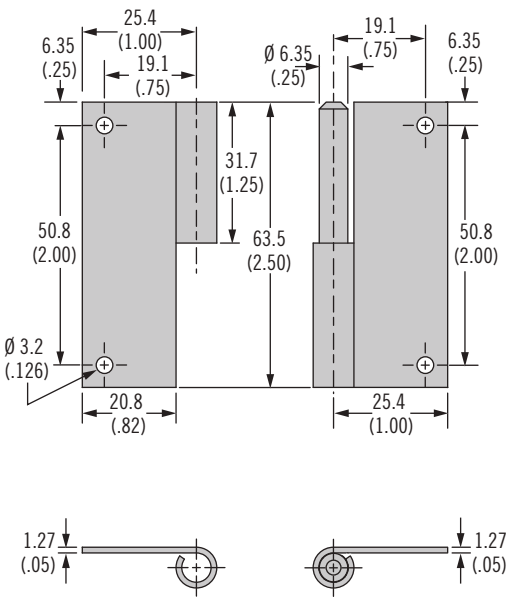
Dimensions in millimeters (inch) unless otherwise stated

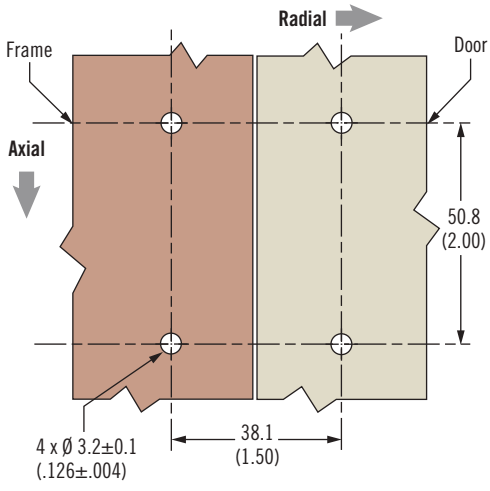
96 Hinge
Lift-off

Type A



Type B





Type "A" application shown

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

Material and Finish

Steel, zinc plated or stainless steel

Part Number

See table

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

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

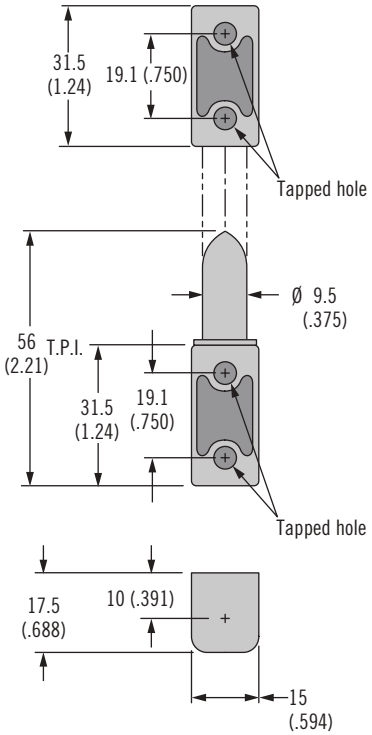
	Radial Load	Axial Load
Maximum static load	1300 N (300 lbf)	2200 N (500 lbf)
Average ultimate load	3300 N (750 lbf)	9300 N (2100 lbf)

Installation Notes

Screws not supplied.
Maximum tightening torque of screw: 8.5 N•m (75 in•lbf)

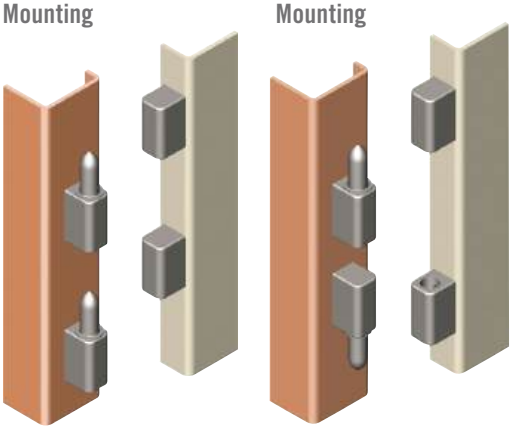
Calculate screw length using the following formula:
Door thickness + 5 (.200)

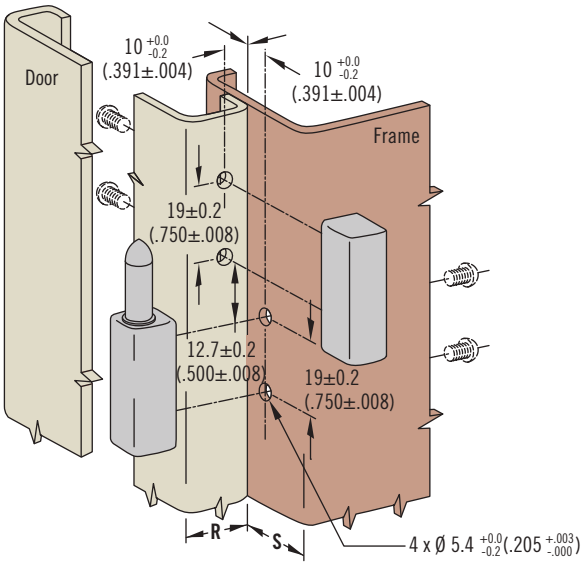
In-line mount preparation:
To allow for 180° rotation R or S must be < 25.4 (1.00).

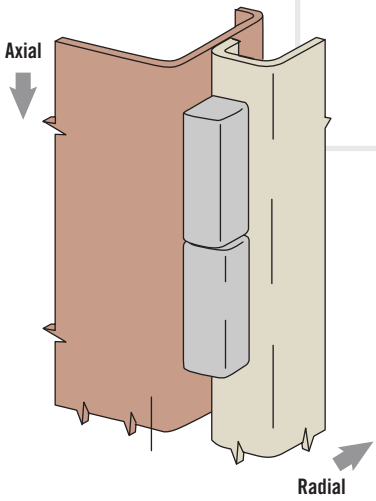


For Lift-Off Mounting

For Non Lift-Off Mounting







ACTUAL SIZE

Part Number

See Table

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

Dimensions in millimeters (inch) unless otherwise stated

96 Hinge

Lift-off · Offset · Zinc

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

Material and Finish

Zinc alloy, black powder coated

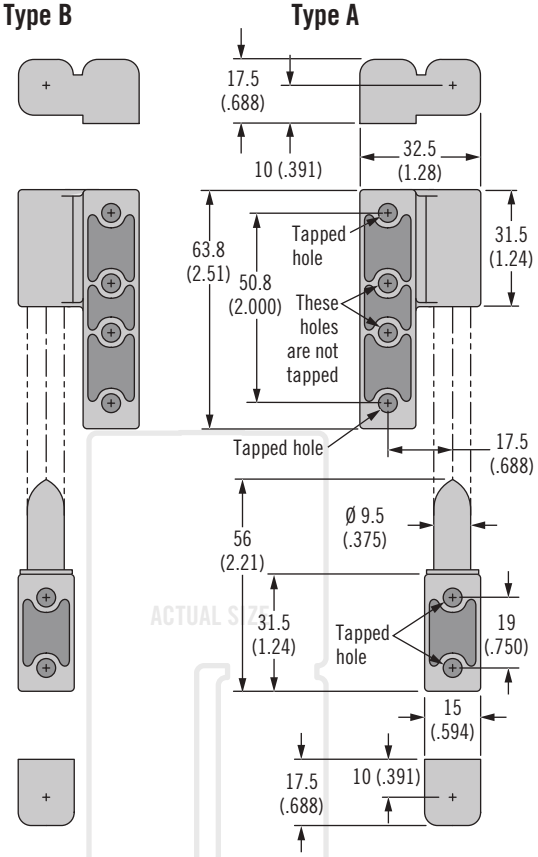
Performance Details

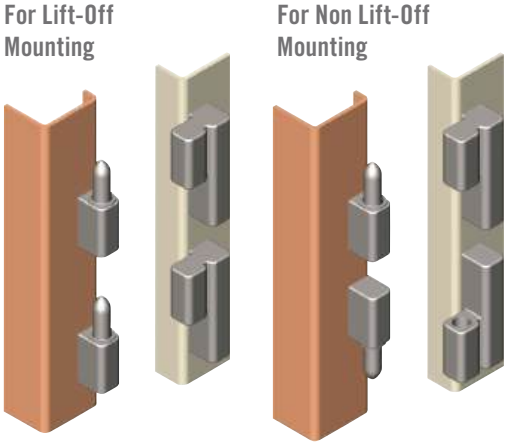
	Radial Load	Axial Load
Maximum static load	1300 N (300 lbf)	2200 N (500 lbf)
Average ultimate load	3300 N (750 lbf)	9300 N (2100 lbf)

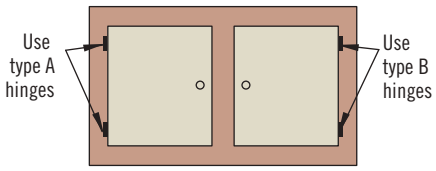
Installation Notes

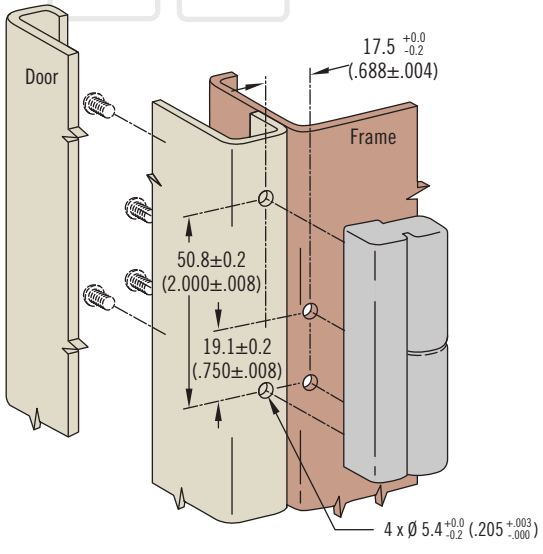
Screws not supplied.
Maximum tightening torque of screw: 8.5 N•m (75 in•lbf)

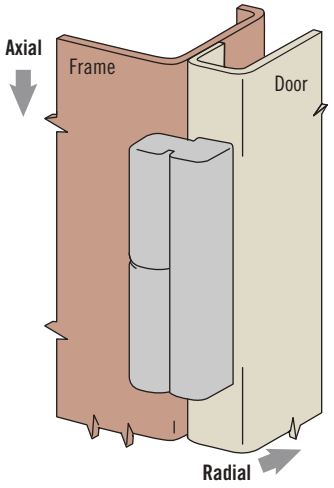
Calculate screw length using the following formula:
Door thickness + 10 (.400)











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

- **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)

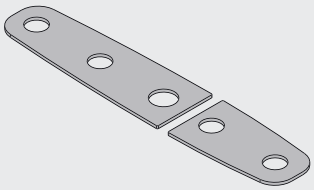
Axial Load
Maximum static load:
Zinc alloy: 2200 N (500 lbf)
Stainless steel: 5000 N (1120 lbf)

Installation Notes

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

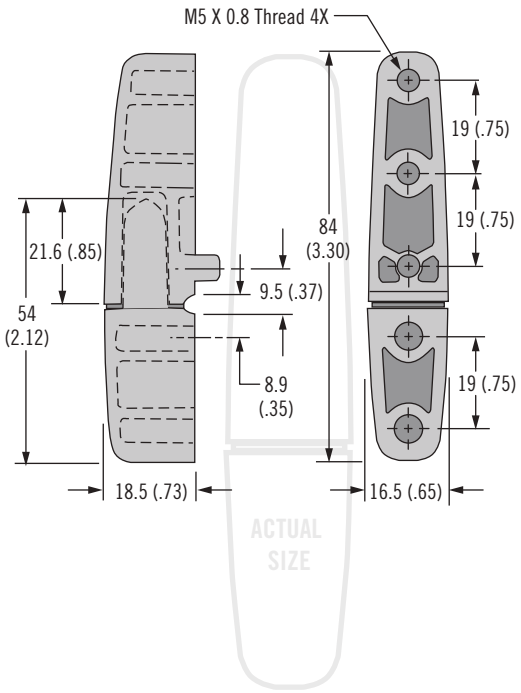
Accessories

Black EPDM gasket kit 96-0-73469 (order separately)

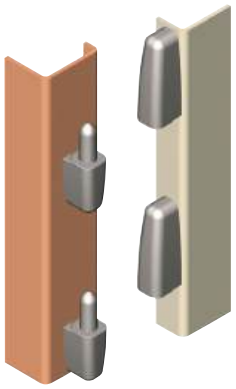


Part Number

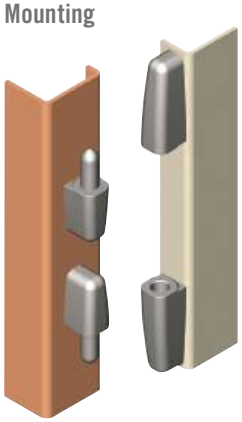
See table

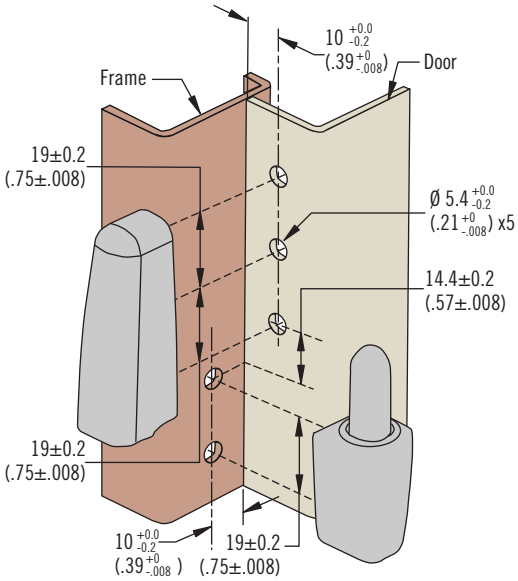


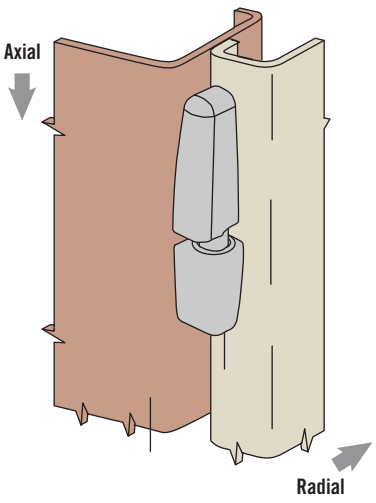
For Lift-Off Mounting



For Non Lift-Off Mounting







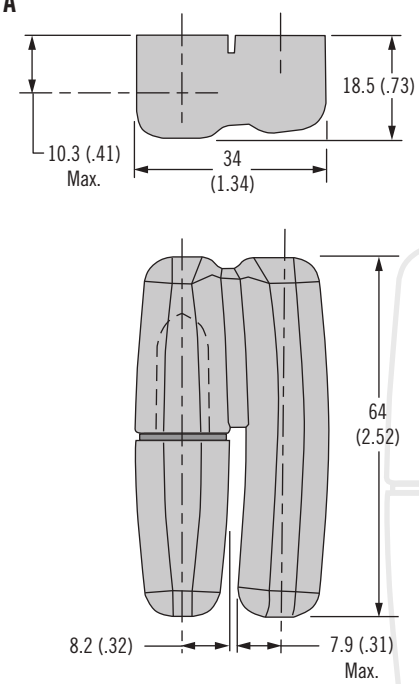
Material & Finish	Part Number
Zinc alloy, bright chrome	96-MA-80-10
Zinc alloy, black powder coated	96-MA-80-50
Zinc alloy, satin chrome	96-MA-80-20
Stainless steel, polished	96-MA-80-24

Dimensions in millimeters (inch) unless otherwise stated

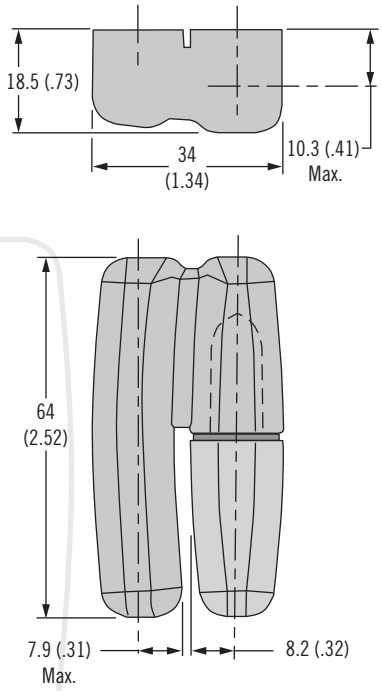
96 Hinge

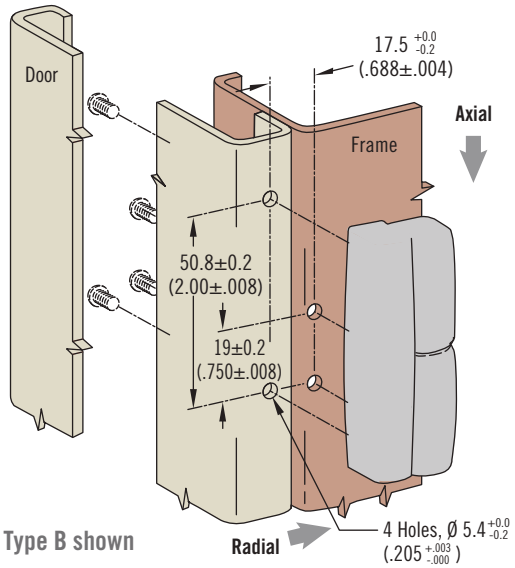
Lift-off · Offset · Zinc and stainless steel

Type A

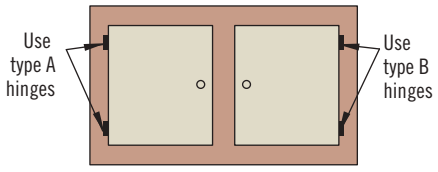


Type B

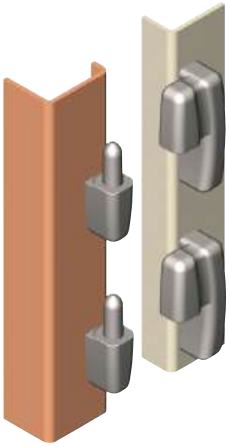




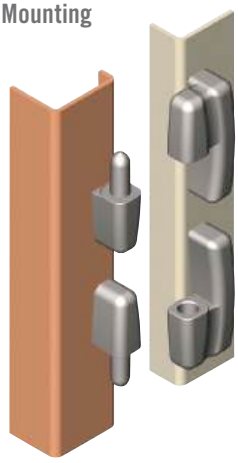
Type B shown



For Lift-Off Mounting



For Non Lift-Off Mounting



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

- **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)

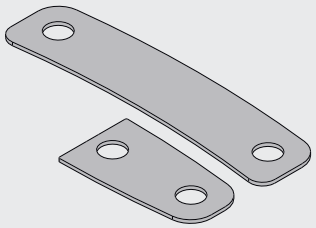
Axial Load
Maximum static load:
Zinc alloy: 2200 N (500 lbf)
Stainless steel: 5000 N (1120 lbf)

Installation Notes

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

Accessories

Black EPDM gasket kit 96-25-8A-02 (order separately)



Part Number

See table

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

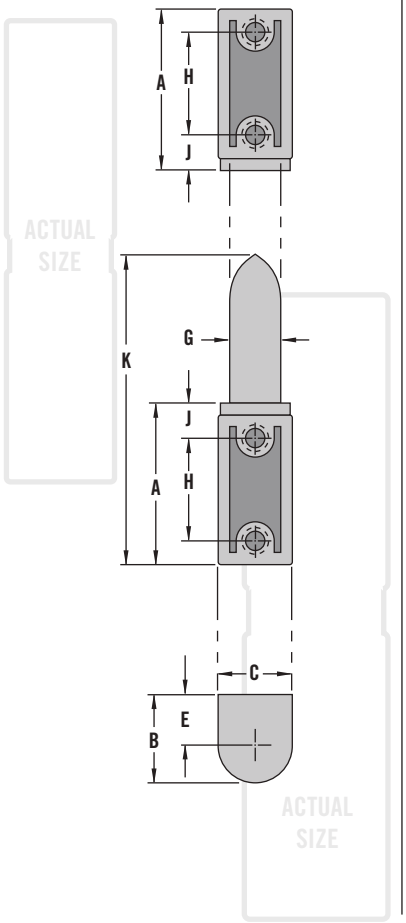
Glass-filled nylon, black

Performance Details

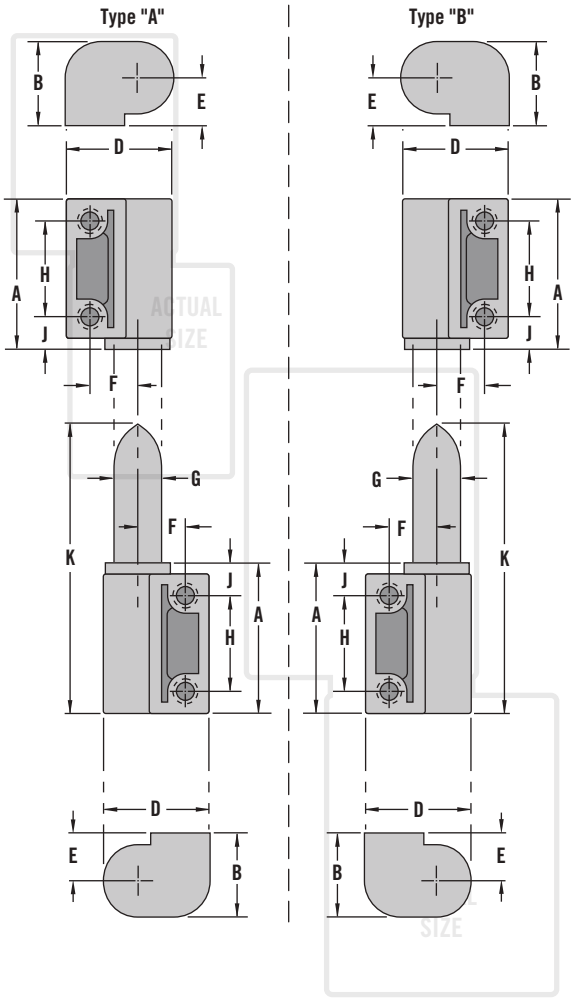
300 Series	Radial Load	Axial Load
Maximum static load	670 N (150 lbf)	1560 N (350 lbf)
Average ultimate load	1100 N (250 lbf)	2500 N (550 lbf)

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)

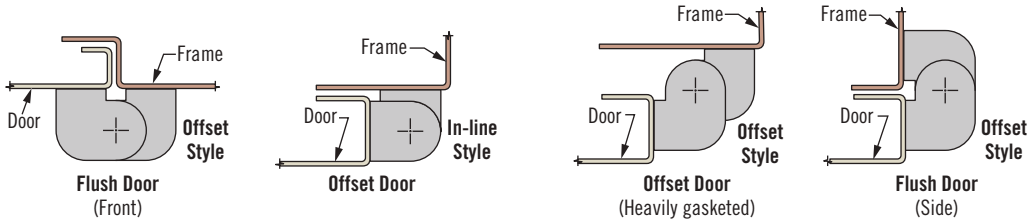
In-Line Knuckle Style



Offset Knuckle Style



Mounting variations



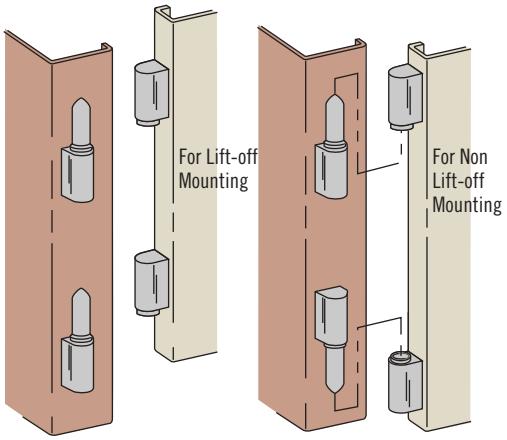
Part Number

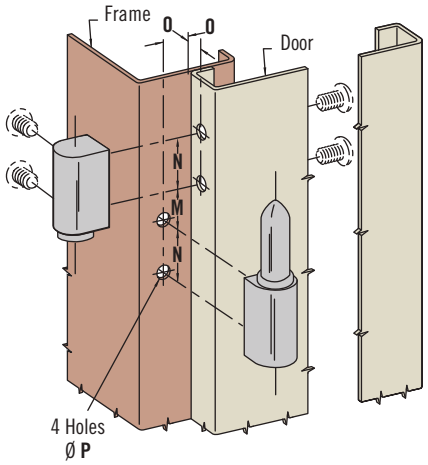
See table

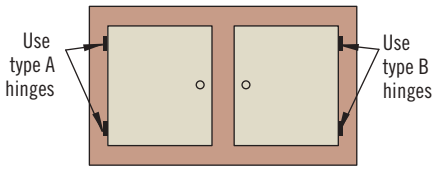
Series	Tapped Hole	Dimensions								Part Number		
		A	B	C	D	E, F & G	H	J	K	In-Line Knuckle Style	Offset Knuckle Style	
											Type "A"	Type "B"
300	M5	31 (1.22)	16.7 (.66)	14.3 (.56)	21.5 (.84)	9.5 (.38)	19 (.75)	7 (.28)	58 (2.28)	96-50-300-11	96-50-310-11	96-50-320-11
	10-24									96-10-300-11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

Dimensions in millimeters (inch) unless otherwise stated

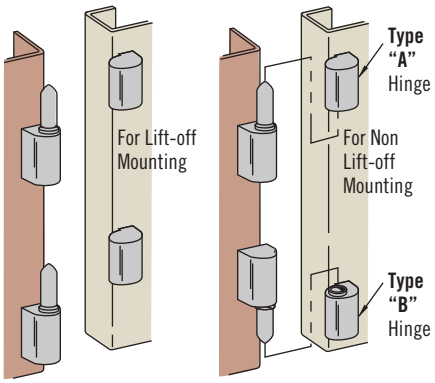
In-Line Knuckle Style

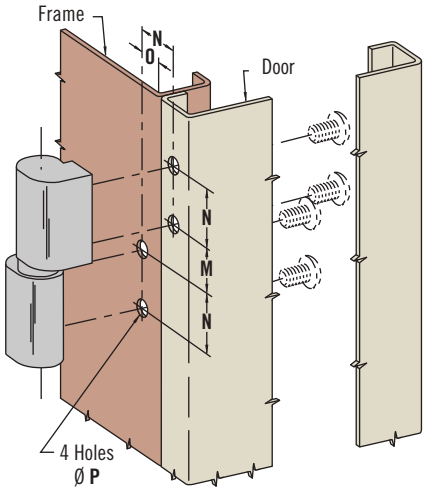


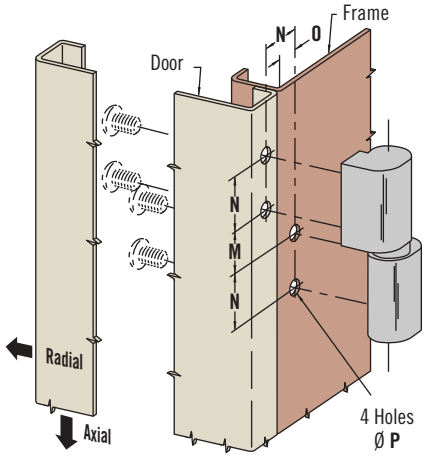




Offset Knuckle Style







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.

Series	Installation Dimensions			
	M	N	O	P
300	14.3 $^{+0.0}_{-0.3}$ (.563±.008)	19 $^{+0.2}_{-0.1}$ (.750±.008)	9.5 $^{+0.3}_{-0.1}$ (.375±.005)	5.4 $^{+0.1}_{-0.0}$ (.205 $^{+.003}_{-.000}$)
400	19.0 $^{+0.0}_{-0.3}$ (.750±.008)	25.5 $^{+0.1}_{-0.2}$ (1.000±.008)	12.7 $^{+0.2}_{-0.1}$ (.500±.005)	6.7 $^{+0.1}_{-0.0}$ (.264 $^{+.003}_{-.000}$)

96 Hinge

Lift-off · In-line · Plastic

- **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)

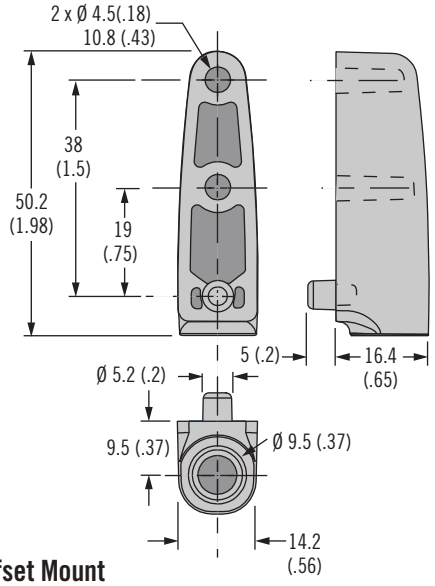
Offset mount preparation:
To allow for 180° rotation A or B must be 8.5±1 (.33±.04)

Part Number

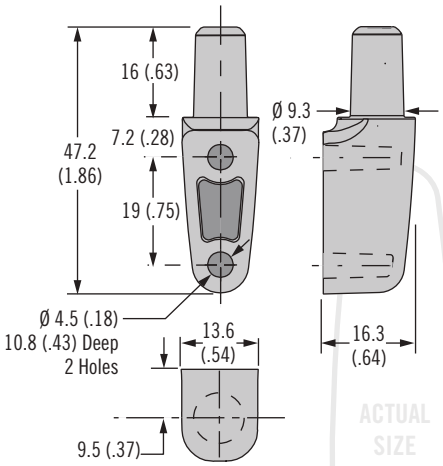
See table

Order pin, receiver and 4x screw separately

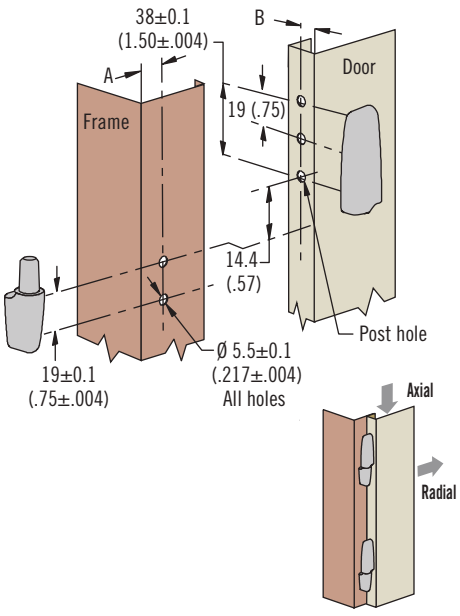
Receiver



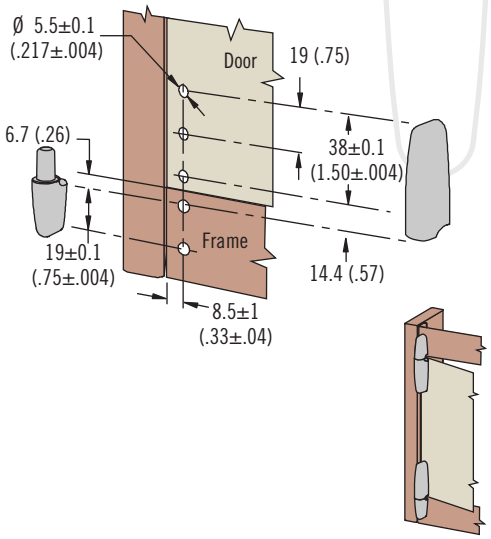
Pin

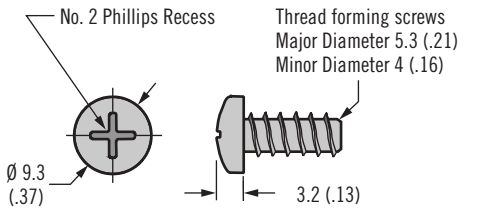


Offset Mount



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

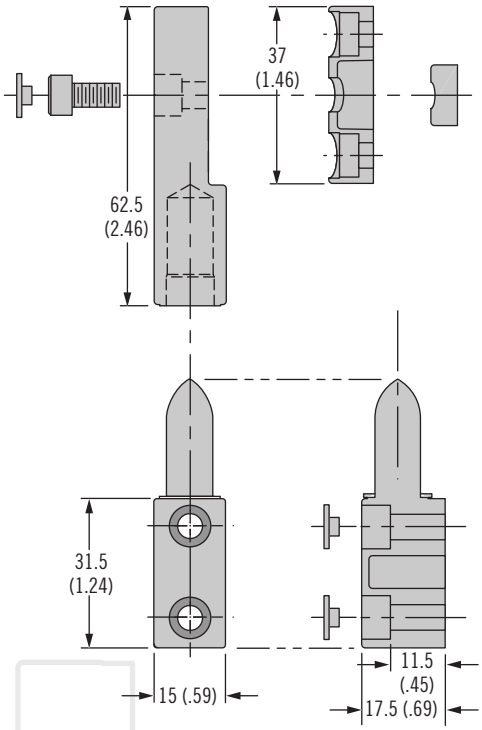
Finish	Part Number	
	Pin	Receiver
Black	96-710	96-720
Chrome	96-711	96-721

Dimensions in millimeters (inch) unless otherwise stated

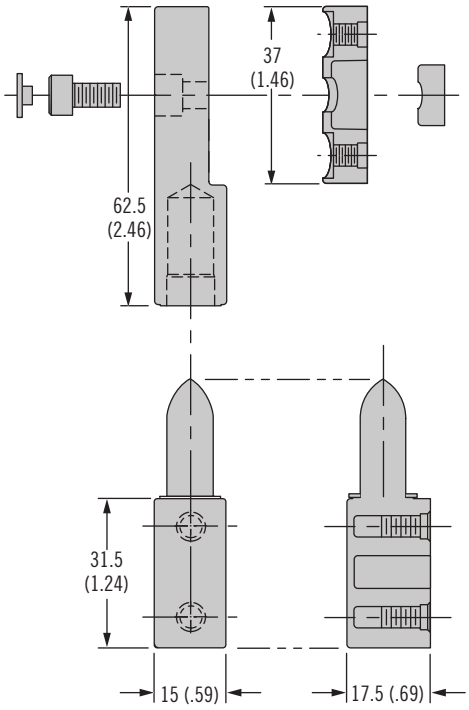
96 Hinge

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

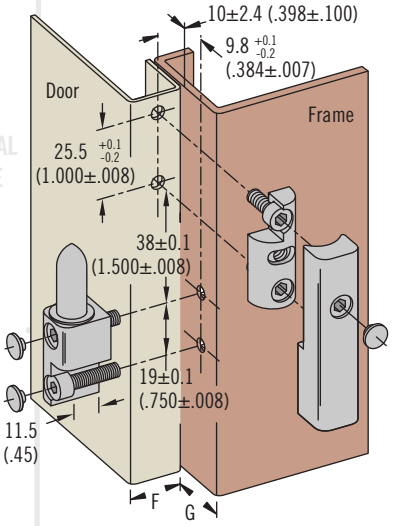
Front Mount

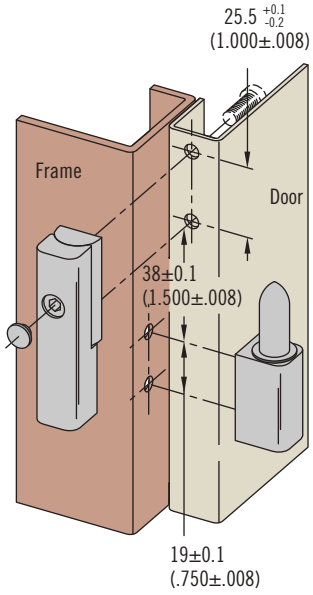


Concealed Mount



ACTUAL SIZE





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

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

Material and Finish

Zinc alloy, black powder coated

Installation Notes

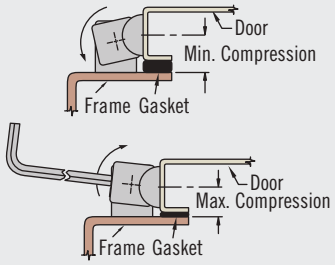
Screws not supplied.
Maximum screw length equals door or frame thickness plus 7.5 (.30)

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°



Part Number

See table

96 Hinge

Lift-off · In-line · Zinc

- **Allows for quick, easy door removal**
- **Concealed installation**

Material and Finish

Zinc alloy, black powder coated

Performance Details

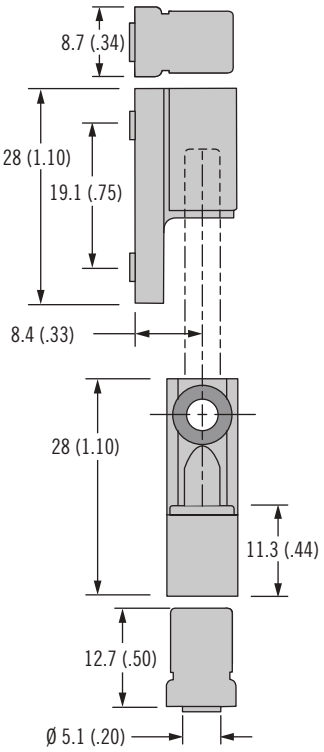
	Radial Load	Axial Load
Maximum static load	1100 N (250 lbf)	1250 N (280 lbf)
Average ultimate load	2400 N (530 lbf)	2600 N (580 lbf)

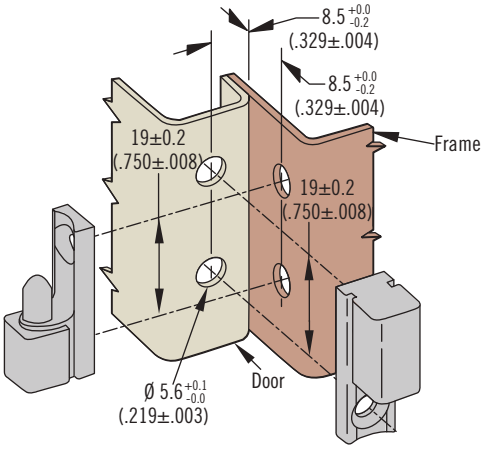
Installation Notes

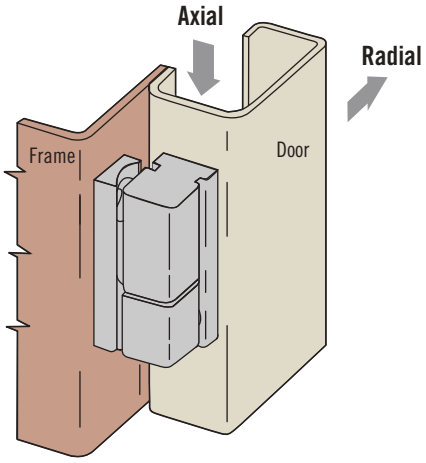
Screws not supplied.
Recommended tightening torque for mounting screws:
1.1 N•m (10 in•lbf)

Calculate screw length using the following formula:
Door / frame thickness +5 (.20)

In-Line







Part Number

See table

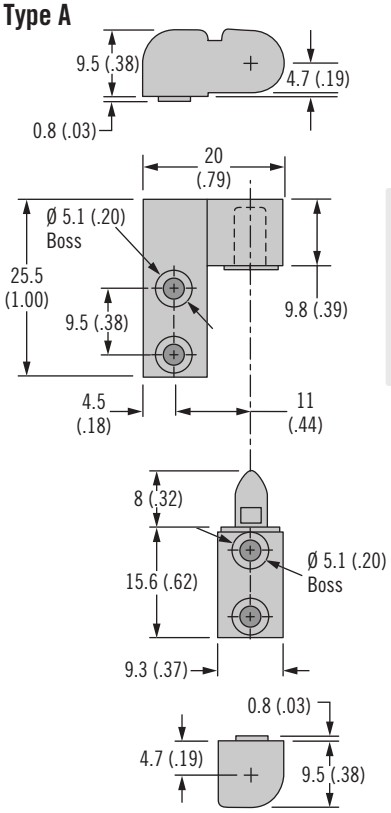
Tapped Hole	Part Number
Imperial 6-32	96-110
Metric M4 x 0.7	96-140

Dimensions in millimeters (inch) unless otherwise stated

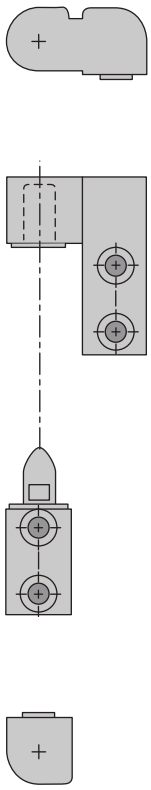
96 Hinge

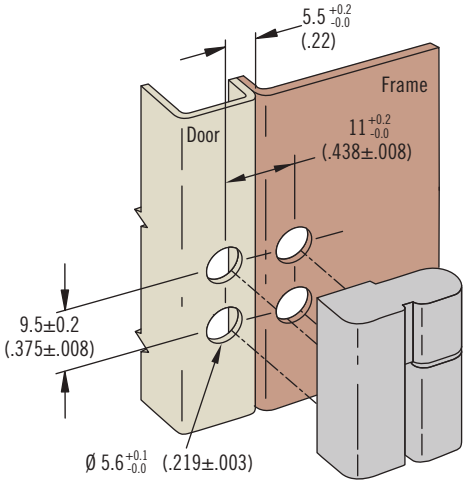
Lift-off · Offset · Zinc

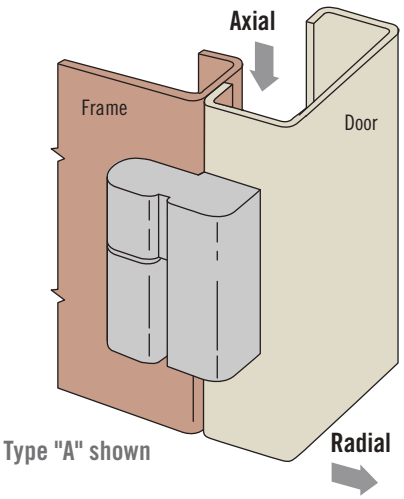
Offset Type A



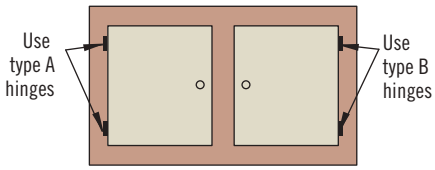
Offset Type B







Type "A" shown



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

- **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)

Part Number

See table

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)

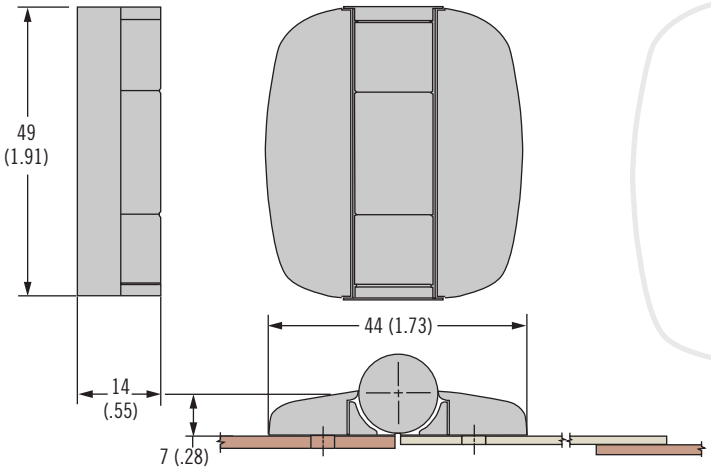
Cycle life: 10,000 cycles

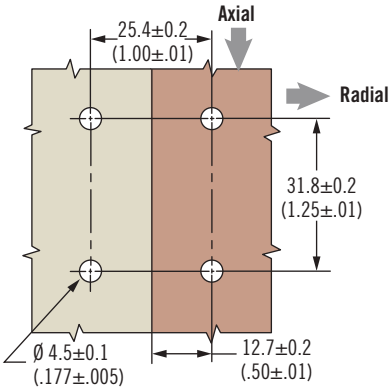
Operating temperature range:
-20 °C (0° F) to 80° C (180° F)

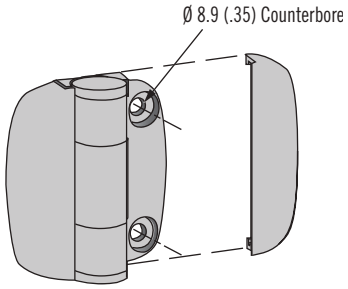
Installation Notes

Screws not supplied

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

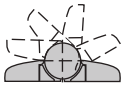
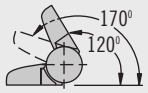






Part Number

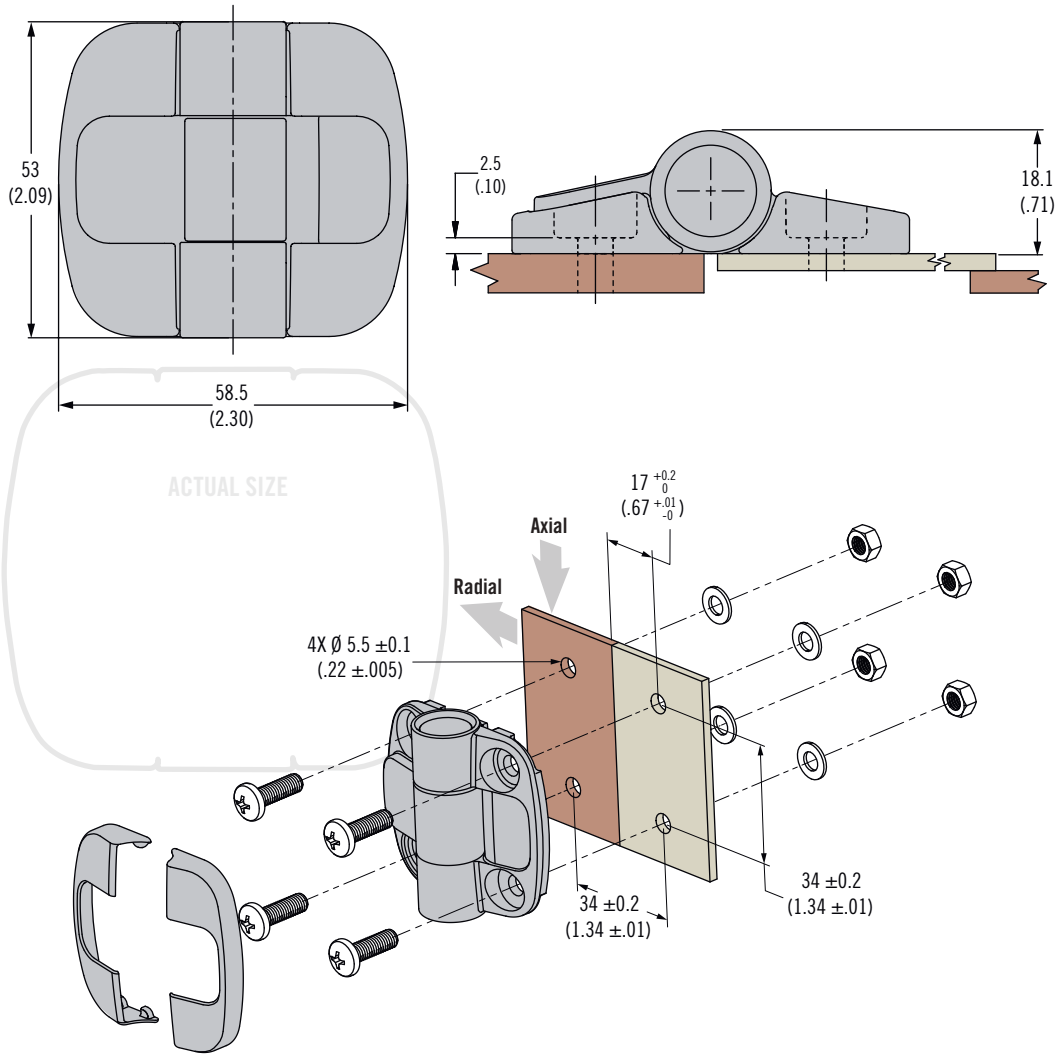
See table

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

Dimensions in millimeters (inch) unless otherwise stated

C6 Hinge

Position control · Detent



Type	Positioning Torque N•m (in•lbf)	Part Number	
		Black	White
No Detents	Free operating	C6-220	C6-220-1
80 Degree	0.7 (6)	C6-221	C6-221-1
	1.1 (10)	C6-222	C6-222-1
	1.7 (15)	C6-223	C6-223-1
115 Degree	0.7 (6)	C6-224	C6-224-1
	1.1 (10)	C6-225	C6-225-1
	1.7 (15)	C6-226	C6-226-1
150 Degree	0.7 (6)	C6-227	C6-227-1
	1.1 (10)	C6-228	C6-228-1
	1.7 (15)	C6-229	C6-229-1

- **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 or white
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

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)

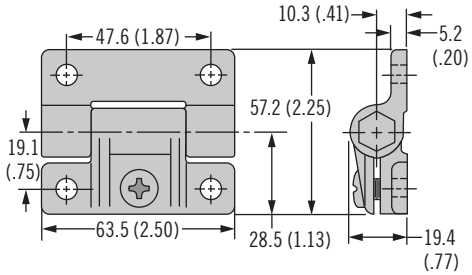
Installation Notes

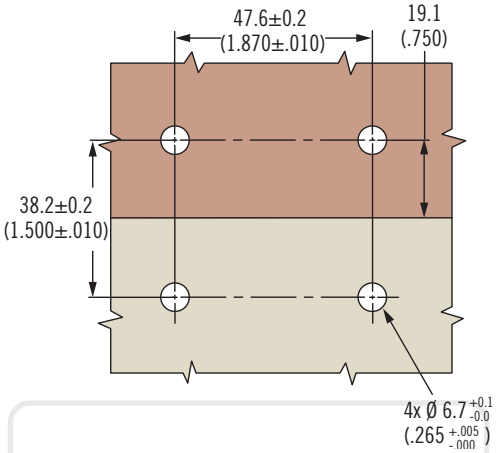
Mount with:
Large: M6 (1/4-20)
Medium: M4 (8-32)
(screws not supplied)

Part Number

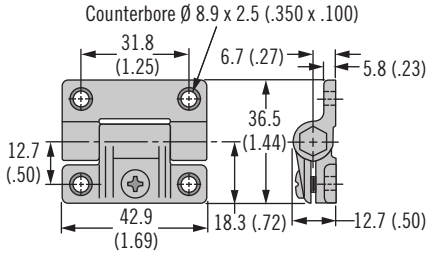
See table

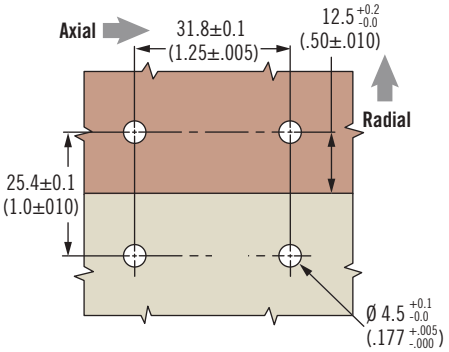
Large



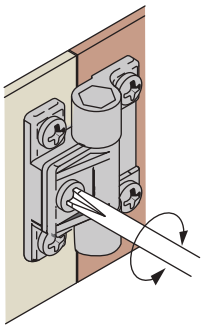


Medium





Torque Adjustment

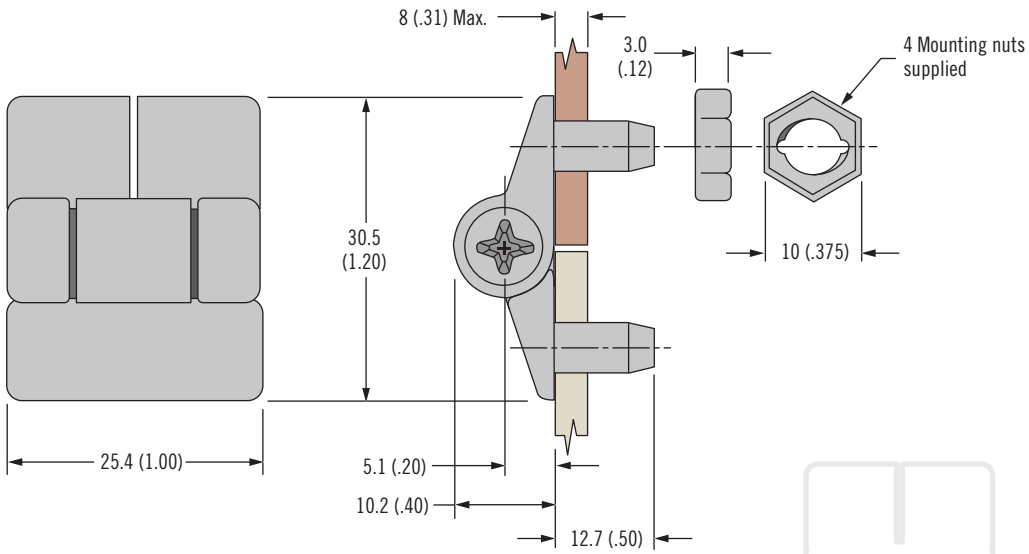


Part Number		
Color	**Large**	**Medium**
Black	E6-10-501-20	E6-10-301-20
White	E6-10-501-10	E6-10-301-10

Dimensions in millimeters (inch) unless otherwise stated

E6 Hinge

Position control · Adjustable torque



ACTUAL SIZE

- **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)

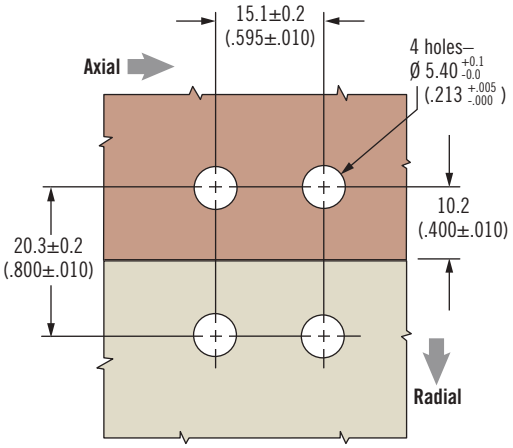
Maximum prevailing torque of hinge:
0.25 N•m (2.2 in•lbf)

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

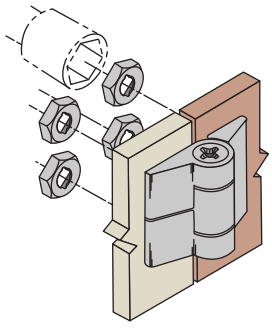
Notes

Packaging: One hinge and four mounting nuts per bag

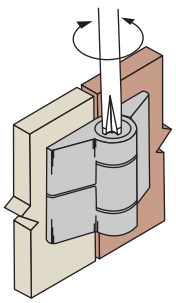
1. Prepare door and frame



2. Mount



3. Adjust torque



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

Part Number

See table

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)

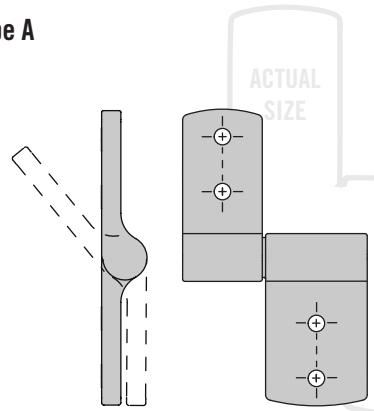
Thru hole install with M3 (No. 4) screws (not supplied)

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

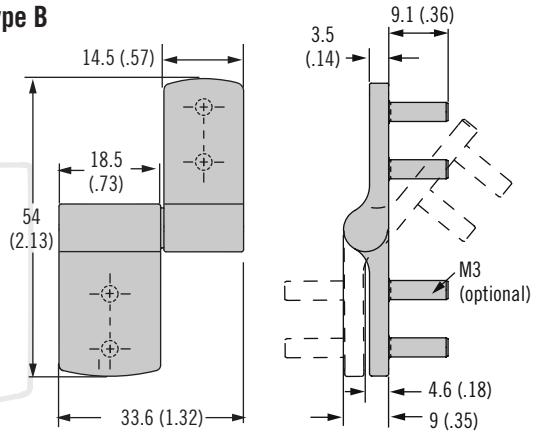
Part Number

See table

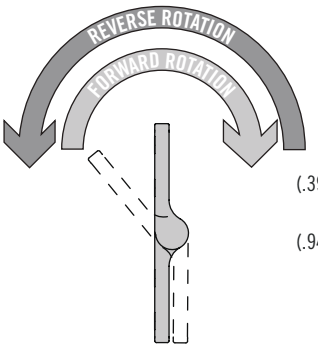
Type A



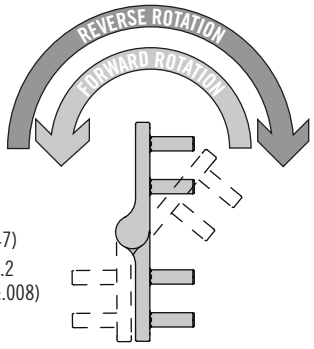
Type B

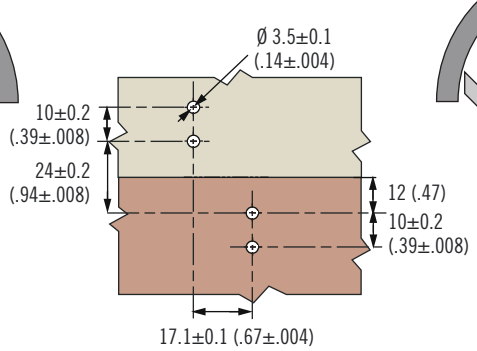


Thru Hole Version Shown



Thread Stud Version Shown





Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N•m (in•lbf)
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)

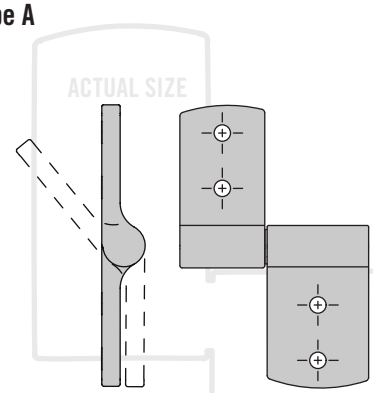
Asymmetric Torque Version					
Part Number				Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
M3 Thread Stud		Thru Hole			
Type A	Type B	Type A	Type B		
ST-8A1-40FA-50	ST-8A1-40FB-50	ST-8A-40FA-50	ST-8A-40FB-50	0.45 (4)	0.27 (2.4)
ST-8A1-60FA-50	ST-8A1-60FB-50	ST-8A-60FA-50	ST-8A-60FB-50	0.68 (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)

Dimensions in millimeters (inch) unless otherwise stated

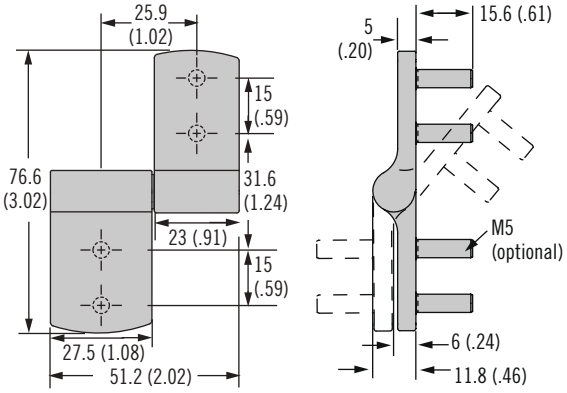
ST-11A Hinge

Position control · Constant torque

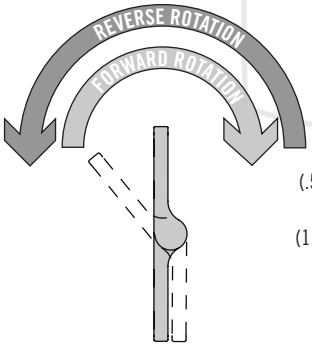
Type A



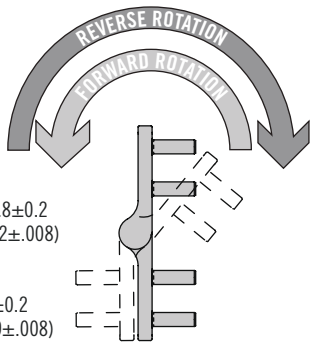
Type B

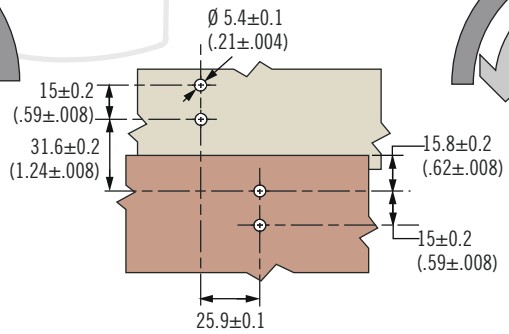


Thru Hole Version Shown



Thread Stud Version Shown





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

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

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

Material and Finish

Zinc alloy, black paint

Performance Details

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

Installation Notes

Thread stud install with M5 nuts (not supplied)

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

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

Part Number

See table

ST-7A2 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

Maximum static radial load:
Type A/B: 400 N (90 lbf)
Type T/W: xxx N (xxx lbf)

Maximum static axial load:
Type A/B: 300 N (67 lbf)
Type T/W: xxx N (xxx lbf)

Cycle performance:
50,000 cycles within ±20% of static torque specification

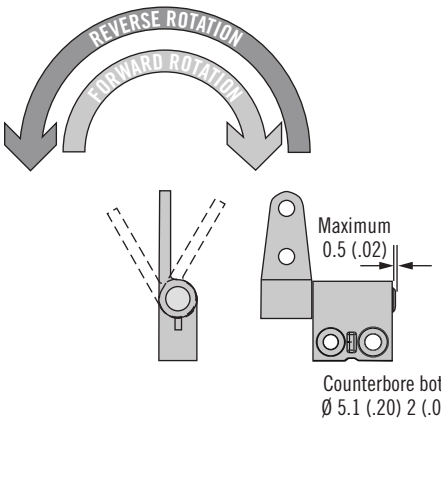
Installation Notes

1. Install hinge using No. 4 or M3 socket head cap screw.
2. For proper function, assembly must include a pair of hinges, mounted in opposing orientations.

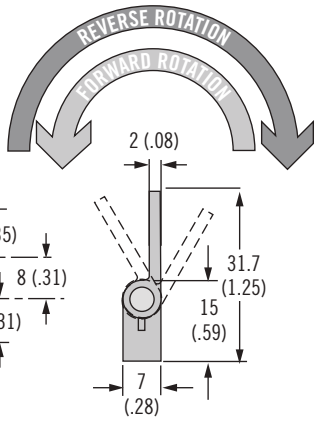
Part Number

See table on page 365

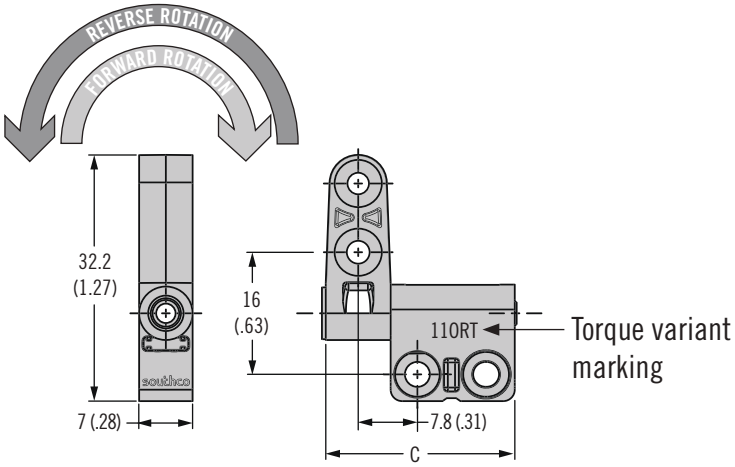
Type A - Low Profile Adapter (Handed with Type B)



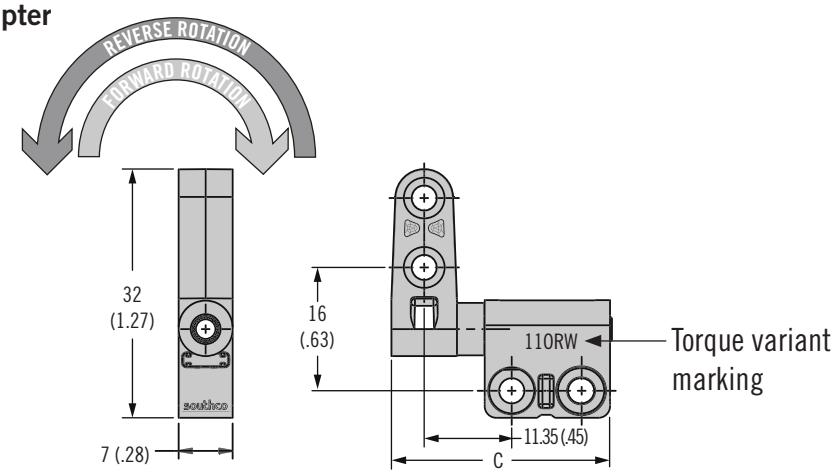
Type B



Type T - Heavy Duty Adapter



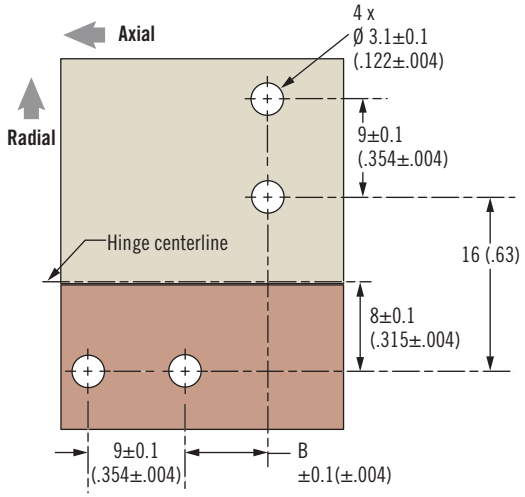
Type W - Offset Adapter



Dimensions in millimeters (inch) unless otherwise stated

ST-7A2 Hinge

Position control · Constant torque



		Low Profile Adapter		Heavy Duty Adapter		Offset Adapter	Static Torque Nm (in.lbf)	
		Type A	Type B	Type T		Type W		
Mount Hardware		No. 4	No. 4	No. 4	M3	M3 or No. 4	Forward	Reverse
Symmetric Torque		ST-7A2-30SA-33	ST-7A2-30SB-33	ST-7A2-30ST-33	ST-7A3-30ST-33	ST-7A3-30SW-33	0.34 (3)	
		ST-7A2-45SA-33	ST-7A2-45SB-33	ST-7A2-45ST-33	ST-7A3-45ST-33	ST-7A3-45SW-33	0.51 (4.5)	
		ST-7A2-60SA-33	ST-7A2-60SB-33	ST-7A2-60ST-33	ST-7A3-60ST-33	ST-7A3-60SW-33	0.68 (6)	
		-	-	ST-7A2-75ST-33	ST-7A3-75ST-33	ST-7A3-75SW-33	0.85 (7.5)	
		-	-	ST-7A2-90ST-33	ST-7A3-90ST-33	ST-7A3-90SW-33	1.0 (9)	
Asymmetric Torque		ST-7A2-30FA-33	ST-7A2-30FB-33	ST-7A2-30FT-33	ST-7A3-30FT-33	ST-7A3-30FW-33	0.34 (3)	0.29 (2.6)
		ST-7A2-40FA-33	ST-7A2-40FB-33	ST-7A2-40FT-33	ST-7A3-40FT-33	ST-7A3-40FW-33	0.45 (4)	0.36 (3.2)
		ST-7A2-50FA-33	ST-7A2-50FB-33	ST-7A2-50FT-33	ST-7A3-50FT-33	ST-7A3-50FW-33	0.56 (5)	0.45 (4)
		ST-7A2-60FA-33	ST-7A2-60FB-33	ST-7A2-60FT-33	ST-7A3-60FT-33	ST-7A3-60FW-33	0.68 (6)	0.52 (4.6)
		-	-	ST-7A2-70FT-33	ST-7A3-70FT-33	ST-7A3-70FW-33	0.79 (7)	0.6 (5.2)
		-	-	ST-7A2-90FT-33	ST-7A3-90FT-33	ST-7A3-90FW-33	1.02 (9)	0.75 (6.6)
		ST-7A2-30RA-33	ST-7A2-30RB-33	ST-7A2-30RT-33	ST-7A3-30RT-33	ST-7A3-30RW-33	0.29 (2.6)	0.34 (3)
		ST-7A2-40RA-33	ST-7A2-40RB-33	ST-7A2-40RT-33	ST-7A3-40RT-33	ST-7A3-40RW-33	0.36 (3.2)	0.45 (4)
		ST-7A2-50RA-33	ST-7A2-50RB-33	ST-7A2-50RT-33	ST-7A3-50RT-33	ST-7A3-50RW-33	0.45 (4)	0.56 (5)
		ST-7A2-60RA-33	ST-7A2-60RB-33	ST-7A2-60RT-33	ST-7A3-60RT-33	ST-7A3-60RW-33	0.52 (4.6)	0.68 (6)
		-	-	ST-7A2-70RT-33	ST-7A3-70RT-33	ST-7A3-70RW-33	0.6 (5.2)	0.79 (7)
		-	-	ST-7A2-90RT-33	ST-7A3-90RT-33	ST-7A3-90RW-33	0.75 (6.6)	1.02 (9)
Dimension	A	15 (.59)		15 (.59)	16.3 (.64)	16.3 (.64)		
	B	7.8 (.31)		7.8 (.31)		11.35 (.45)		
	C	25.2 (.99)		24.7 (.97)	26 (1.02)	28.7 (1.57)		

- **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

Maximum static radial load:
Type A/B: 400 N (90 lbf)
Type T/W: xxx N (xxx lbf)

Maximum static axial load:
Type A/B: 300 N (67 lbf)
Type T/W: xxx N (xxx lbf)

Cycle performance:
50,000 cycles within ±20% of static torque specification

Installation Notes

1. Install hinge using No. 4 or M3 socket head cap screw.
2. For proper function, assembly must include a pair of hinges, mounted in opposing orientations.

Part Number

See table on page 365

Dimensions in millimeters (inch) unless otherwise stated

ST-10A2 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

Maximum static radial load:
2300 N (517 lbf)

Maximum static axial load:
2400 N (540 lbf)

Cycle performance:
Type A/B: 30,000 cycles within ±20% of static torque specification
Type T/W: 50,000 cycles within ±20% of static torque specification

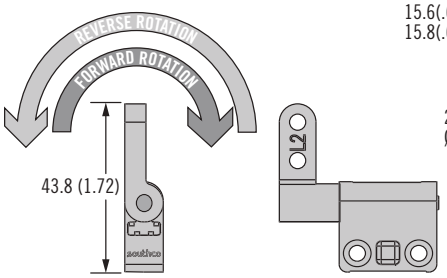
Installation Notes

1. Install hinge using M4 (No.8) socket head cap screw.
2. For proper function, assembly must include a pair of hinges, mounted in opposing orientations.

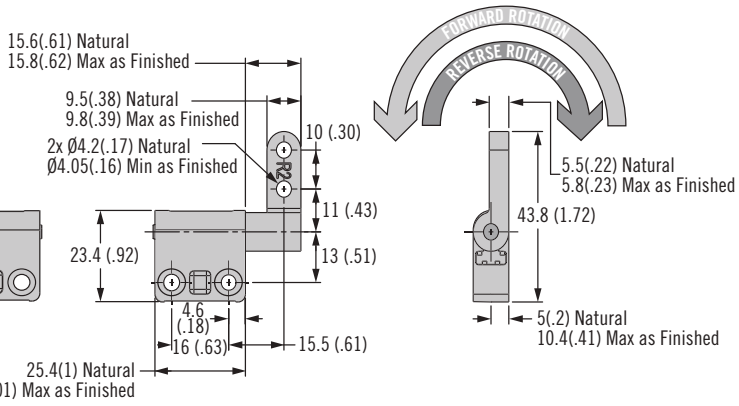
Part Number

See table

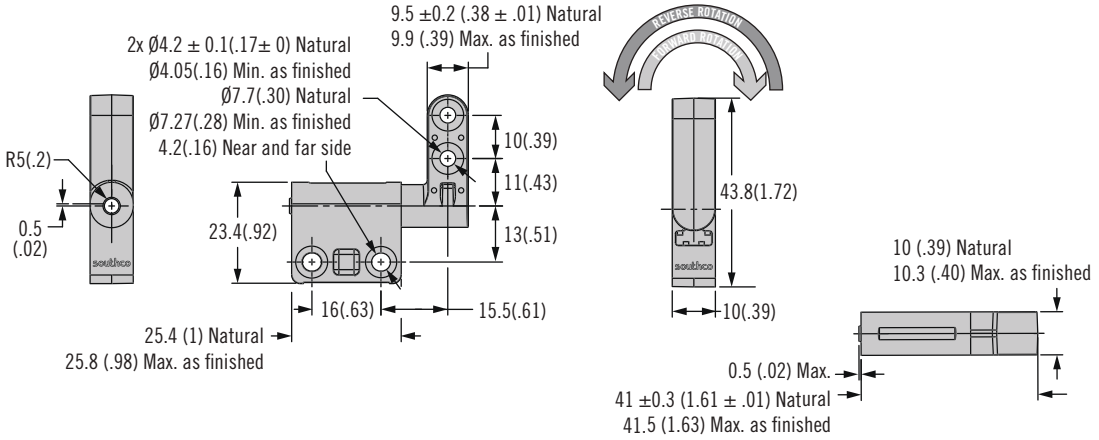
Type A Low Profile (Handed with Type B)



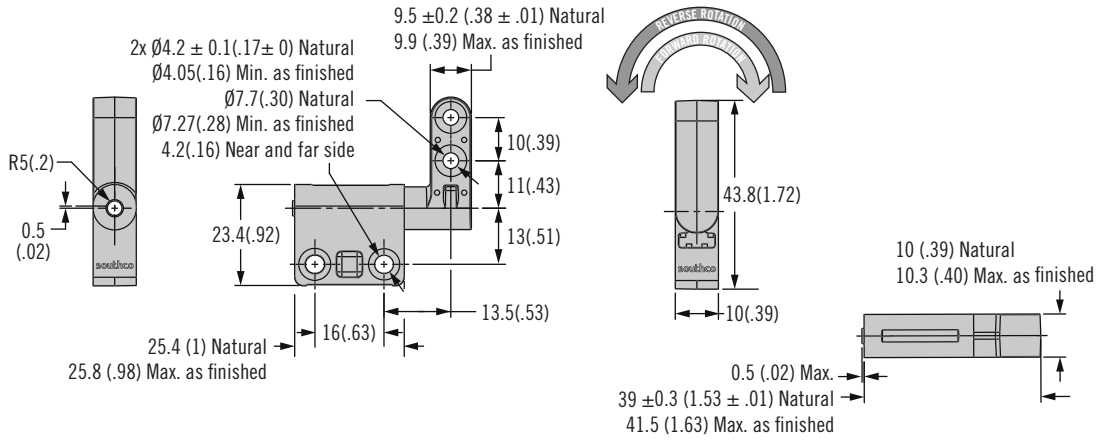
Type B



Type T Heavy Duty (Reversible)



Type W Heavy Duty Offset (Reversible)

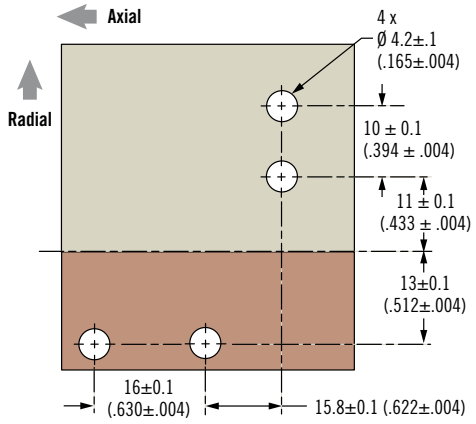


Dimensions in millimeters (inch) unless otherwise stated

southco®

ST-10A2 Hinge

Position control · Constant torque



		Low Profile Adapter		Heavy Duty Adapter	Offset Adapter	Static Torque Nm (in.lbf)	
		Type A	Type B	Type T	Type W		
Mount Hardware		M4 or No. 8				Forward	Reverse
Symmetric Torque		ST-10A2-135SA-33	ST-10A2-135SB-33	ST-10A2-135ST-33	ST-10A2-135SW-33	1.36 (12)	
		ST-10A2-170SA-33	ST-10A2-170SB-33	ST-10A2-170ST-33	ST-10A2-170SW-33	1.70 (15)	
		ST-10A2-200SA-33	ST-10A2-200SB-33	ST-10A2-200ST-33	ST-10A2-200SW-33	2.04 (18)	
		-	-	ST-10A2-240ST-33	ST-10A2-240SW-33	2.38 (21)	
		-	-	ST-10A2-270ST-33	ST-10A2-270SW-33	2.72 (24)	
		-	-	ST-10A2-300ST-33	ST-10A2-300SW-33	3.06 (27)	
Asymmetric Torque		ST-10A2-115FA-33	ST-10A2-115FB-33	ST-10A2-115FT-33	ST-10A2-115FW-33	1.14 (10.1)	0.90 (8)
		ST-10A2-150FA-33	ST-10A2-150FB-33	ST-10A2-150FT-33	ST-10A2-150FW-33	1.52 (13.5)	1.20 (10.6)
		ST-10A2-190FA-33	ST-10A2-190FB-33	ST-10A2-190FT-33	ST-10A2-190FW-33	1.90 (16.8)	1.50 (13.3)
		ST-10A2-225FA-33	ST-10A2-225FB-33	ST-10A2-225FT-33	ST-10A2-225FW-33	2.28 (20.2)	1.80 (15.9)
		-	-	ST-10A2-270FT-33	ST-10A2-270FW-33	2.66 (23.5)	2.10 (18.6)
		-	-	ST-10A2-300FT-33	ST-10A2-300FW-33	3.04 (26.9)	2.40 (21.2)
		ST-10A2-115RA-33	ST-10A2-115RB-33	ST-10A2-115RT-33	ST-10A2-115RW-33	0.90 (8)	1.14 (10.1)
		ST-10A2-150RA-33	ST-10A2-150RB-33	ST-10A2-150RT-33	ST-10A2-150RW-33	1.20 (10.6)	1.52 (13.5)
		ST-10A2-190RA-33	ST-10A2-190RB-33	ST-10A2-190RT-33	ST-10A2-190RW-33	1.50 (13.3)	1.90 (16.8)
		ST-10A2-225RA-33	ST-10A2-225RB-33	ST-10A2-225RT-33	ST-10A2-225RW-33	1.80 (15.9)	2.28 (20.2)
		-	-	ST-10A2-270RT-33	ST-10A2-270RW-33	2.10 (18.6)	2.66 (23.5)
		-	-	ST-10A2-300RT-33	ST-10A2-300RW-33	2.40 (21.2)	3.04 (26.9)
Dimension	A	15.8 (.63)			13.5 (.53)		

- **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

Maximum static radial load:
2300 N (517 lbf)

Maximum static axial load:
2400 N (540 lbf)

Cycle performance:
Type A/B: 30,000 cycles within ±20% of static torque specification
Type T/W: 50,000 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 a pair of hinges, mounted in opposing orientations.

Part Number

See table

ST-10E Hinge

Position control · Constant torque

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

Material and Finish

Zinc alloy and steel, natural

Performance Details

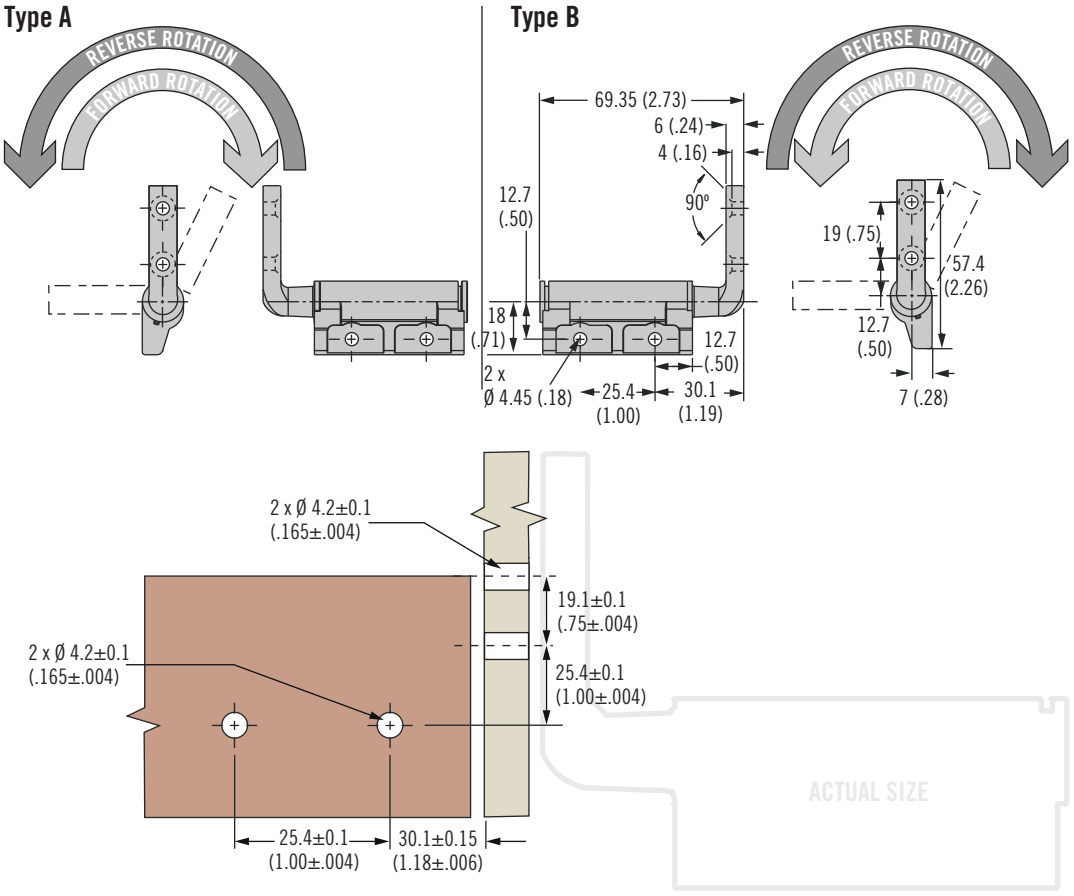
Cycle performance:
20,000 cycles within ±20% of static torque specification

Installation Notes

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

Part Number

See table



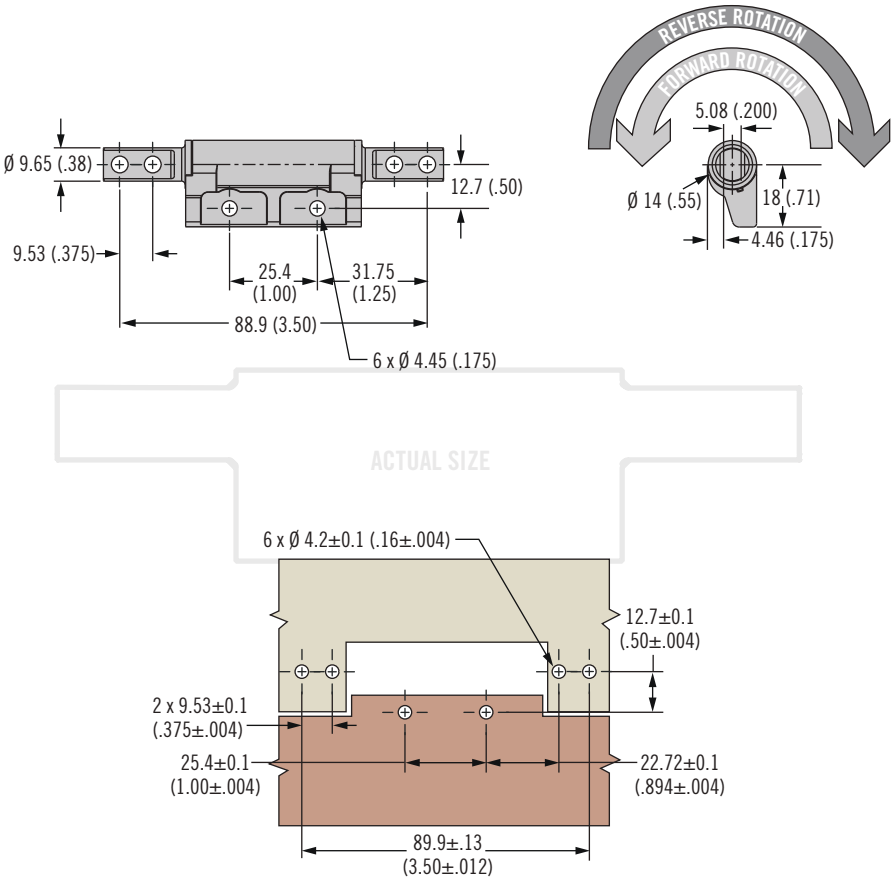
Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N·m (in·lbf)
Type A	Type B	
ST-10E-120SE-33	ST-10E-120SG-33	1.35 (12)
ST-10E-200SE-33	ST-10E-200SG-33	2.26 (20)
ST-10E-280SE-33	ST-10E-280SG-33	3.16 (28)
ST-10E-360SE-33	ST-10E-360SG-33	4.06 (36)

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

Dimensions in millimeters (inch) unless otherwise stated

ST-10E Hinge

Position control · Constant torque



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

Material and Finish

Zinc alloy and steel, natural

Performance Details

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

Installation Notes

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

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

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

Part Number

See table

ST-10E Hinge

Position control · Constant torque

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

Material and Finish

Zinc alloy and steel, natural

Performance Details

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

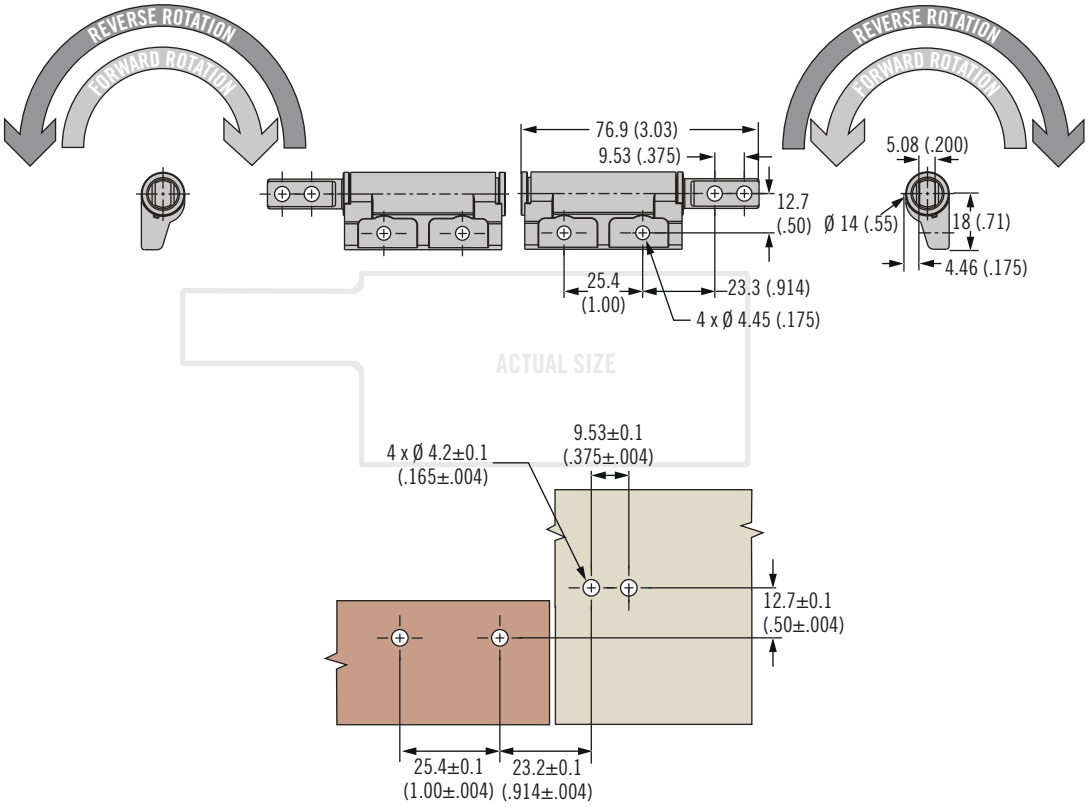
Installation Notes

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

Part Number

See table

Type A **Type B**



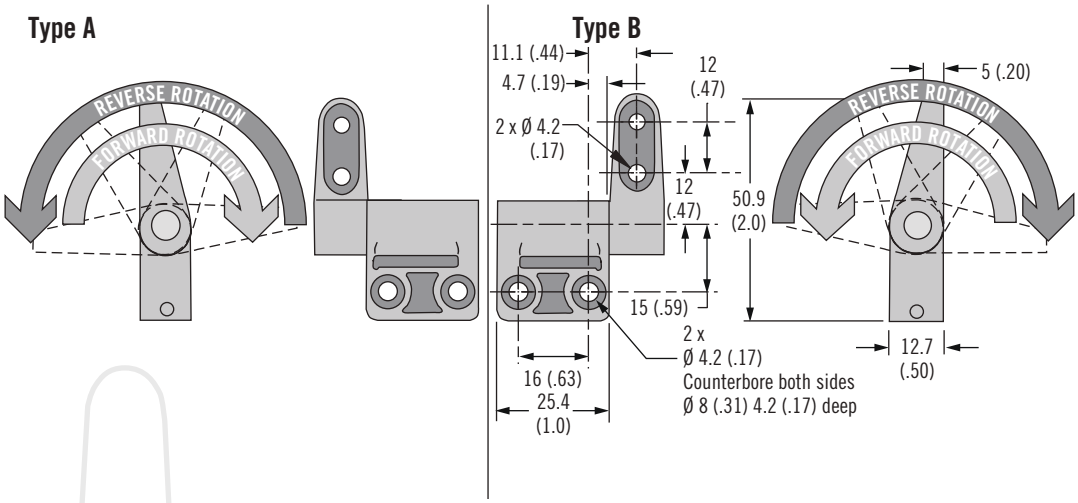
Symmetric Torque Versions		
Part Number		Static Torque (Forward and Reverse) N•m (in•lbf)
Type A	Type B	
ST-10E-120SJ-33	ST-10E-120SK-33	1.35 (12)
ST-10E-200SJ-33	ST-10E-200SK-33	2.26 (20)
ST-10E-280SJ-33	ST-10E-280SK-33	3.16 (28)
ST-10E-360SJ-33	ST-10E-360SK-33	4.06 (36)

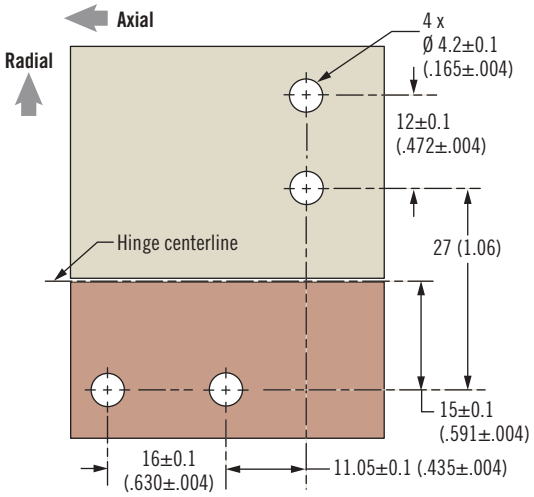
Asymmetric Torque Versions			
Part Number		Static Torque N•m (in•lbf)	
Type A	Type B	Forward N•m (in•lbf)	Reverse N•m (in•lbf)
ST-10E-200FJ-33	ST-10E-200FK-33	2.26 (20)	1.35 (12)
ST-10E-280FJ-33	ST-10E-280FK-33	3.16 (28)	1.89 (16.8)
ST-10E-360FJ-33	ST-10E-360FK-33	4.06 (36)	2.44 (21.6)
ST-10E-440FJ-33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

Dimensions in millimeters (inch) unless otherwise stated

ST-12A Hinge

Position control · Constant torque





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)

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

Material and Finish

Zinc alloy and steel, natural

Performance Details

Radial load:
Maximum static load:
1000 N (225 lbf)

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

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

Installation Notes

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

Part Number

See table

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

Position control · Constant torque

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

Material and Finish

Aluminum, zinc alloy and steel, natural

Performance Details

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

ST-4A
Radial load:
Maximum static load:
200 N (45 lbf)

ST-5A
Radial load:
Maximum static load:
223 N (50 lbf)

ST-10P
Radial load:
Maximum static load:
400N

Part Number

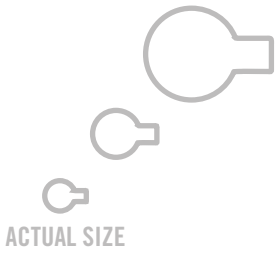
See table

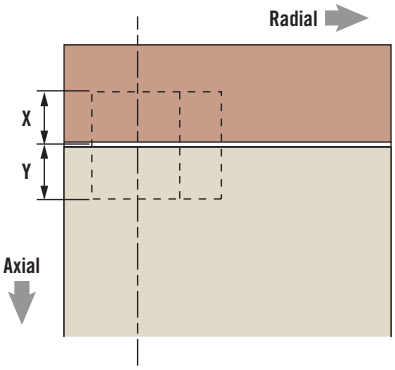
Part Number	Static Torque		X	Y
	Forward N•m (in•lbf)	Reverse N•m (in•lbf)		
ST-4A-3S-33	0.03 (0.3)		3.5 (.14)	3.5 (.14)
ST-4A-8S-33	0.08 (0.75)		9.5 (.37)	9.5 (.37)
ST-5A-10S-33	0.11 (1.0)		4.15 (.163)	7.4 (.291)
ST-5A-16S-33	0.18 (1.6)			
ST-5A-23S-33	0.26 (2.3)			
ST-5A-30S-33	0.34 (3.0)			
ST-10P-040S-33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

Dimensions in millimeters (inch) unless otherwise stated

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

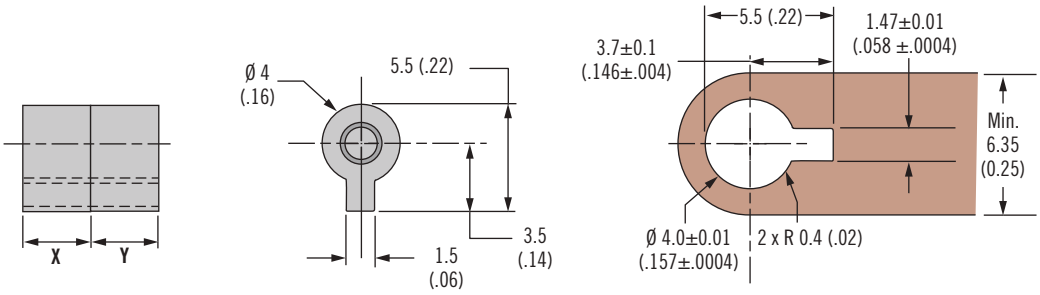
Position control · Constant torque



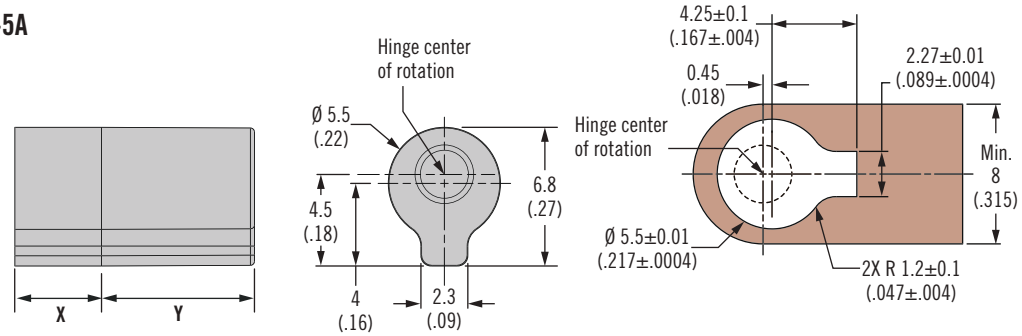


- Smooth consistent operation
- Compact design fits the smallest applications
- Never requires adjustment

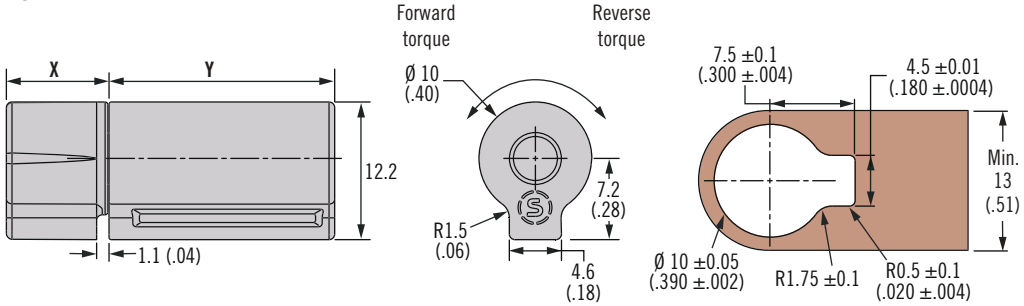
ST-4A



ST-5A



ST-10P



Part Number

See table

ST-20L Hinge

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

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

Material and Finish

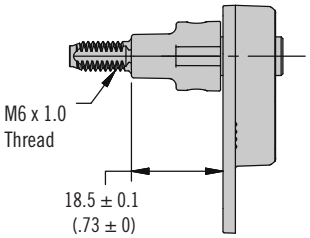
Zinc alloy and steel, natural

Performance Details

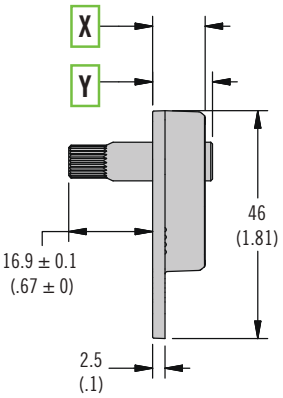
Radial load:
Maximum static load: 400 N (90 lbf)

Axial load:
Please note this hinge will not resist axial loads.

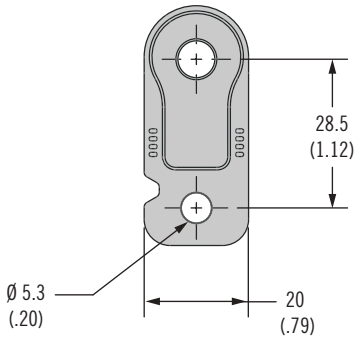
Cycle performance:
20,000 cycles within ±20% of static torque specification

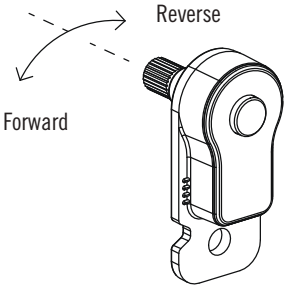


Nut mounting version
Tighten M6 nut (not supplied) to max 3.4Nm



Press-in version
Press shaft into mating hole in panel





Part Number

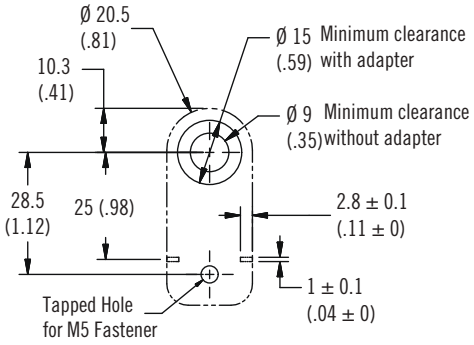
See table

	Part Number	Forward Torque Nm (ibf.in)	Reverse Torque Nm (ibf.in)	Dimension X mm (in)	Dimension Y mm (in)
Press-In	ST-20L-100FA/B-33	1.0 (8.9)	0.75 (6.6)	7.2 (.28)	8.8 (.35)
	ST-20L-100RA/B-33	0.75 (6.6)	1.0 (8.9)		
	ST-20L-200SA/B-33	1.75 (15.3)			
	ST-20L-300FA/B-33	3.0 (26.6)	2.3 (19.9)	8.9 (.35)	12.1 (.48)
	ST-20L-300RA/B-33	2.3 (19.9)	3.0 (26.6)		
	ST-20L-400SA/B-33	3.5 (31)		10.6 (.42)	
Nut Mount	ST-20L-100FJ/K-33	1.0 (8.9)	0.75 (6.6)	7.2 (.28)	8.8 (.35)
	ST-20L-100RJ/K-33	0.75 (6.6)	1.0 (8.9)		
	ST-20L-200SJ/K-33	1.75 (15.3)			
	ST-20L-300FJ/K-33	3.0 (26.6)	2.3 (19.9)	8.9 (.35)	12.1 (.48)
	ST-20L-300RJ/K-33	2.3 (19.9)	3.0 (26.6)		
	ST-20L-400SJ/K-33	3.5 (31)		10.6 (.42)	

Dimensions in millimeters (inch) unless otherwise stated

ST-20L Hinge

Position control · Constant torque · Panel Preparation

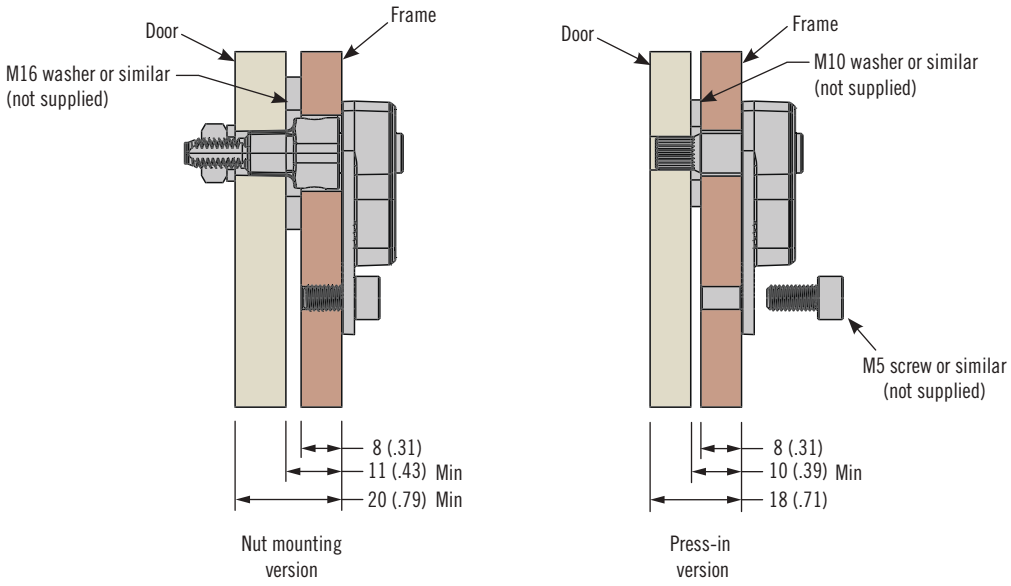


- **Smooth operation**
- **Space efficient design provides high torque in minimum space**
- **Constant torque, never needs adjusting**

Installation Notes

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

SIMPLIFIED INSTALLATION DETAILS



Dimensions in millimeters (inch) unless otherwise stated

G7 Hinge

Bi-stable

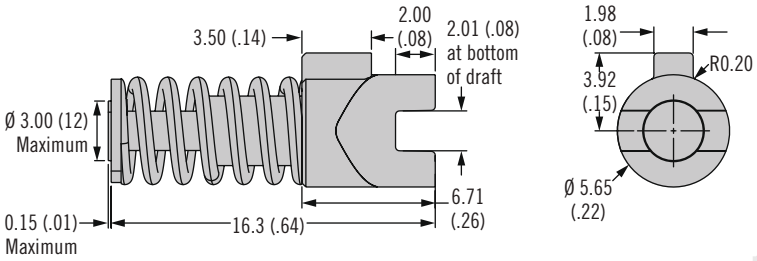
- **Automatically drives to one of two preferred positions**
- **Invisible when installed**

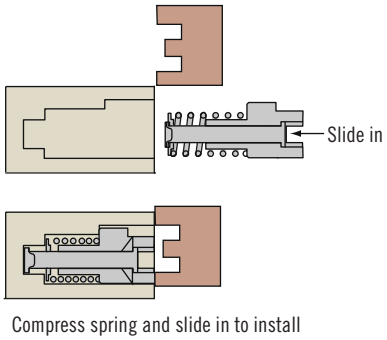
Material and Finish

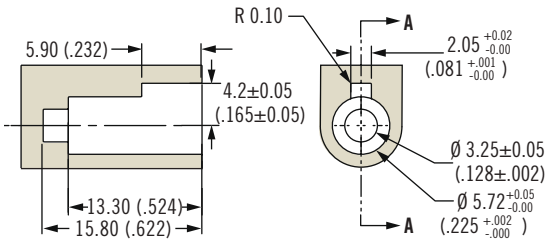
Acetal black, steel, zinc plated

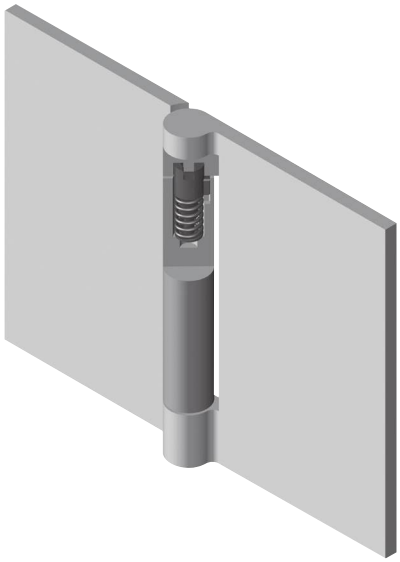
Performance Details

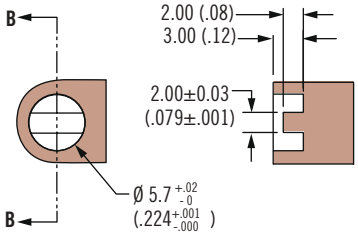
Cycle performance: 20,000 cycles within ± 20% of normal torque specification











Part Number

See table

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

Dimensions in millimeters (inch) unless otherwise stated

AH-2E 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

Aluminium alloy and steel, natural

Performance Details

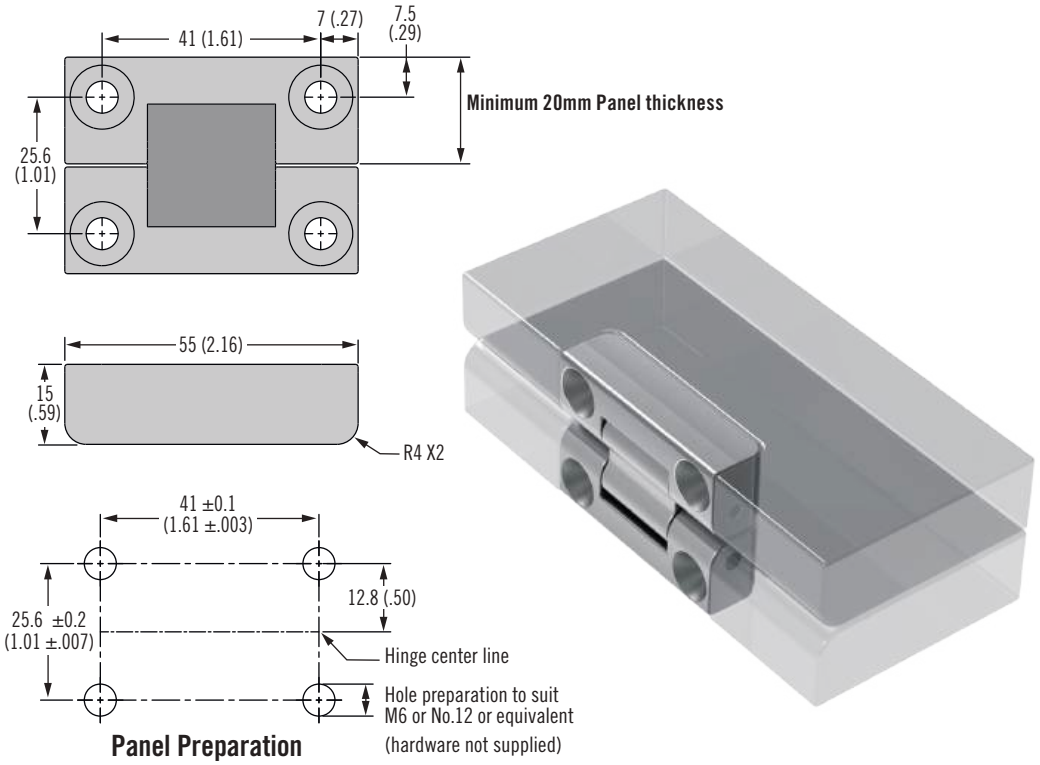
Radial load:
Maximum static load: 650 N @ 100mm from hinge axis (145 lbf 4")

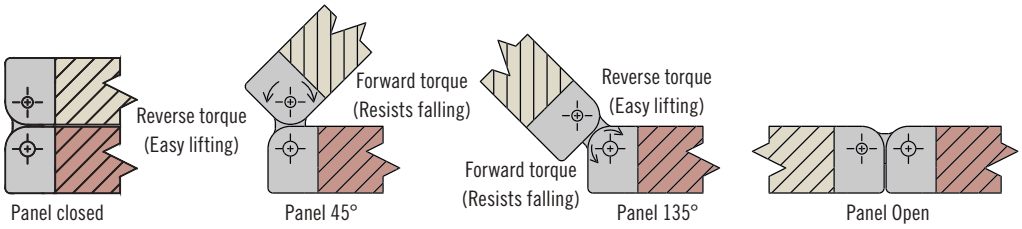
Axial load:
Maximum static load: 1500 N (330 lbf)

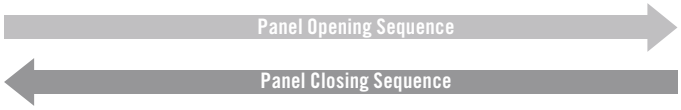
Cycle performance:
20,000 cycles within ±20% of static torque specification

Installation Notes

Install hinge using 2x M6 or No 12 CSK screws or equivalent (not supplied). Ensure substrate and screw length is suitable for required application strength







Part Number Selection

See table

AH - 2E - 20 XX A 2 - FF

FF Finish
- **50** Black anodised
- **63** Natural aluminium
- **70** Silver electroplated

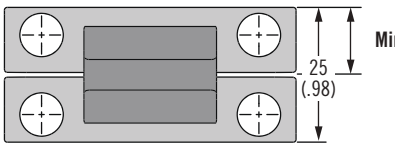
XX Torque

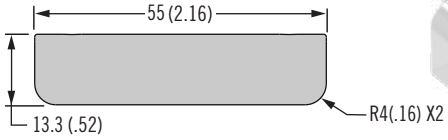
Torque	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
00	Free Operating	
12	1.5 (13.2)	1.1 (9.7) (REF)
16	1.8 (16)	1.3 (11.5) (REF)
20	2 (17.7)	1.5 (13.2) (REF)
24	2.2 (19.4)	1.6 (14) (REF)

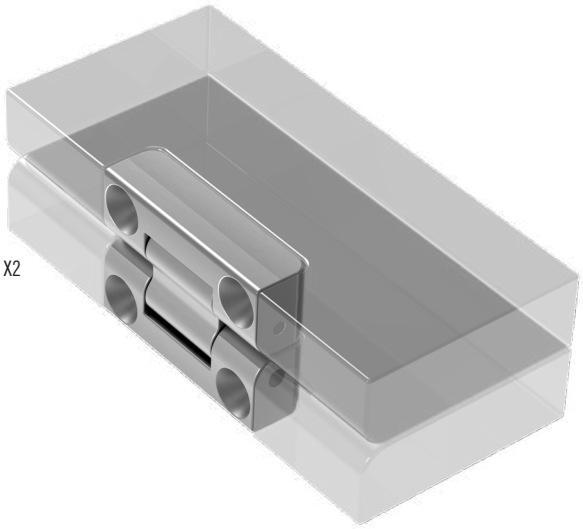
Dimensions in millimeters (inch) unless otherwise stated

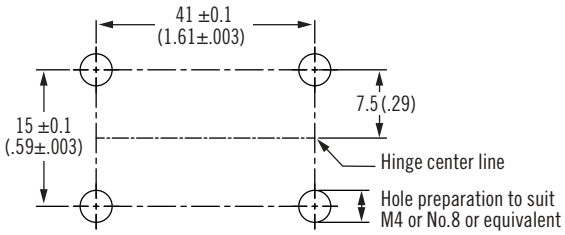
AH-2E Hinge

Position control · Constant torque

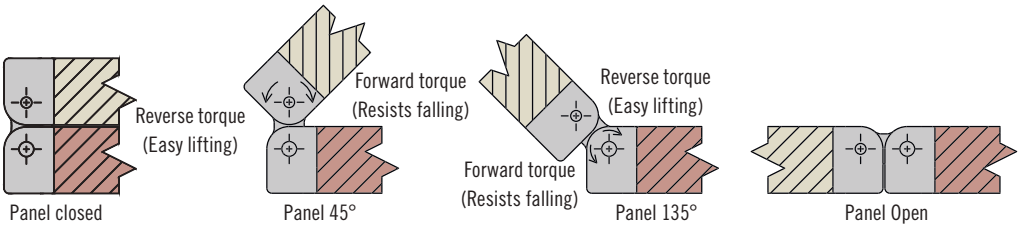


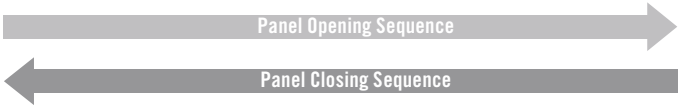






Panel Preparation





AH - 2E - 12 XX A 2 - FF

FF Finish
24 Stainless steel

XX Torque

Torque	Symmetric Torque N·m (in·lbf)
00	Free Operating
04	0.3 (2.7)
08	0.6 (5.3)
12	1 (8.8)

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

Material and Finish

Stainless steel and steel

Performance Details

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

Installation Notes

Install hinge using 4x M4 or No 8 CSK screws or equivalent (not supplied). Ensure substrate and screw length is suitable for required application strength

Part Number Selection

See table

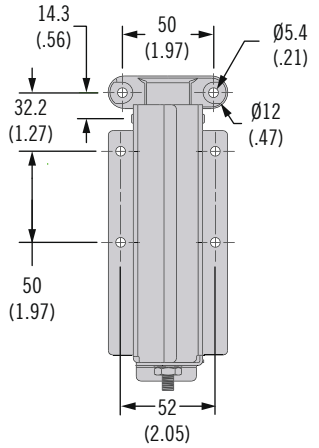
Dimensions in millimeters (inch) unless otherwise stated

CA Hinge

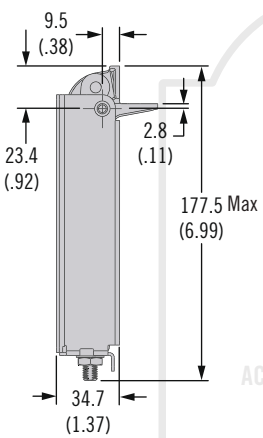
Position control · Constant torque · Counterbalanced

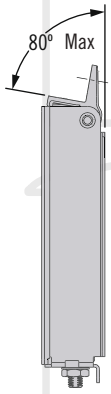
- **Holds in every position**
- **Counterbalance spring allows easy opening**
- **Long cycle life**

Closed Position



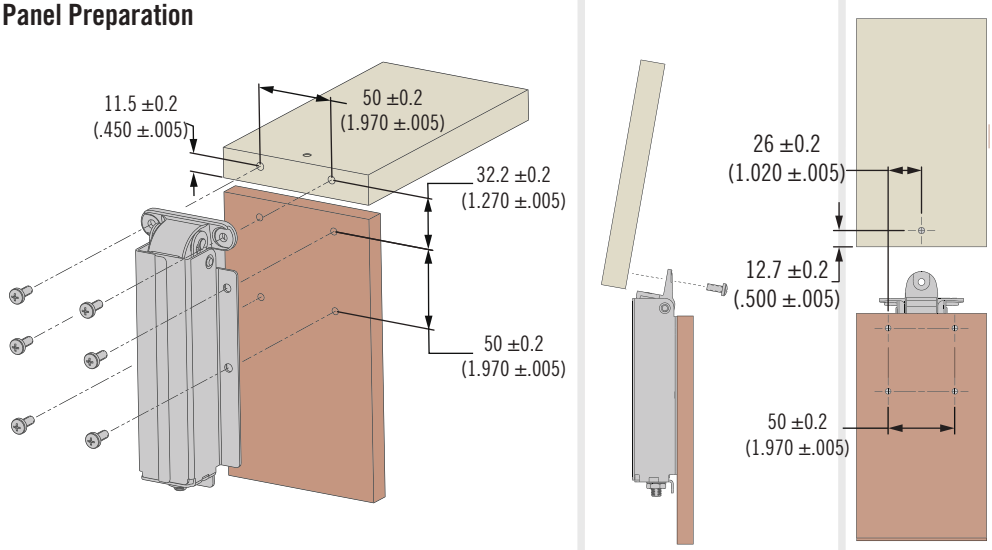
Open Position



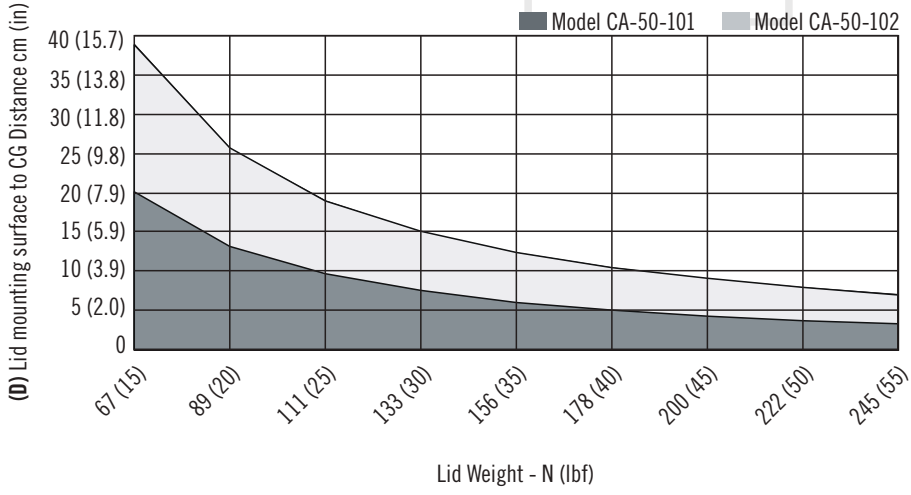


ACTUAL SIZE

Panel Preparation



CA-50 Hinge Model Selection Guide - See Fig.1



Material and Finish

Steel, black powder coated

Performance Details

Cycle performance: 20,000 cycles
See trade drawing for details.

Installation Notes

See trade drawing for instructions on setting spring preload.

Installation with M5 or No. 10 screws (not supplied).

Application

Part Number

See table

Part Number	Max Lift Assistance Per Hinge N·m (in·lbf)
CA-50-101-50	9.4 (83)
CA-50-102-50	17.7 (157)

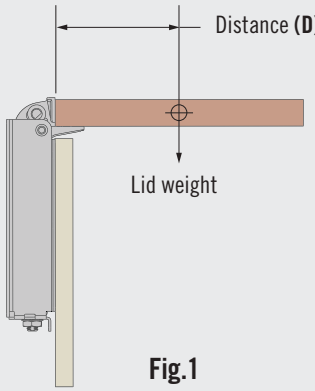


Fig.1

CB Lift-A-Syst® Hinge

Counterbalanced · Position Control

- **Counterbalance technology allows for easy opening / closing of heavy panels**
- **Accommodates a wide variety of panel weights**
- **Adjustability feature allows fine tuning of panel motion**
- **Long cycle life**

Material and Finish

Aluminum, black anodized

Installation Notes

See Trade Drawings for more information.

Application

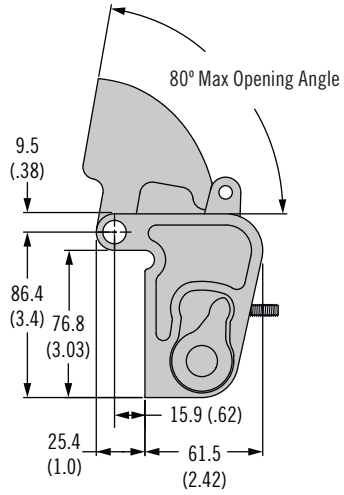
Part Number

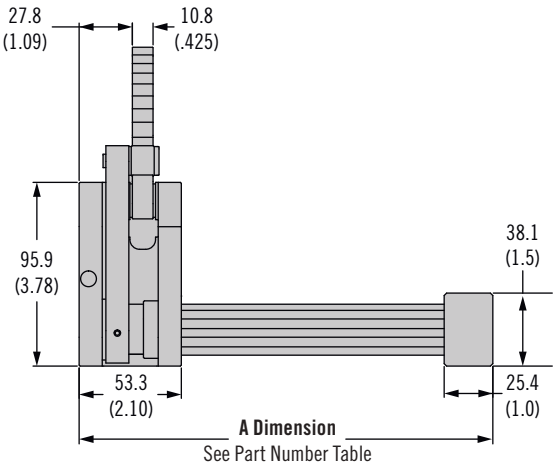
See table

WARNING

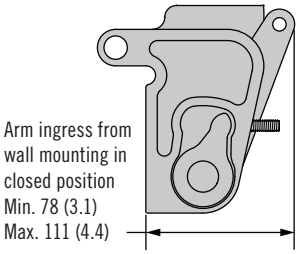
IMPORTANT SAFETY NOTICE:
DO NOT DISASSEMBLE UNIT DISASSEMBLING UNIT MAY CAUSE SERIOUS INJURY.
NO USER SERVICEABLE PARTS.

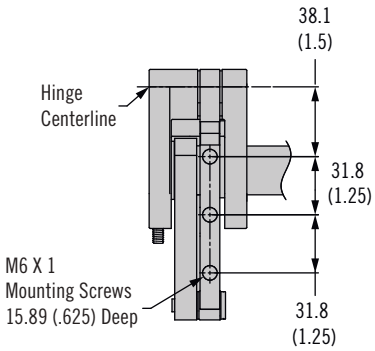
Open Position (Left Hinge Shown)



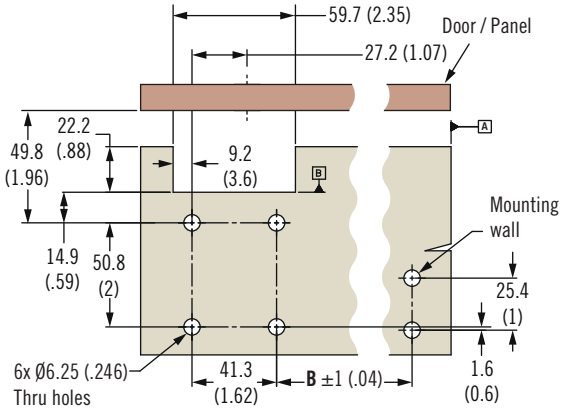


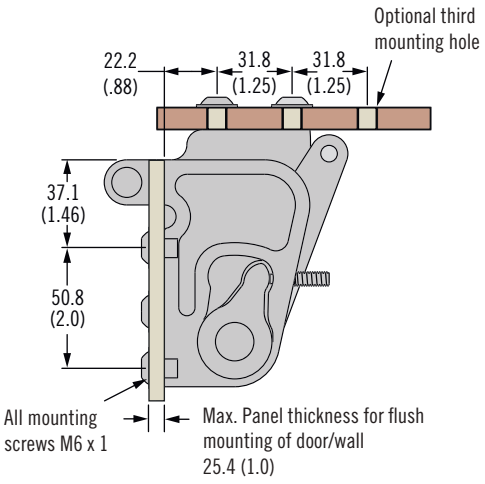
Closed Position (Left Hinge Shown)





Panel Preparation (Left Hinge Shown)





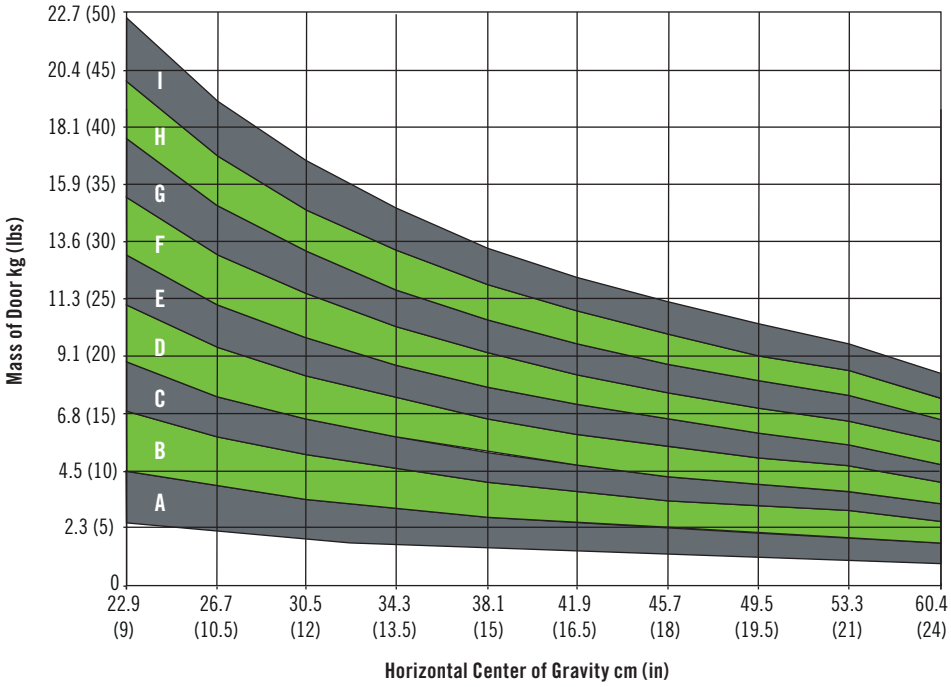
Note: Wall panel prep shown for left-hand assembly. All geometry mirrored about "A" datum for right-hand units

Dimensions in millimeters (inch) unless otherwise stated

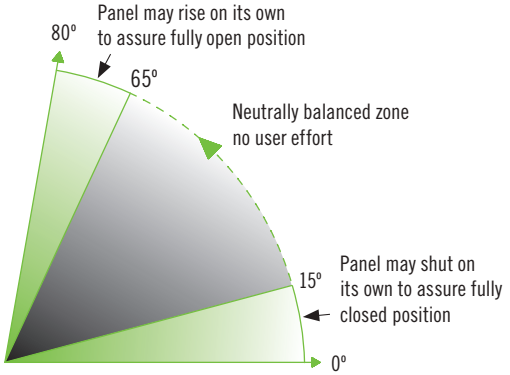
CB Hinge

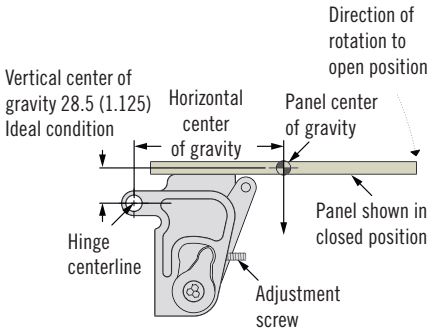
Counterbalanced • Position Control

Counterbalance Hinge Selection Guide (per hinge)



Panel Balance Characteristics (typical)





Accessories

Support Hinge:
Part number: CB-10-100-10

Notes

Support Hinge can be used when one counterbalanced hinge can supply required torque for the panel. See illustration below and trade drawing J-CB-1 for detailed information.

Part Number		Graph Selection Zone	A Dimension cm (in)	B Dimension cm (in)	Torque N•m (lbf-in) (per hinge)		
Left	Right				Nominal	Minimum	Maximum
CB-11-101-00-10	CB-12-101-00-10	A	21.6 (8.5)	15.59 (6.14)	8.8 (78)	5.7 (50)	10.2 (90)
CB-11-102-00-10	CB-12-102-00-10	B	28.6 (11.13)	22.25 (8.76)	13.5 (119)	10.2 (90)	15.5 (137)
CB-11-103-00-10	CB-12-103-00-10	C	34.3 (13.50)	28.29 (11.13)	18.2 (161)	15.5 (137)	19.8 (175)
CB-11-104-00-10	CB-12-104-00-10	D	40.0 (15.75)	34.00 (13.39)	22.8 (202)	19.8 (175)	24.9 (220)
CB-21-101-00-10	CB-22-101-00-10	E	29.2 (11.50)	22.07 (8.68)	27.7 (245)	24.9 (220)	29.4 (260)
CB-21-102-00-10	CB-22-102-00-10	F	30.9 (12.17)	24.93 (9.80)	32.2 (285)	29.4 (260)	34.5 (305)
CB-21-103-00-10	CB-22-103-00-10	G	34.1 (13.42)	28.10 (11.05)	37.3 (330)	34.5 (305)	39.5 (350)
CB-21-104-00-10	CB-22-104-00-10	H	37 (14.54)	30.96 (12.18)	42.4 (375)	39.5 (350)	44.6 (395)
CB-21-105-00-10	CB-22-105-00-10	I	40.8 (16.04)	34.77 (13.68)	47.5 (420)	44.6 (395)	50.3 (445)