Wrap Spring Clutch/Brakes

CROSSOVER DRIVES

Introduction

A Rich History in Wrap Spring Clutches & Brakes

Founded in 1982, Crossover Drives sole mission is the design and manufacture of premium wrap spring clutches & brakes. We strive to understand the applications needs of our customers, and to deliver excellent quality products. We continuously test and re-test our products with new materials, lubricants, and components in a constant effort to incrementally improve the life and value of our products. Our founders and associates have in excess of a combined 100 years in wrap spring product design and development.

Our standard and super CB series are drop-in replacements for Warner and Deltran products, delivering improved life and more flexible delivery requirements. The same goes for our PSI series clutches. Our CBP and CE series include many of the original wrap spring products developed by Marquette, dating back to the 1950's.

Crossover Drives is an ISO 9001:2008 certified manufacturer. Our quality control processes are tightly controlled to ensure that every product we make is excellent. We think you will working with us to be an enjoyable experience.

Product Catalog

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Product Overview

Six designs to choose from

CB SUPER WRAP SPRING CLUTCH/BRAKE PACKAGE

CB Super combination clutch/brakes operate identically to the CB Standard package, but provide 3-5 times longer life. The super packages incorporate hardened and precision ground components, precision needle bearings, and hardened wear points.

CB STANDARD WRAP SPRING CLUTCH/BRAKE PACKAGE

CB Standard combination clutch/brakes accurately start and stop loads driven by a continuously rotating power source. CB units operate via a single AC or DC pulse, stopping the load within ±½° noncumulative at speeds up to 1200 RPM depending upon size. Each unit is pre-engineered and pre-assembled for easy installation.

CB SHORT WRAP SPRING CLUTCH/BRAKE PACKAGE

CB Short combination clutch/brakes operate identically to the CB Standard package, but are designed for applications which require a smaller axial footprint, and lower braking torque. The Short sizes 8 and 5 are available in both super and standard versions, while the size 4 Short is only available in a standard package.

SAC WRAP SPRING CLUTCH PACKAGE

SAC clutch only packages will bring a load up to speed within 3 milliseconds. SAC clutches operate via a single AC or DC pulse at speeds up to 1200 RPM, depending upon size.

SP WRAP SPRING CLUTCH/BRAKE PACKAGE

SP combination clutch/brakes operate identically to the CB Standard package, but are designed for applications which require even smaller axial footprints as compared to a Short package. SP units are available in sizes 6, 5, and 4.

PSI WRAP SPRING CLUTCH

PSI Series wrap spring clutches are the most economical clutches available, operated by any simple mechanical lever. PSI clutches are ideal for overrunning, start-stop, and single revolution applications. They are all available in either shaft input/hub output, or hub input/shaft output.

Product Selection

Easy to Select and Install

Crossover Wrap Spring Clutches and Brakes are as easy to select as they are to install. Simply determine the following:

Function: overrunning, start-stop, or single revolution

Size: bore size and maximum RPM

Torque: drive torque and braking torque (if required)

The following table will help identify your clutch product.

Clutches and Clutch/Brakes Selection Chart							
Type	Model/Size	Drive Torque Range lb-in (Nm)	Brake Torque Range ib-in (Nm)	Bore Range	RPM Range	Actuation Method	Page
Clutch/Brake	Super CB-5,6,7,8	250 (28.25) - 2,500 (282.5)		1/2-1 1/2" 12-40mm	300-750	AC, DC, or air Solenoid	6
Clutch/Brake	Standard CB-4,5,6,7,8	120 (13.56) - 2,500 (282.5)		1/4-1 1/2" 6-40mm	300-1200	AC, DC, or air Solenoid	16
Clutch/Brake	Short SCB-4,5,8	120 (13.56) - 2,500 (282.5)		3/8-1 1/2" 10-40mm	300-1200	AC, DC, or air Solenoid	28
Clutch	SAC-4,5,6	120 (13.56) - 500 (56.5)	na	1/4-1" 6-25mm	500-1200	AC, DC, or air Solenoid	36
Clutch	SP-4,5,6	120 (13.56) - 500 (56.5)	na	3/8-1" 10-25mm	500-1200	AC, DC, or air Solenoid	44
Clutch	PSI-4,5,6,8	120 (13.56) - 2500 (282.5)	na	1/4-1 1/2" 6-40 mm	300-1200	Mechanical	52
Conveyor Clutch	Standard CE-7,8	1,500 (169.5) - 2,500 (282.5)	na	1-1 7/16"	300-400	Mechanical	58
Conveyor Clutch	Super CES-7	1,500 (169.5)	na	1 7/16"	400	Mechanical	58

Super CB Series

Longer Life Clutch/Brake Packages

Super CB Series combination clutches and brakes accurately start and stop loads that are driven by a continuously rotating source. These units actuate from a single AC or DC pulse, stopping the load within +/-1/2° noncumulative at speeds up to 750 RPM, depending upon the size of the unit.

Super CB clutches/brakes provide 3 to 5 times the life as compared with a standard CB clutch/brake. The units can be dropped in to replace existing standard clutch/ brake packages.

Features:

- Available in 4 sizes, (5, 6, 7, and 8)
- Cost-effective design
- 3-5 times longer life than Standard CB
- Adjustable control collars for easy and accurate output stop position
- ROHS compliant
- Load over-travel or back-up is eliminated, units lock the load in both directions when solenoid is off
- Anti-overrun feature prevents the output from running faster than the input
- Roller bearings never need adjustment for wear
- Brings loads up to speed in 3 milliseconds and stops within 1.5 milliseconds
- AC or DC operated
- Direct retrofit for Standard CB-5, CB-6, CB-7, and CB-8
- Permanently lubricated
- Steel inserts in 1-, 2-, and 4-stop collars
- Heavy-duty industrial grade coils
- High cycle rate capability
- High torque to size ratio
- Repeatable positioning within +/-1/2°

Typical Applications:

- Riveters
- Punch presses
- Packaging equipment
- Conveyor drives
- Heavy duty machinery
- Rapid cycling equipment

How to order:

Super CB - 6- CW- 24V- 3 /4" Bore- 2

Super CB Series
Specify:
Imperial or Metric

Size
CB-5 = **5**
CB-6 = **6**
CB-7 = 7
CB-8 = **8**

Coil Voltage
12V = 12VDC
24V = 24VDC
90V = 90VDC
115V = 115VAC

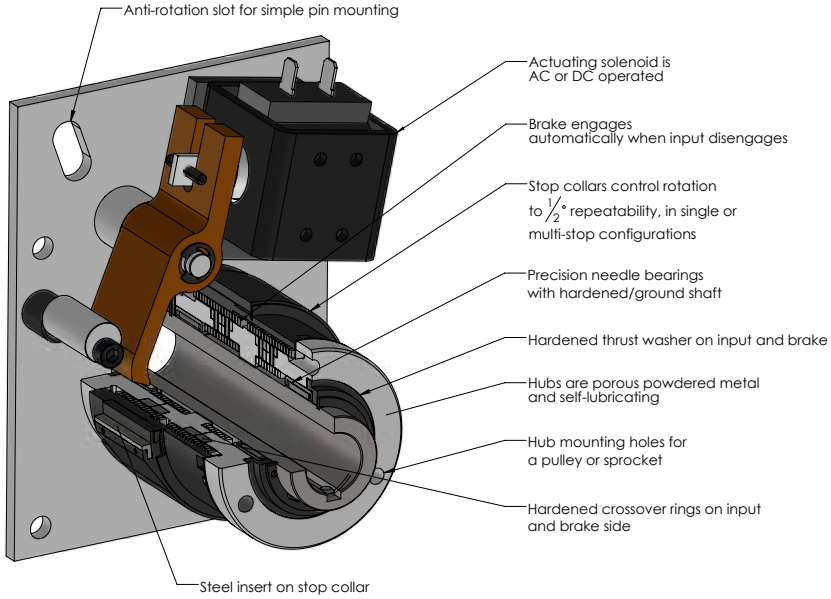
Bore Size
CB-5 = **1/2" or 12mm**
CB-6 = **3/4", 1", 20mm, or 25mm**
CB-7 = **1", 1 1/4", 1 3/8", 1 1/2" 25, 30, 35, or 40mm H9**
CB-8 = **1", 1 1/4", 1 3/8", 1 1/2" 25, 30, 35, or 40mm H9**

Stop Collar
1 = 1 Stop
2 = 2 Stop
4 = 4 Stop

Direction of Rotation
CW = Clockwise
CCW = Counterclockwise

Super CB Series

Solenoid Operated Combination Clutch/Brake

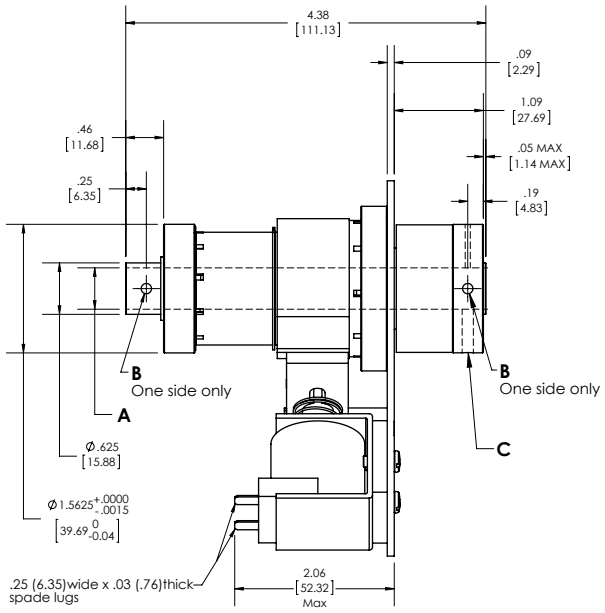


SUPER CB PERFORMANCE				
	Super CB-5	Super CB-6	Super CB-7	Super CB-8
Static Torque	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)	1,500 lb-in (169.5Nm)	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Maxium anti-back holding capability	160 lb-in (18.08Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Inertia, rotating parts	0.195 lb-in²	1.718 lb-in²	6.75 lb-in²	12.84 lb-in²
Maxium radial bearing load at maxium speed	32 lbs.	63 lbs.	300 lbs.	300 lbs.
Maxium operating speed	750 RPM	500 RPM	400 RPM	300 RPM
Response time, voltage on at full speed	27 ms	45 ms	50 ms	50 ms
Weight	3 lbs.	7 lbs.	12 lbs.	15 lbs.

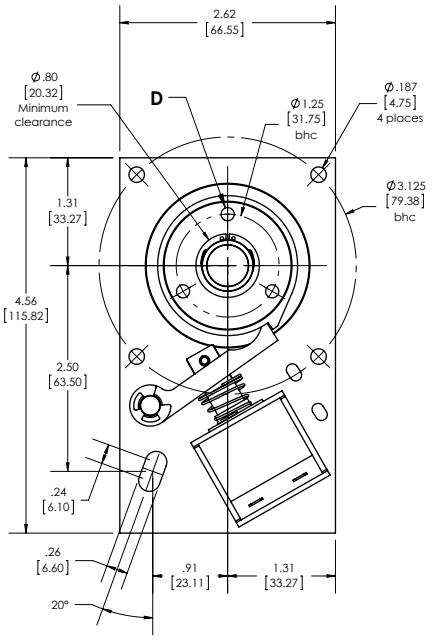
RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
Super CB-5	750	1/2" (12.7mm)	12 mm (0.427")
Super CB-6	500	3/4" (19.05mm) 1" (25.4mm)	20mm (.787") 25mm (.984")
Super CB-7	400	3/4" (19.05mm) 1" (25.4mm) 1 1/4" (31.75mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")
Super CB-8	300	1" (25.4mm) 1 1/4" (31.75mm) 1 3/8 (34.9mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")

Super CB-5 Clutch/Brake

Dimensions and Specifications



RIGHT SIDE VIEW



TOP VIEW

Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)
Maxium anti-back holding capability	160 lb-in (18.08Nm)
Inertia, rotating parts	0.195 lb-in²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	27 ms
Weight	3 lbs.

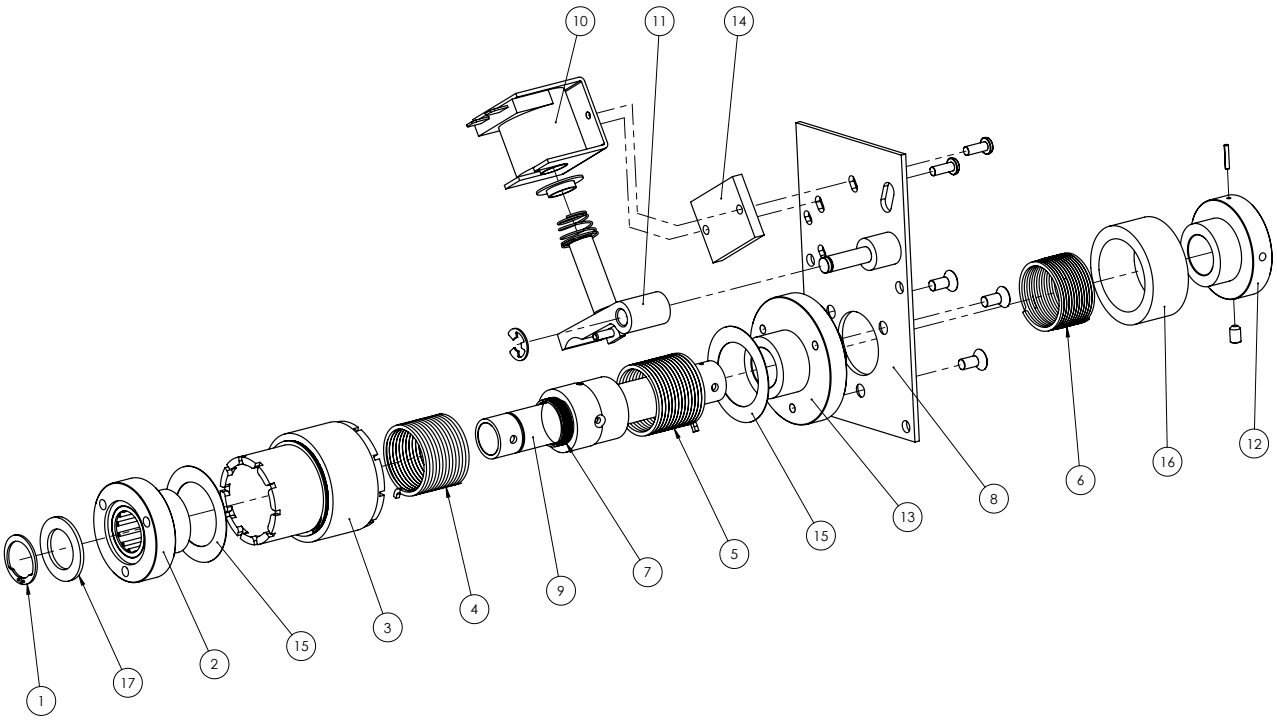
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B	Set Screws C	Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)	#8-32 x 0.25 hex set screw	3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)	M4 x 0.7 x 6.0 hex set screw	3x M5 x 0.8 on 31.75 bc

Super CB-5 Clutch/Brake
Component Parts

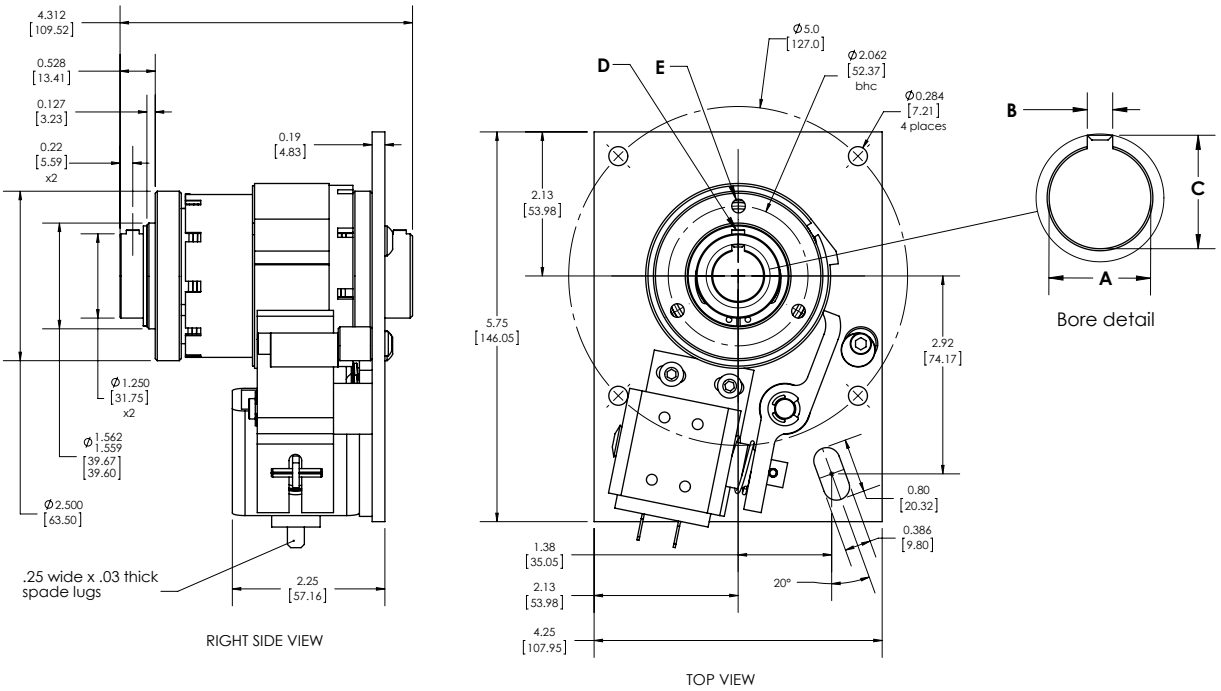


Super CB-5 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub		04050-21000
	Input Hub Metric		14050-21000
3	Control Collar Assy 1-stop	CW	03051-06061
	(specify stops last digit)	CCW	03052-06061
4	Drive Spring	CW	03051-31000
		CCW	03052-31000
5	Brake spring	CW	03051-32000
		CCW	03052-32000
6	Anti-back Spring	CW	03051-33000
		CCW	03052-33000
7	Anti-overrun Spring	CW	03051-34000
		CCW	03052-34000
8	Mounting Plate Assy	CW	03051-03000
		CCW	03052-03000
9	Output Shaft Assy		
	1/2" bore		04050-04205
	12.0 H9 bore		14050-04242

Super CB-5 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		04050-12000
12	Anti-back Hub		03050-28000
	Anti-back Hub Metric		13050-28000
13	Brake Hub		04050-22000
14	Coil mount plate		03050-97000
15	Sleeve shim set (2)		03050-66000
16	Dust Cover (AB spring)		03050-29000
17	Thrust Washer		04050-17081

Super CB-6 Clutch/Brake

Dimensions and Specifications



Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	500 lb-in (56.5Nm)
Maxium anti-overrun holding capability	300 lb-in (33.9Nm)
Maxium anti-back holding capability	300 lb-in (33.9Nm)
Inertia, rotating parts	1.718 lb-in²
Maxium radial bearing load at max speed	63 lbs.
Maxium operating speed	500 RPM
Response time, voltage on at full speed	45 ms
Weight	7 lbs.

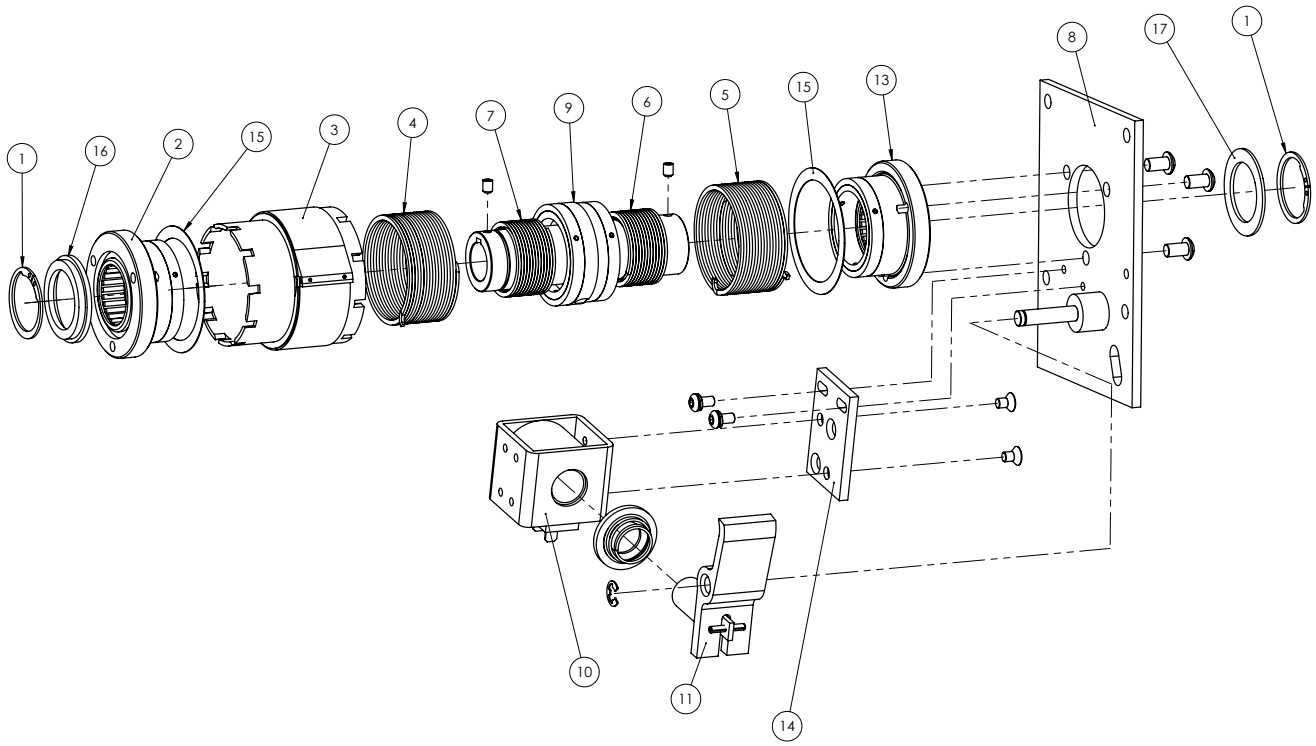
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set and Pin D	Mounting Holes E
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	2 x #10-32 UNC-2B x .19 hex set screw	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			2x 0.187-0.192 hole (4.74-4.88)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	2x M5 x 0.8 x 5.0 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			2x 4.87-5.14 hole (0.191-0.203)	3 x M6 x 1.0 on 52.38 bc

Super CB-6 Clutch/Brake
Component Parts

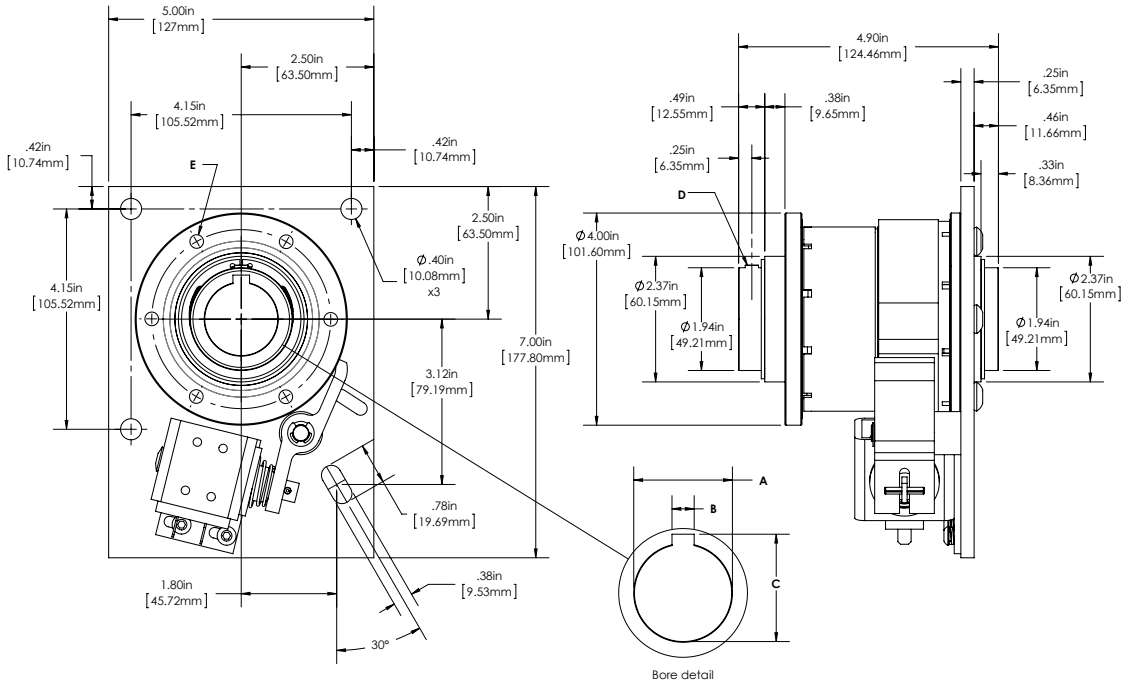


Super CB-6 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03060-65000
2	Input Hub w/ bearing		04060-21000
	Input Hub Metric		14060-21000
3	Control Collar Assy 1-stop	CW	04061-06061
	(specify stops last digit)	CCW	04062-06061
4	Drive Spring	CW	03061-31000
		CCW	03062-31000
5	Brake spring	CW	03061-32000
		CCW	03062-32000
6	Anti-back Spring	CW	03061-33000
		CCW	03062-33000
7	Anti-overrun Spring	CW	03061-34000
		CCW	03062-34000
8	Mounting Plate Assy	CW	03061-03000
		CCW	03062-03000
9	Ouput Shaft Assy		
	3/4" bore		04060-04209
	1" bore		04060-04213
	20.0 H9 bore		14060-04245
	25.0 H9 bore		14060-04247

Super CB-6 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub w/ bearing		03060-22000
14	Coil mount plate		03060-97000
15	Sleeve shim set (2)		03060-66000
16	Input Thrust Washer		04060-17081
17	Brake Thrust Washer		04060-17080

Super CB-7 Clutch/Brake

Dimensions and Specifications



PERFORMANCE	
Static Torque	1500 lb-in (169.5Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	6.75 lb-in²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	400 RPM
Response time, voltage on at full speed	50 ms
Weight	12 lbs.

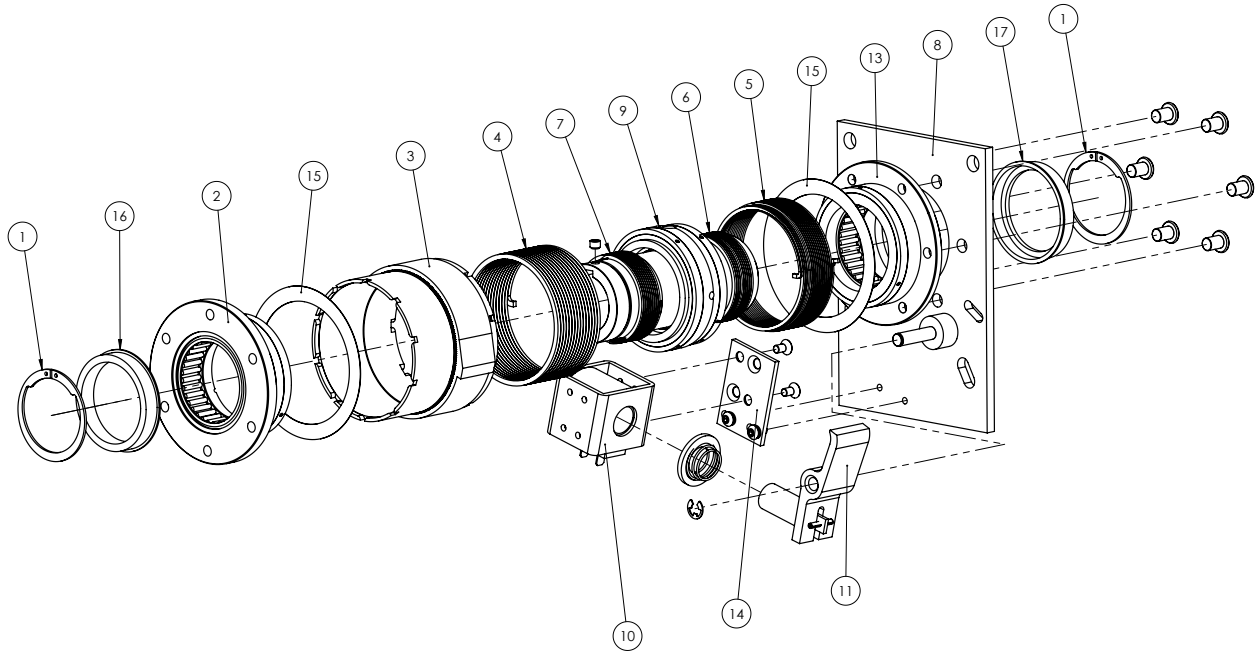
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Scews D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	1x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
25.0 H9 (0.9843-0.9863)	7.983-8.017 (0.3143-0.3156)	28.300-28.552 (1.1142-1.1241)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
30.0 H9 (1.1811-1.1831)	7.983-8.017 (0.3143-0.3156)	33.299-33.551 (1.3110-1.3209)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	1x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Super CB-7 Clutch/Brake
Component Parts

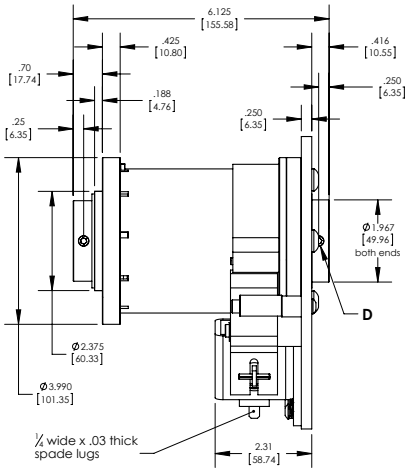


Super CB-7 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		04080-65000
2	Input Hub w/ bearing		25080-21000
	Input Hub Metric		27080-21000
3	Control Collar Assy 1-stop	CW	25071-06061
	(specify stops last digit)	CCW	25072-06061
4	Drive Spring	CW	06081-31000
		CCW	06082-31000
5	Brake spring	CW	06081-32000
		CCW	06082-32000
6	Anti-back Spring	CW	06081-33000
		CCW	06082-33000
7	Anti-overrun Spring	CW	06081-34000
		CCW	06082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Ouput Shaft Assy		
	1" bore		04070-04213
	1 1/4" bore		04070-04217
	25.0 H9 bore		14070-04247
	35.0 H9 bore		14070-04249

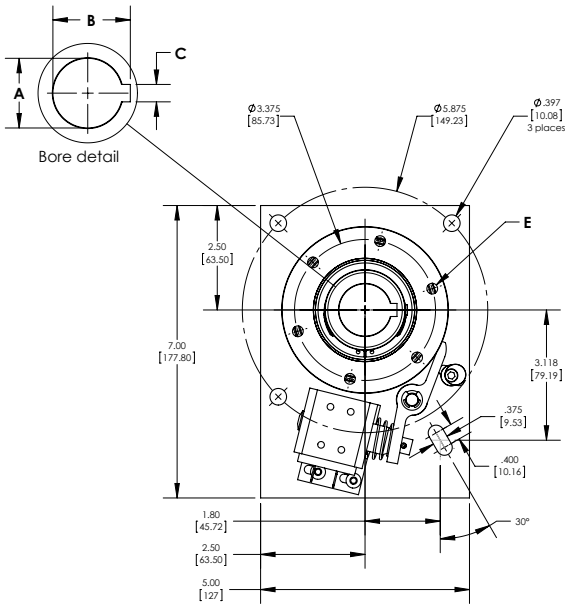
Super CB-7 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub w/ bearing		25080-22000
14	Coil mount plate		03070-97000
15	Sleeve Shim set (2)		03080-66000

Super CB-8 Clutch/Brake

Dimensions and Specifications



RIGHT SIDE VIEW



TOP VIEW

Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	12.84 lb-in²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	300 RPM
Response time, voltage on at full speed	50 ms
Weight	15 lbs.

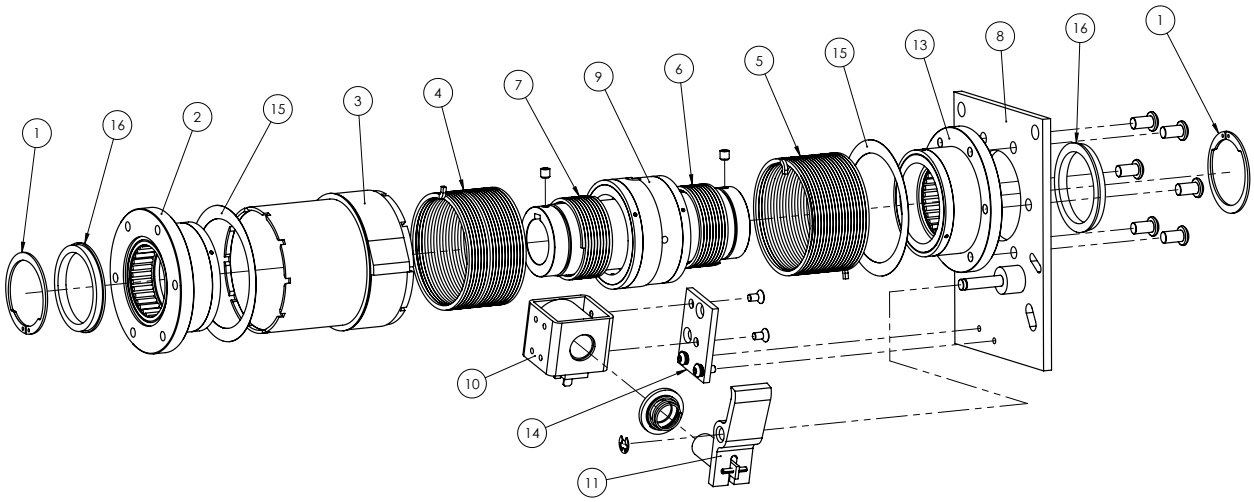
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.94	25.4
12 DC	1.86	6.4
90 DC	0.24	378.6

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Scews D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
40.0 H9 1.5784-1.5772)			2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Super CB-8 Clutch/Brake
Component Parts



Super CB-8 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		04080-65000
2	Input Hub		04080-21000
	Input Hub Metric		14080-21000
3	Control Collar Assy 1-stop	CW	04081-06061
	(specify stops last digit)	CCW	04082-06061
4	Drive Spring	CW	03081-31000
		CCW	03082-31000
5	Brake spring	CW	03081-32000
		CCW	03082-32000
6	Anti-back Spring	CW	03081-33000
		CCW	03082-33000
7	Anti-overrun Spring	CW	03081-34000
		CCW	03082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Ouput Shaft Assy		
	1" bore		04080-04213
	1 1/4" bore		04080-04217
	25.0 H9 bore		14080-04247
	35.0 H9 bore		14080-04249

Super CB-8 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub		04080-22000
14	Coil mount plate		03060-97000
15	Sleeve Shim set (2)		03080-66000
16	Input Thrust Washer		04080-17081
17	Brake Thrust Washer		04080-17080

Standard CB Series

Clutch/Brake Packages

CB Series combination clutches and brakes accurately start and stop loads that are driven by a continuously rotating source. These units actuate from a single AC or DC pulse, stopping the load within +/-1/2° noncumulative at speeds up to 1200 RPM, depending upon the size of the unit. Each unit is preassembled for easy installation.

Features:

- Available in 5 sizes, (4, 5, 6, 7, and 8)
- Cost-effective design
- Adjustable control collars for easy and accurate output stop position
- ROHS compliant
- Load over-travel or back-up is eliminated, units lock the load in both directions when solenoid is off
- Anti-overrun feature prevents the output from running faster than the input
- Brings loads up to speed in 3 milliseconds and stops within 1.5 milliseconds
- AC or DC operated
- Direct retrofit for Super CB-5, CB-6, CB-7, and CB-8
- Permanently lubricated
- Heavy-duty industrial grade coils
- High cycle rate capability
- High torque to size ratio
- Repeatable positioning within +/-1/2°

Typical Applications:

- Riveters
- Punch presses
- Packaging equipment
- Conveyor drives
- Heavy duty machinery
- Rapid cycling equipment

How to order:

CB - **6-** **CW-** **24V-** **3 /4" Bore-** **2**

CB Series
Specify:
Imperial or Metric

Size
CB-4 = **4**
CB-5 = **5**
CB-6 = **6**
CB-7 = 7
CB-8 = **8**

Direction of Rotation
CW = Clockwise
CCW = Counterclockwise

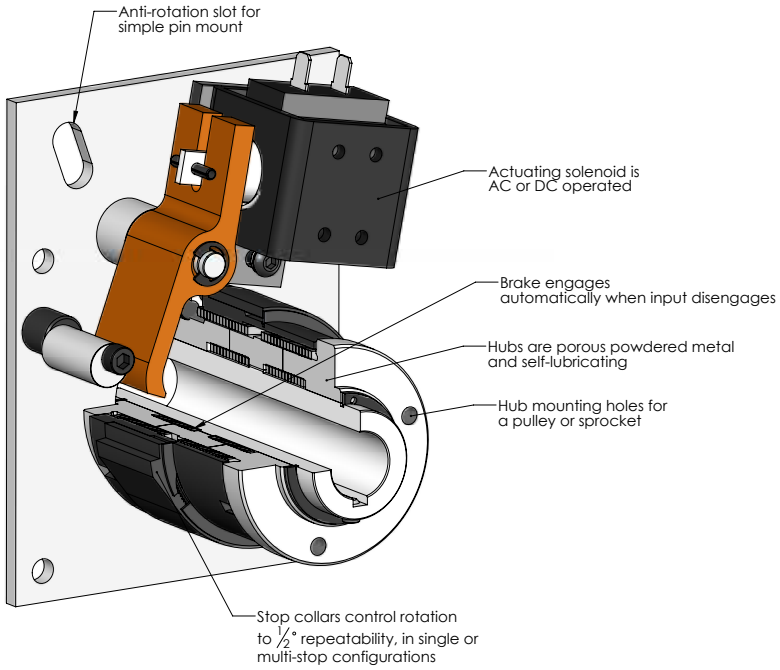
Coil Voltage
12V = 12VDC
24V = 24VDC
90V = 90VDC
115V = 115VAC

Bore Size
CB-4 = **3/8", or 10mm**
CB-5 = **1/2" or 12mm**
CB-6 = **3/4", 1", 20mm, or 25mm**
CB-7 = **1",1 1/4", 1 3/8", 1 1/2" 25, 30, 35 or 40mm H9**
CB-8 = **1",1 1/4", 1 3/8", 1 1/2" 25, 30, 35 or 40mm H9**

Stop Collar
1 = 1 Stop
2 = 2 Stop
4 = 4 Stop

Standard CB Series

Solenoid Operated Combination Clutch/Brake

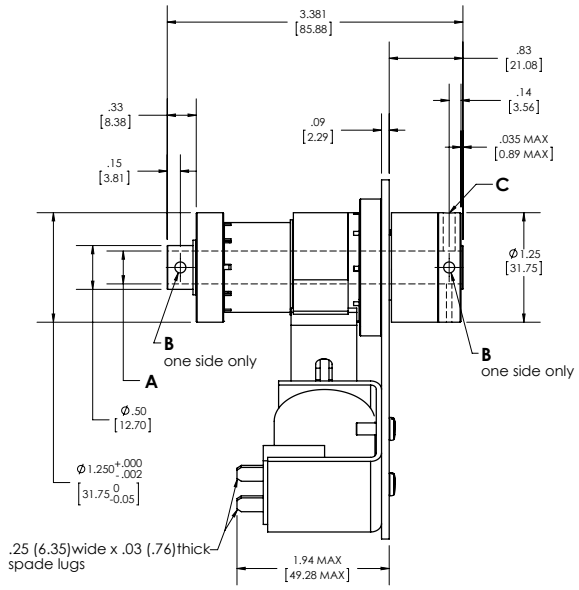


STANDARD CB PERFORMANCE						
		CB-4	CB-5	CB-6	CB-7	CB-8
Static Torque		120 lb-in (13.56Nm)	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)	1,500 lb-in (169.5Nm)	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability		25 lb-in (2.825Nm)	45 lb-in (5.085Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Maxium anti-back holding capability		80 lb-in (9.04Nm)	160 lb-in (18.08Nm)	300 lb-in (33.9Nm)	600 lb-in (67.8Nm)	600 lb-in (67.8Nm)
Inertia, rotating parts		.0636 lb-in²	0.195 lb-in²	1.718 lb-in²	6.75 lb-in²	12.84 lb-in²
Maxium radial bearing load at maxium speed		14 lbs.	32 lbs.	63 lbs.	300 lbs.	300 lbs.
Maxium operating speed		1,200 RPM	750 RPM	500 RPM	400 RPM	300 RPM
Response time, voltage on at full speed		24 ms	27 ms	45 ms	50 ms	50 ms
Weight		2 lbs.	3 lbs.	7 lbs.	12 lbs.	15 lbs.

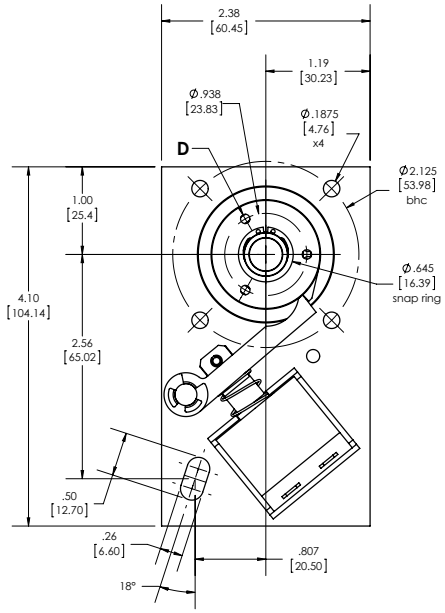
RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
Standard CB-4	1,200	3/8" (9.525mm)	10mm (.394")
Standard CB-5	750	1/2" (12.7mm)	12mm (0.427")
Standard CB-6	500	3/4" (19.05mm) 1" (25.4mm)	20mm (.787") 25mm (.984")
Standard CB-7	400	3/4" (19.05mm) 1" (25.4mm) 1 1/4" (31.75mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")
Standard CB-8	300	1" (25.4mm) 1 1/4" (31.75mm) 1 3/8 (34.9mm) 1 1/2" (38.1mm)	25mm (.984") 30mm (1.181") 35mm (1.38 ") 40mm (1.58")

Standard CB-4 Clutch/Brake

Dimensions and Specifications



RIGHT SIDE VIEW



TOP VIEW

Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	120 lb-in (13.56Nm)
Maxium anti-overrun holding capability	25 lb-in (2.825Nm)
Maxium anti-back holding capability	80 lb-in (9.04Nm)
Inertia, rotating parts	.0636 lb-in²
Maxium radial bearing load at max speed	14 lbs.
Maxium operating speed	1,200 RPM
Response time, voltage on at full speed	24 ms
Weight	2 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

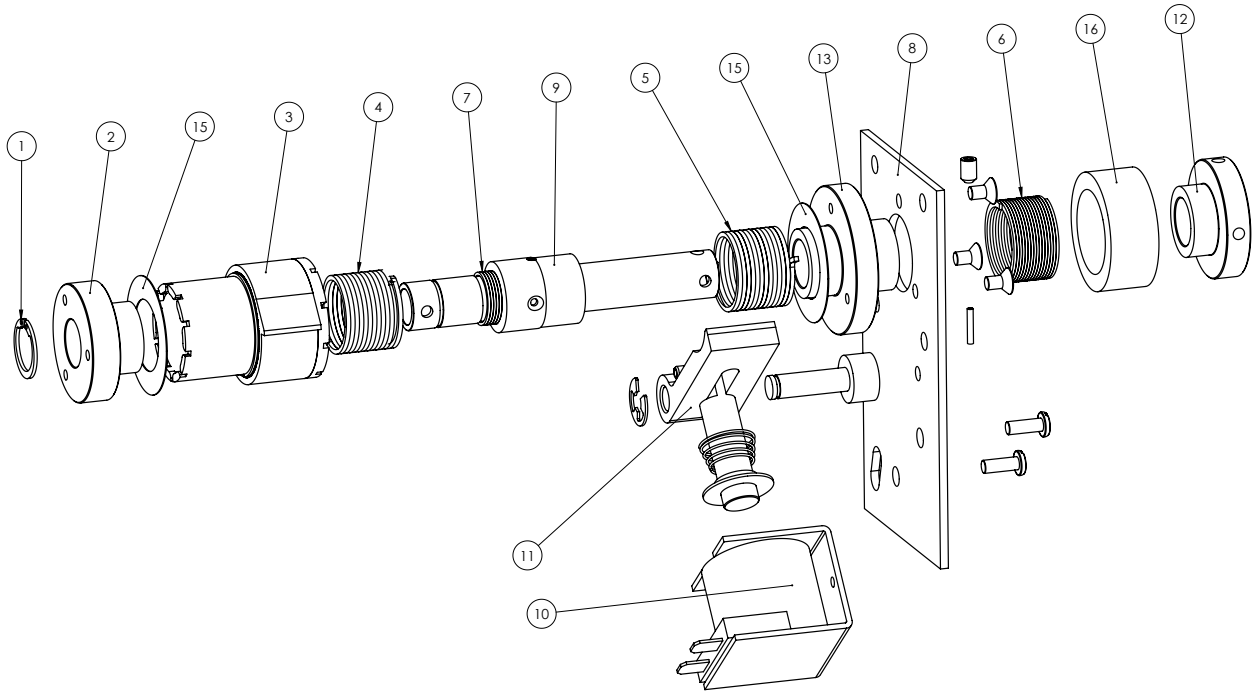
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B	Set Screws C	Mounting Holes D
0.376-0.378 (9.55-9.61)	0.124-0.129 (3.14-3.28)	#8-32 x 0.188 hex set screw	3 x #6-32 UNC-2B on 0.938 b.c.
Metric Bores			
10.0 H9 (0.3937-0.3951)	2.97-3.08 (0.117-0.121)	M4 x 0.7 x 5.0 hex set screw	3x M4 x 0.7 on 23.83 bc

Standard CB-4 Clutch/Brake

Component Parts

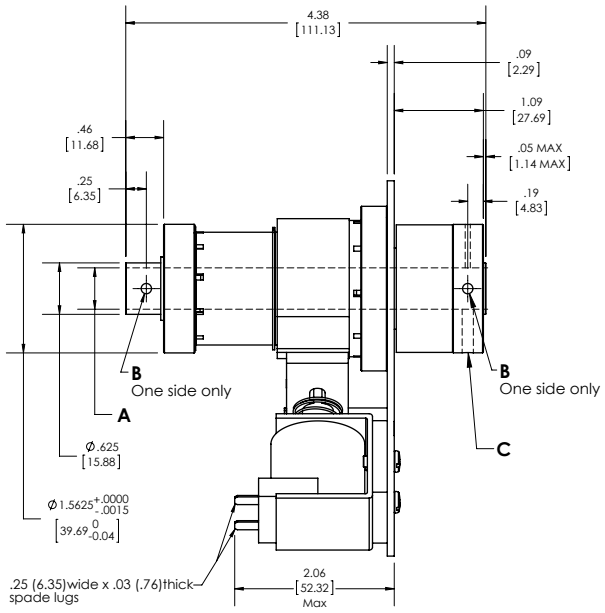


CB-4 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03040-65000
2	Input Hub		03040-21000
	Input Hub Metric		13040-21000
3	Control Collar Assy 1-stop	CW	03041-06061
	(specify stops last digit)	CCW	03042-06061
4	Drive Spring	CW	03041-31000
		CCW	03042-31000
5	Brake spring	CW	03041-32000
		CCW	03042-32000
6	Anti-back Spring	CW	03041-33000
		CCW	03042-33000
7	Anti-overrun Spring	CW	03041-34000
		CCW	03042-34000
8	Mounting Plate Assy	CW	03041-03000
		CCW	03042-03000
9	Output Shaft Assy		
	3/8" bore		03040-04203
	10.0 H9 bore		13040-04240

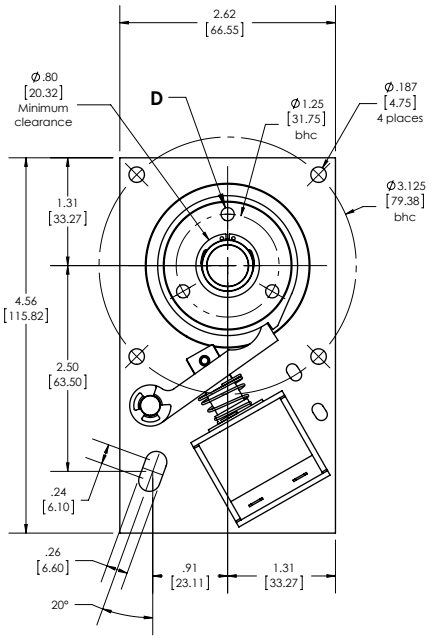
CB-4 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
12	Anti-back Hub		03040-28000
	Anti-back Hub Metric		13040-28000
13	Brake Hub		03040-22000
15	Sleeve Shim set (2)		03040-66000
16	Dust Cover (AB spring)		03040-29000

Standard CB-5 Clutch/Brake

Dimensions and Specifications



RIGHT SIDE VIEW



TOP VIEW

Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)
Maxium anti-back holding capability	160 lb-in (18.08Nm)
Inertia, rotating parts	0.195 lb-in²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	27 ms
Weight	3 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

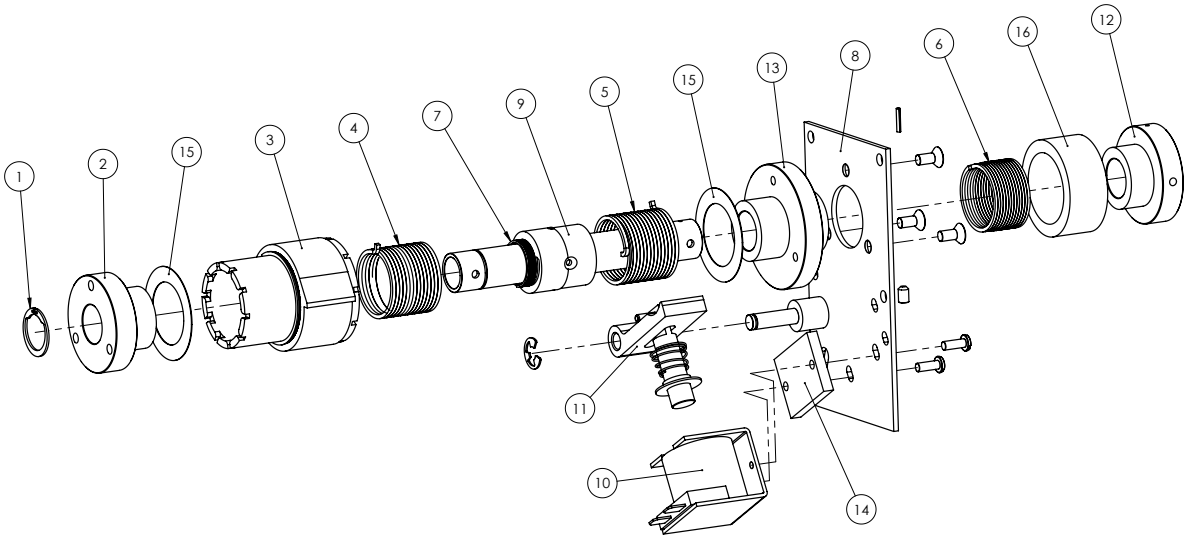
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B	Set Screws C	Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)	#8-32 x 0.25 hex set screw	3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)	M4 x 0.7 x 6.0 hex set screw	3x M5 x 0.8 on 31.75 bc

Standard CB-5 Clutch/Brake

Component Parts

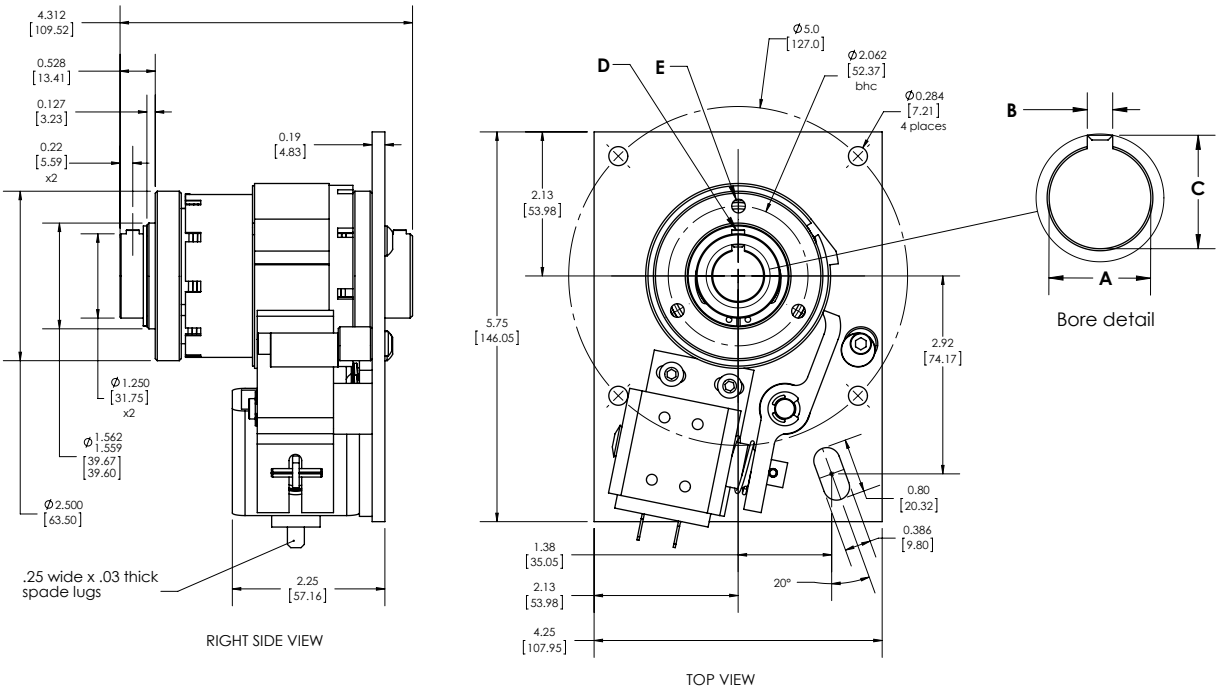


CB-5 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub		03050-21000
	Input Hub Metric		13050-21000
3	Control Collar Assy 1-stop	CW	03051-06061
	(specify stops last digit)	CCW	03052-06061
4	Drive Spring	CW	03051-31000
		CCW	03052-31000
5	Brake spring	CW	03051-32000
		CCW	03052-32000
6	Anti-back Spring	CW	03051-33000
		CCW	03052-33000
7	Anti-overrun Spring	CW	03051-34000
		CCW	03052-34000
8	Mounting Plate Assy	CW	03051-03000
		CCW	03052-03000
9	Output Shaft Assy		
	1/2" bore		03050-04205
	12.0 H9 bore		13050-04242

CB-5 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
12	Anti-back Hub		03050-28000
	Anti-back Hub Metric		13050-28000
13	Brake Hub		03050-22000
14	Coil mount plate		03050-97000
15	Sleeve shim set (2)		03050-66000
16	Dust Cover (AB spring)		03050-29000

Standard CB-6 Clutch/Brake

Dimensions and Specifications



Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	500 lb-in (56.5Nm)
Maxium anti-overrun holding capability	300 lb-in (33.9Nm)
Maxium anti-back holding capability	300 lb-in (33.9Nm)
Inertia, rotating parts	1.718 lb-in²
Maxium radial bearing load at max speed	63 lbs.
Maxium operating speed	500 RPM
Response time, voltage on at full speed	45 ms
Weight	7 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

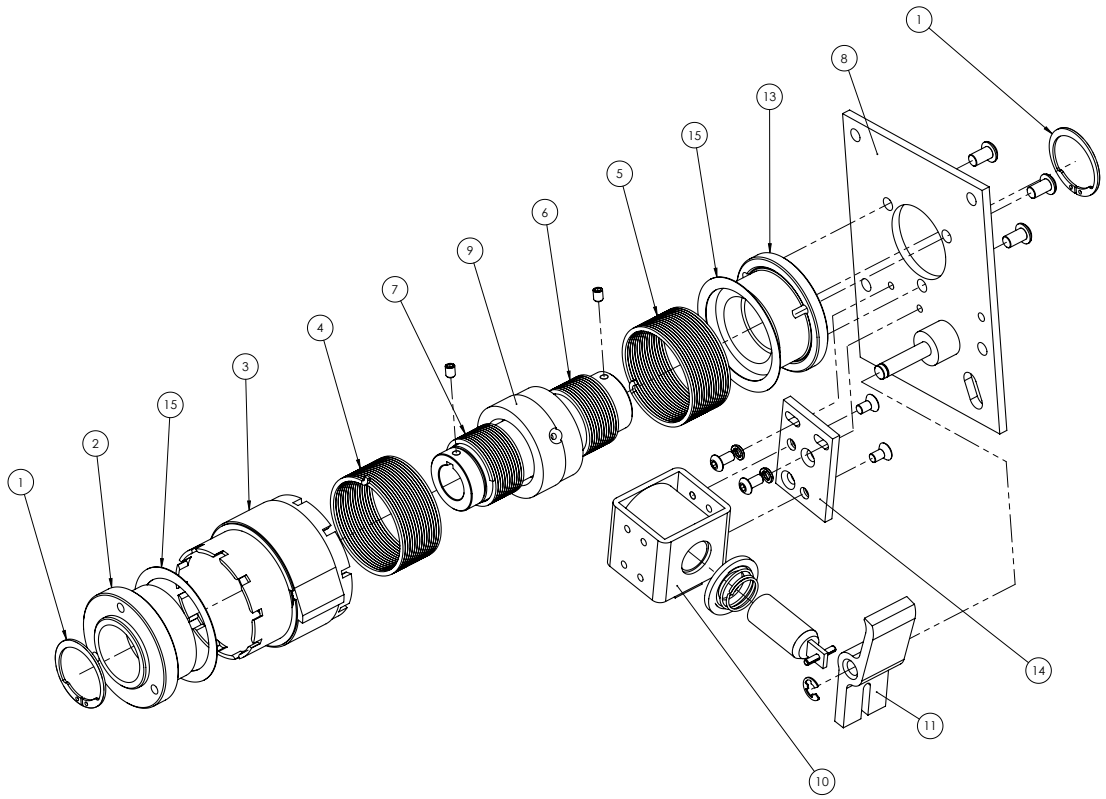
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set and Pin D	Mounting Holes E
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	2 x #10-32 UNC-2B x .19 hex set screw	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			2x 0.187-0.192 hole (4.74-4.88)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	2x M5 x 0.8 x 5.0 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			2x 4.87-5.14 hole (0.191-0.203)	3 x M6 x 1.0 on 52.38 bc

Standard CB-6 Clutch/Brake

Component Parts

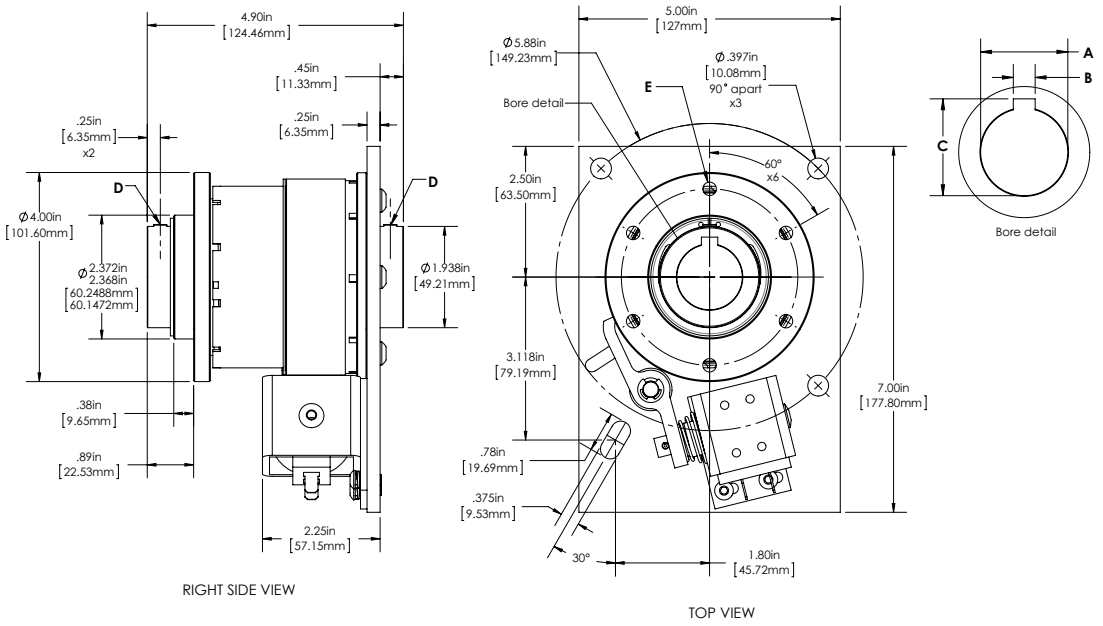


CB-6 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03060-65000
2	Input Hub		03060-21000
	Input Hub Metric		13060-21000
3	Control Collar Assy 1-stop	CW	03061-06061
	(specify stops last digit)	CCW	03062-06061
4	Drive Spring	CW	03061-31000
		CCW	03062-31000
5	Brake spring	CW	03061-32000
		CCW	03062-32000
6	Anti-back Spring	CW	03061-33000
		CCW	03062-33000
7	Anti-overrun Spring	CW	03061-34000
		CCW	03062-34000
8	Mounting Plate Assy	CW	03061-03000
		CCW	03062-03000
9	Ouput Shaft Assy		
	3/4" bore		03060-04209
	1" bore		03060-04213
	20.0 H9 bore		13060-04245
	25.0 H9 bore		13060-04247

CB-6 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub		03060-22000
14	Coil mount plate		03060-97000
15	Sleeve shim set (2)		03060-66000

Standard CB-7 Clutch/Brake

Dimensions and Specifications



Dimensions are in inches [millimeters]
Right handed clutch shown (rotates counter clockwise viewed from top)

PERFORMANCE	
Static Torque	1500 lb-in (169.5Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	6.75 lb-in²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	400 RPM
Response time, voltage on at full speed	50 ms
Weight	12 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

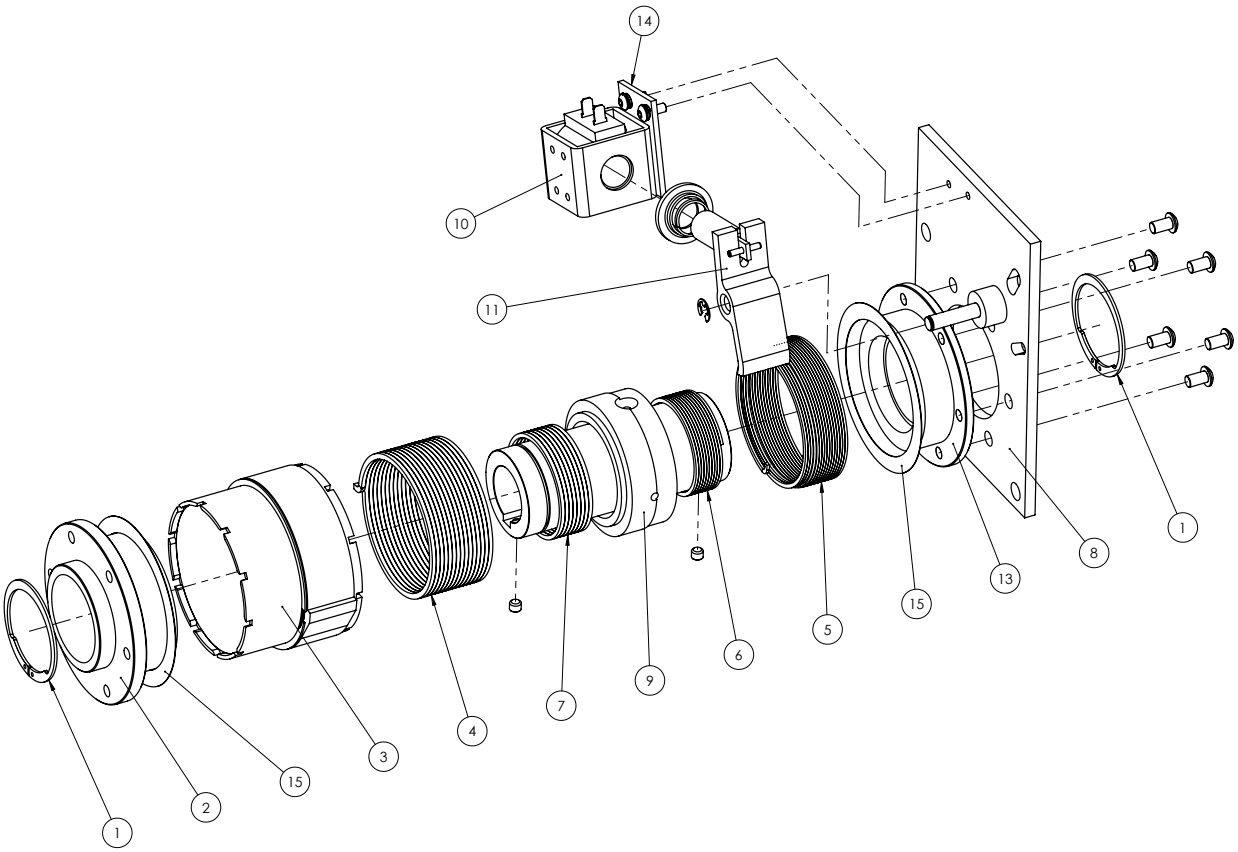
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Scews D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
25.0 H9 (0.9843-0.9863)	7.983-8.017 (0.3143-0.3156)	28.300-28.552 (1.1142-1.1241)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
30.0 H9 (1.1811-1.1831)	7.983-8.017 (0.3143-0.3156)	33.299-33.551 (1.3110-1.3209)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Standard CB-7 Clutch/Brake

Component Parts

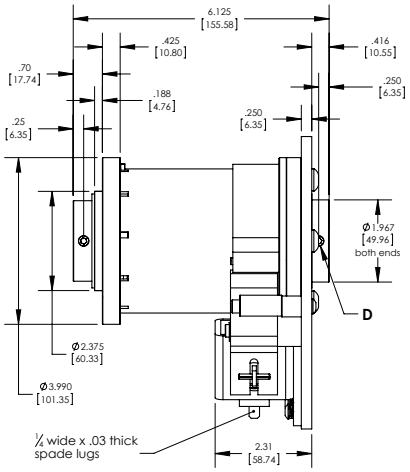


CB-7 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03080-65000
2	Input Hub		06080-21000
	Input Hub Metric		16080-21000
3	Control Collar Assy 1-stop	CW	03071-06061
	(specify stops last digit)	CCW	03072-06061
4	Drive Spring	CW	06081-31000
		CCW	06082-31000
5	Brake spring	CW	06081-32000
		CCW	06082-32000
6	Anti-back Spring	CW	06081-33000
		CCW	06082-33000
7	Anti-overrun Spring	CW	06081-34000
		CCW	06082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Ouput Shaft Assy		
	1" bore		03070-04213
	1 1/4" bore		03070-04217
	25.0 H9 bore		13070-04247
	35.0 H9 bore		13070-04249

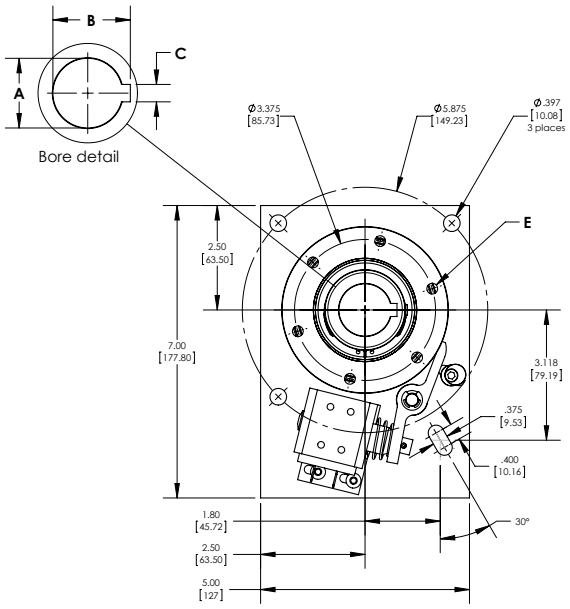
CB-7 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub		03070-22000
14	Coil mount plate		03070-97000
15	Sleeve Shim set (2)		03080-66000

Standard CB-8 Clutch/Brake

Dimensions and Specifications



RIGHT SIDE VIEW



TOP VIEW

Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	2,500 lb-in (565Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	12.84 lb-in²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	300 RPM
Response time, voltage on at full speed	50 ms
Weight	15 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

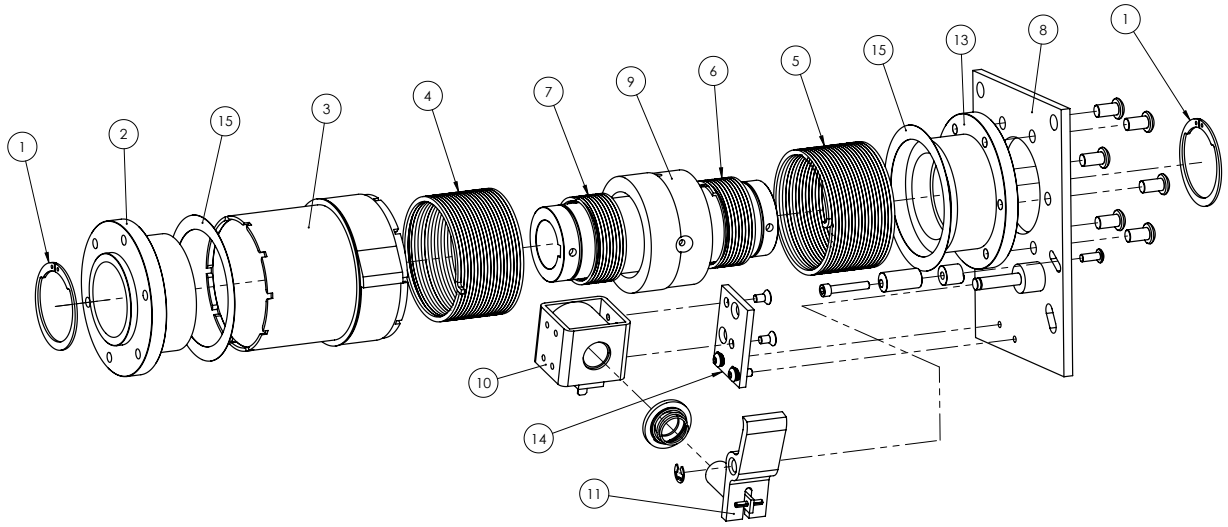
(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set Scews D	Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	2x #1/4-20 x 0.31 hex set screw	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.
40.0 H9 1.5784-1.5772)			2x M6 x 1.0 x 10.0 hex set screw	6x M8 x 1.25 on 85.73 b.c.

Standard CB-8 Clutch/Brake

Component Parts



CB-8 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03080-65000
2	Input Hub		03080-21000
	Input Hub Metric		13080-21000
3	Control Collar Assy 1-stop	CW	03081-06061
	(specify stops last digit)	CCW	03082-06061
4	Drive Spring	CW	03081-31000
		CCW	03082-31000
5	Brake spring	CW	03081-32000
		CCW	03082-32000
6	Anti-back Spring	CW	03081-33000
		CCW	03082-33000
7	Anti-overrun Spring	CW	03081-34000
		CCW	03082-34000
8	Mounting Plate Assy	CW	03081-03000
		CCW	03082-03000
9	Ouput Shaft Assy		
	1" bore		03080-04213
	1 1/4" bore		03080-04217
	25.0 H9 bore		13080-04247
	35.0 H9 bore		13080-04249

CB-8 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub		03080-22000
14	Coil mount plate		03060-97000
15	Sleeve Shim set (2)		03080-66000

SCB Short Series

Wrap Spring Clutch/Brake Package

The SCB (Short CB) Series features three models of pre-assembled, solenoid actuated, wrap spring clutch/brake packages. SCB units operate identically to CB and Super CB units, but are designed with axial space constraint in mind. SCB units have lower braking torque as compared with CB units.

- Brings loads up to speed in 3 milliseconds
- AC or DC operated
- Permanently lubricated
- Heavy-duty industrial grade coils
- High cycle rate capability
- High torque to size ratio

Features:

- Available in 3 sizes, (4, 5, and 8)
- Adjustable control collars for easy and accurate output stop position
- ROHS compliant

Typical Applications:

- Riveters
- Punch Presses
- Packaging equipment
- Conveyor Drives
- Heavy Duty machinery

How to order:

SCB - **8-** **CW-** **24V-** **1 1/4" Bore-** **2**

SCB Series
Specify:
Imperial or Metric

Size
SP-4 = 4
SP-5 = 5
SP-8 = **8**

Direction of Rotation
CW = Clockwise
CCW = Counterclockwise

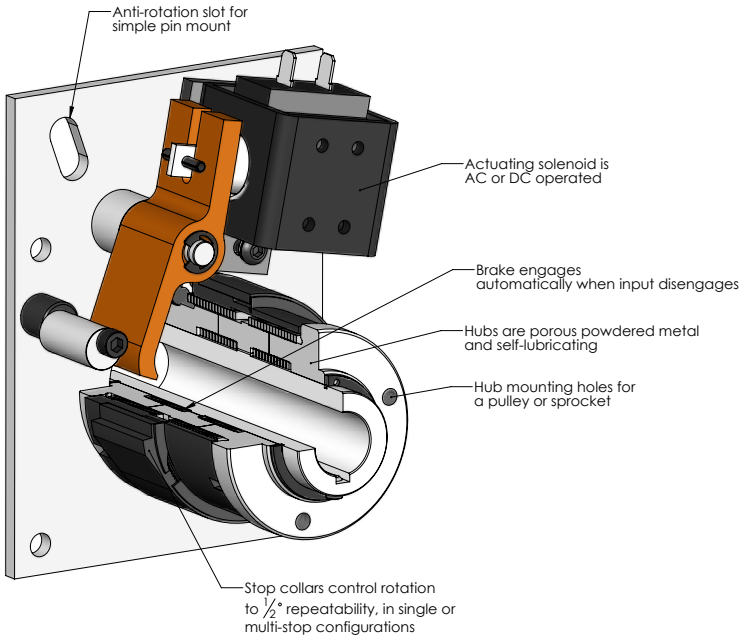
Coil Voltage
12V = 12VDC
24V = 24VDC
90V = 90VDC
115V = 115VAC

Bore Size
SP-4 = **3/8", or 10mm**
SP-5 = **1/2" or 12mm**
SP-8 = **1",1 1/4", 1 3/8", 1 1/2"**
25, 30, 35 or 40mm H9

Stop Collar
1 = 1 Stop
2 = 2 Stop
4 = 4 Stop

SCB Short Series

Solenoid Operated Clutch/Brake Package

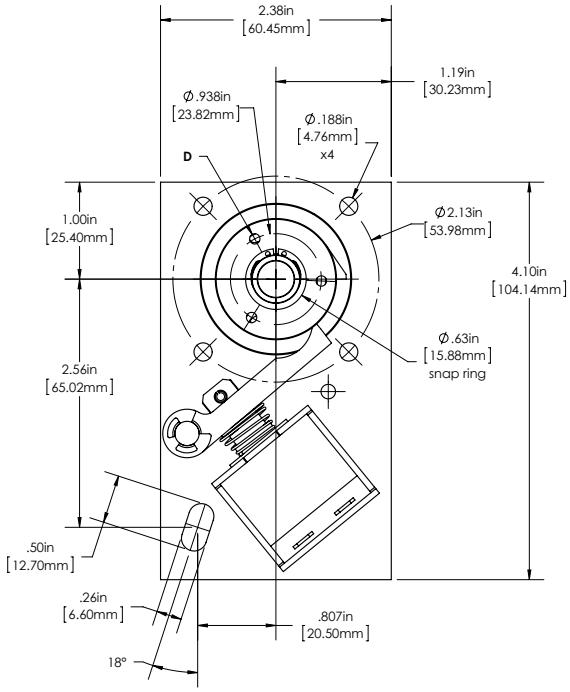


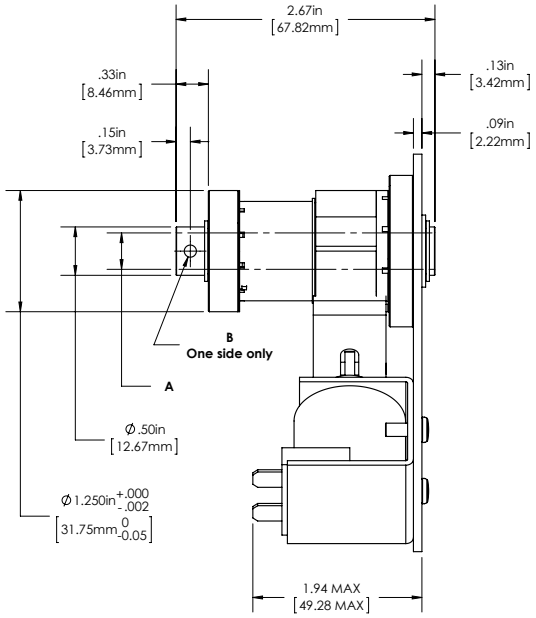
CB SHORT PERFORMANCE			
	Short CB-4	Short CB-5	Short CB-8
Static Torque	120 lb-in (13.56Nm)	250 lb-in (28.25Nm)	1500 lb-in (169.5Nm)
Maxium anti-overrun holding capability	25 lb-in (2.825Nm)	45 lb-in (5.085Nm)	600 lb-in (67.8Nm)
Maxium anti-back holding capability	25 lb-in (2.825Nm)	45 lb-in (5.985Nm)	600 lb-in (67.8Nm)
Inertia, rotating parts	.0636 lb-in²	0.195 lb-in²	6.75 lb-in²
Maxium radial bearing load at maxium speed	14 lbs.	32 lbs.	300 lbs.
Maxium operating speed	1,200 RPM	750 RPM	400 RPM
Response time, voltage on at full speed	24 ms	27 ms	50 ms
Weight	2 lbs.	3 lbs.	12 lbs.

RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
Short CB-4	1,200	3/8" (9.525mm)	10mm (.394")
Short CB-5	750	1/2" (12.7mm)	12mm (0.427")
Short CB-8	300	1" (25.4mm) 1 1/4" (31.75mm) 1 3/8 (34.9mm) 1 1/2" (38.1mm)	35mm (1.38") 40mm (1.58")

SCB-4 Clutch/Brake Package

Dimensions and Specifications





PERFORMANCE	
Static Torque	120 lb-in (13.56Nm)
Maxium anti-overrun holding capability	25 lb-in (2.825Nm)
Maxium anti-back holding capability	25 lb-in (2.825Nm)
Inertia, rotating parts	.0636 lb-in²
Maxium radial bearing load at max speed	14 lbs.
Maxium operating speed	1,200 RPM
Response time, voltage on at full speed	24 ms
Weight	2 lbs.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

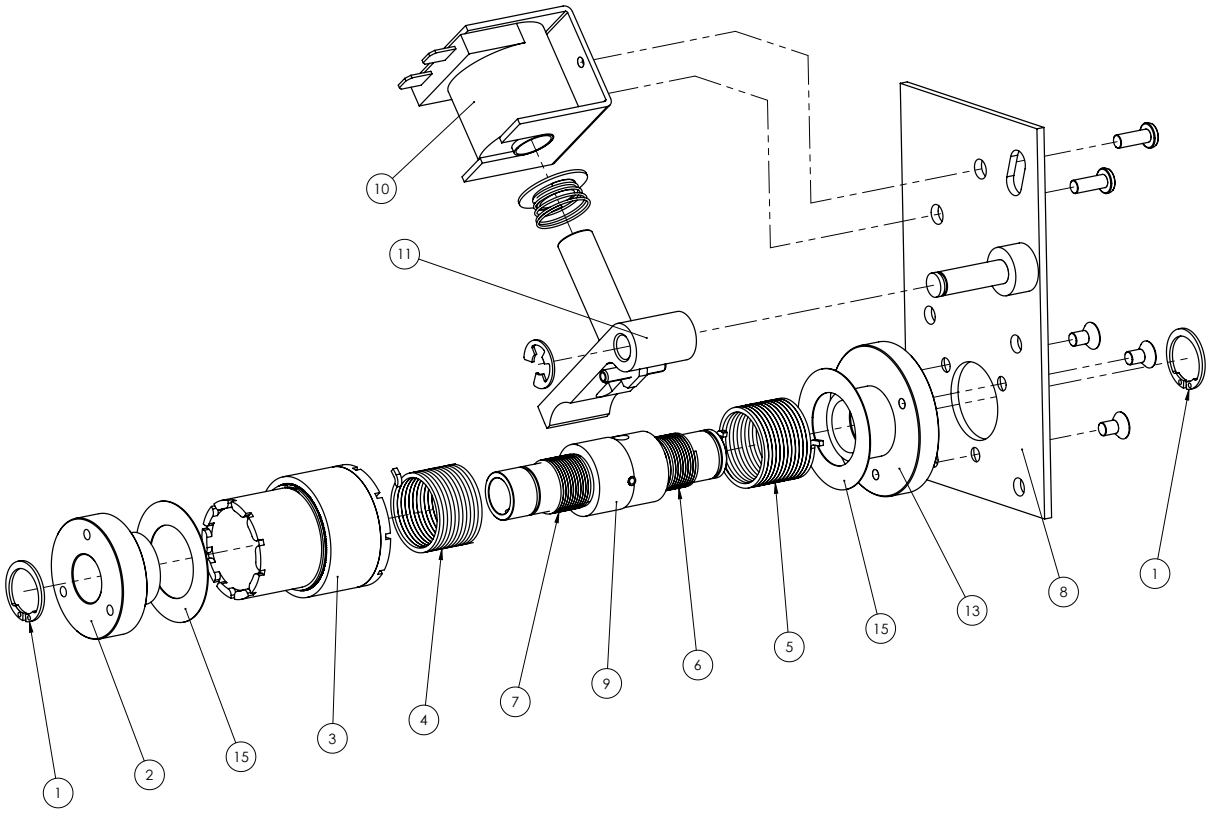
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Holes D
0.376-0.378 (9.55-9.61)	0.124-0.129 (3.14-3.28)		3 x #6-32 UNC-2B on 0.938 b.c.
Metric Bores			
10.0 H9 (0.3937-0.3951)	2.97-3.08 (0.117-0.121)		3x M4 x 0.7 on 23.83 bc

SCB-4 Clutch/Brake Package

Component Parts

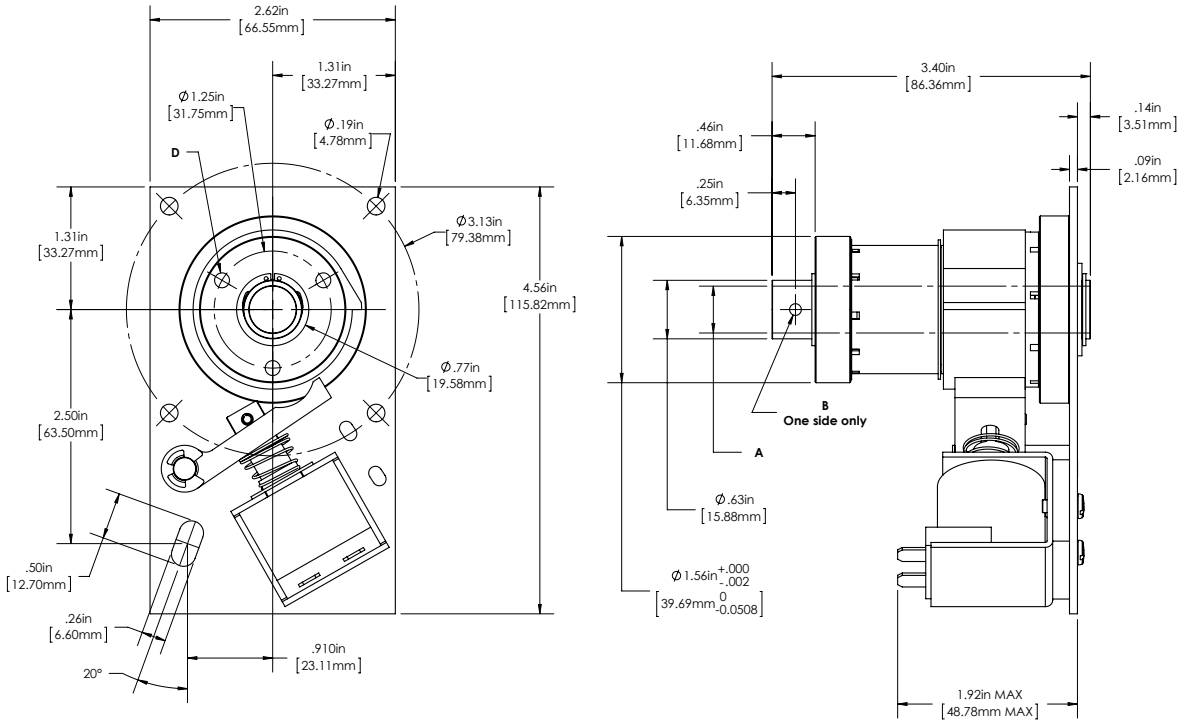


SCB-4 Short Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03040-65000
2	Input Hub		03040-21000
	Input Hub Metric		13040-21000
3	Control Collar Assy 1-stop	CW	03041-06061
	(specify stops last digit)	CCW	03042-06061
4	Drive Spring	CW	03041-31000
		CCW	03042-31000
5	Brake spring	CW	03041-32000
		CCW	03042-32000
6	Anti-back Spring	CW	03041-33000
		CCW	03042-33000
7	Anti-overrun Spring	CW	03041-34000
		CCW	03042-34000
8	Mounting Plate Assy	CW	03041-03000
		CCW	03042-03000
9	Output Shaft Assy		
	3/8" bore		06040-04203
	10.0 H9 bore		26040-04240

SCB-4 Short Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
13	Brake Hub		06040-22000
15	Sleeve Shim set (2)		03040-66000

SCB-5 Clutch/Brake Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Maxium anti-overrun holding capability	45 lb-in (5.085Nm)
Maxium anti-back holding capability	45 lb-in (5.085Nm)
Inertia, rotating parts	0.195 lb-in²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	27 ms
Weight	3 lbs.

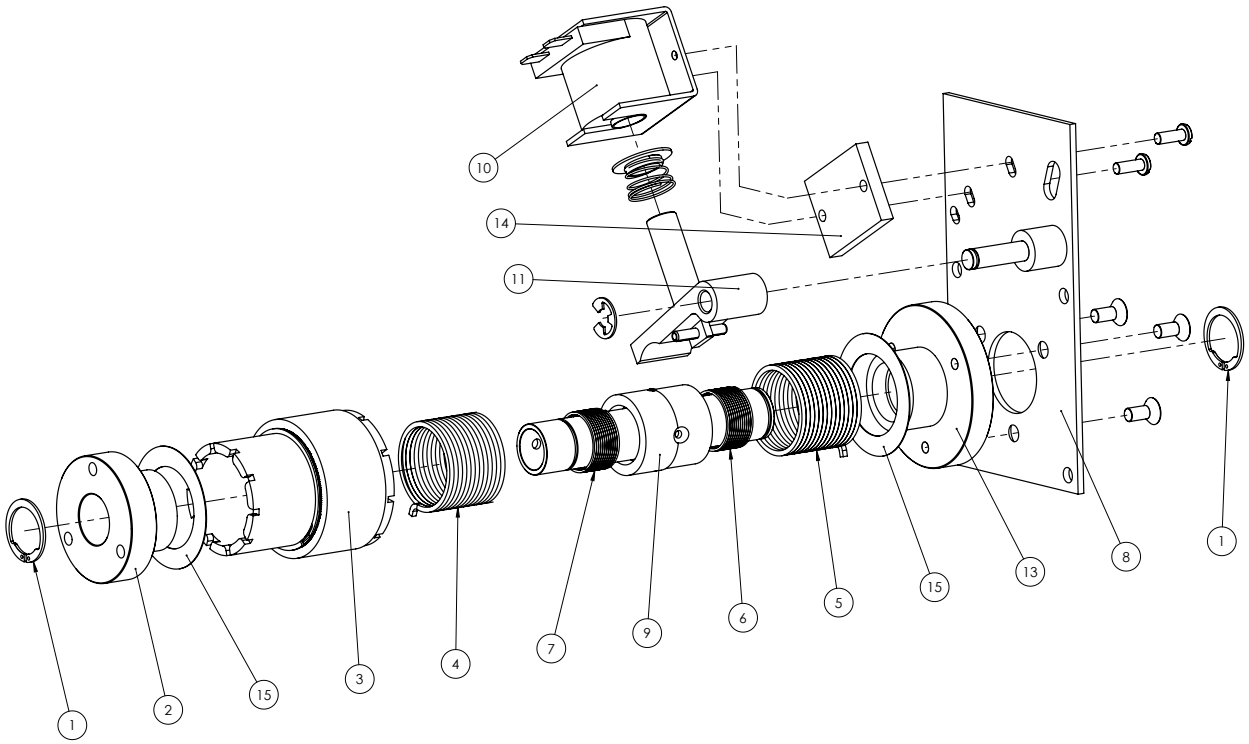
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)		3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)		3x M5 x 0.8 on 31.75 bc

SCB-5 Clutch/Brake Package
Component Parts

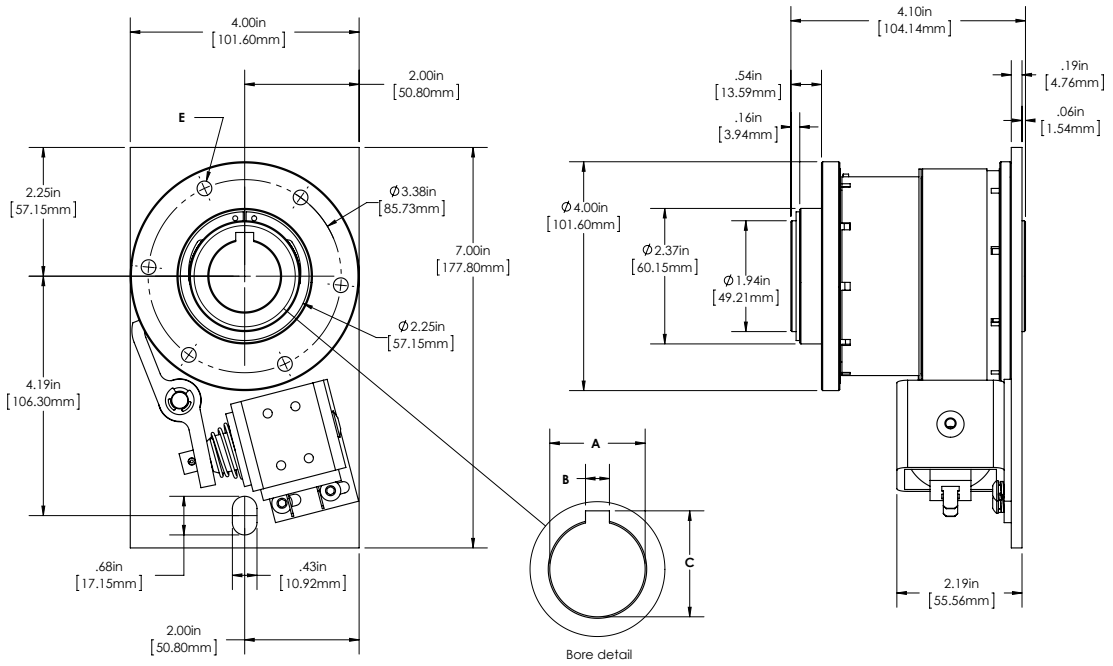


SCB-5 Short Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub		03050-21000
	Input Hub Metric		13050-21000
3	Control Collar Assy 1-stop	CW	03051-06061
	(specify stops last digit)	CCW	03052-06061
4	Drive Spring	CW	03051-31000
		CCW	03052-31000
5	Brake spring	CW	03051-32000
		CCW	03052-32000
6	Anti-back Spring	CW	03051-33000
		CCW	03052-33000
7	Anti-overrun Spring	CW	03051-34000
		CCW	03052-34000
8	Mounting Plate Assy	CW	03051-03000
		CCW	03052-03000
9	Output Shaft Assy		
	1/2" bore		06050-04205
	12.0 H9 bore		26050-04242

SCB-5 Short Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
13	Brake Hub		06050-22000
14	Coil mount plate		03050-97000
15	Sleeve shim set (2)		03050-66000

SCB-8 Clutch/Brake Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	1500 lb-in (169.5Nm)
Maxium anti-overrun holding capability	600 lb-in (67.8Nm)
Maxium anti-back holding capability	600 lb-in (67.8Nm)
Inertia, rotating parts	6.75 lb-in²
Maxium radial bearing load at max speed	300 lbs.
Maxium operating speed	400 RPM
Response time, voltage on at full speed	50 ms
Weight	12 lbs.

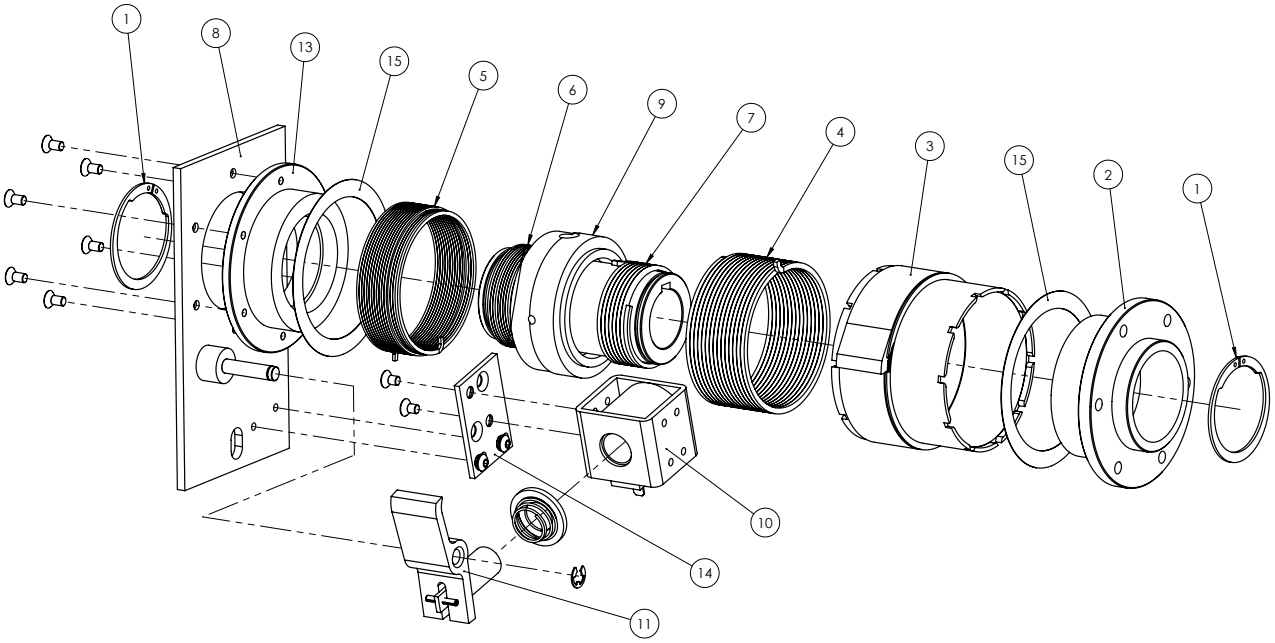
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C		Mounting Holes E
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)		6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)		6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)		6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)		6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
25.0 H9 (0.9843-0.9863)	7.983-8.017 (0.3143-0.3156)	28.300-28.552 (1.1142-1.1241)		6x M8 x 1.25 on 85.73 b.c.
30.0 H9 (1.1811-1.1831)	7.983-8.017 (0.3143-0.3156)	33.299-33.551 (1.3110-1.3209)		6x M8 x 1.25 on 85.73 b.c.
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)		6x M8 x 1.25 on 85.73 b.c.

SCB-8 Clutch/Brake Package
Component Parts



SCB-8 Short Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		06080-65000
2	Input Hub		06080-21000
	Input Hub Metric		26080-21000
3	Control Collar Assy 1-stop	CW	06081-06061
	(specify stops last digit)	CCW	06082-06061
4	Drive Spring	CW	06081-31000
		CCW	06082-31000
5	Brake spring	CW	06081-32000
		CCW	06082-32000
6	Anti-back Spring	CW	06081-33000
		CCW	06082-33000
7	Anti-overrun Spring	CW	06081-34000
		CCW	06082-34000
8	Mounting Plate Assy	CW	06081-03000
		CCW	06082-03000
9	Ouput Shaft Assy		
	1" bore		06080-04213
	1 1/4" bore		06080-04217
	25.0 H9 bore		26080-04247
	35.0 H9 bore		26080-04249

SCB-8 Short Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Brake Hub		06080-22000
14	Coil mount plate		03060-97000
15	Sleeve Shim set (2)		03080-66000

SAC Series

Wrap Spring Clutch Package

The SAC Series features three models of pre-assembled, solenoid actuated, wrap spring clutch packages. SAC units operate from a single AC or DC pulse to accurately start loads at speeds up to 1200 RPM, depending on size. Adjustable stop collars provide easy and accurate output stop positioning.

- Brings loads up to speed in 3 milliseconds
- AC or DC operated
- Permanently lubricated
- Heavy-duty industrial grade coils
- High cycle rate capability
- High torque to size ratio

Features:

- Available in 3 sizes, (4, 5, and 6)
- Cost-effective design
- Adjustable control collars for easy and accurate output stop position
- ROHS compliant

Typical Applications:

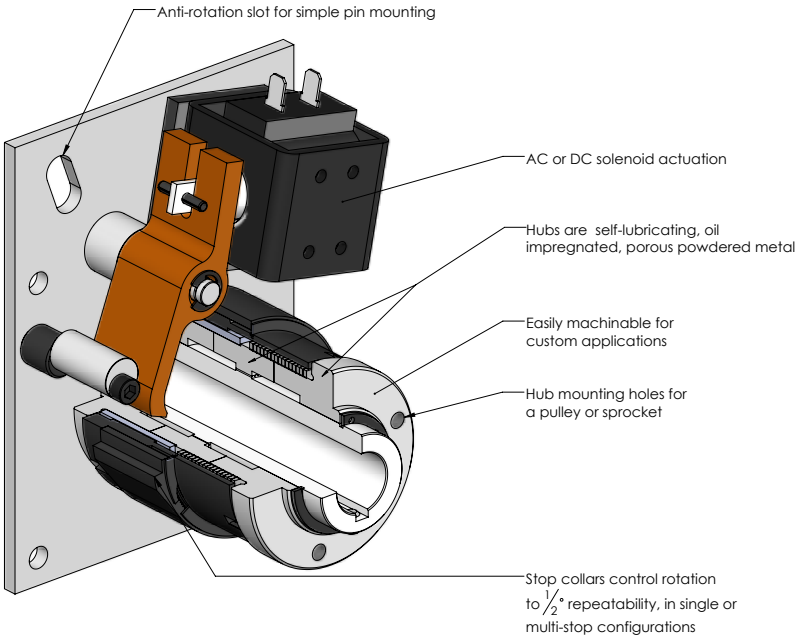
- Computer peripherals
- Business machines
- Packaging equipment
- Check cancellers
- Riveters

How to order:

SAC -	6-	CW-	24V-	3 /4" Bore-	2
SAC Series Specify: **Imperial or Metric**	**Size** SAC-4 = 4 SAC-5 = 5 SAC-6 = **6**	**Direction of Rotation** **CW** = Clockwise **CCW** = Counterclockwise	**Coil Voltage** **12V** = 12VDC **24V = 24VDC** **90V** = 90VDC **115V = 115VAC**	**Bore Size** SAC-4 = 3/8", or 10mm SAC-5 = 1/2" or 12mm SAC-6 = 3/4", 1", 20mm, or 25mm	**Stop Collar** 1 = 1 Stop 2 = 2 Stop 4 = 4 Stop

SAC Series

Solenoid Operated Clutch Package

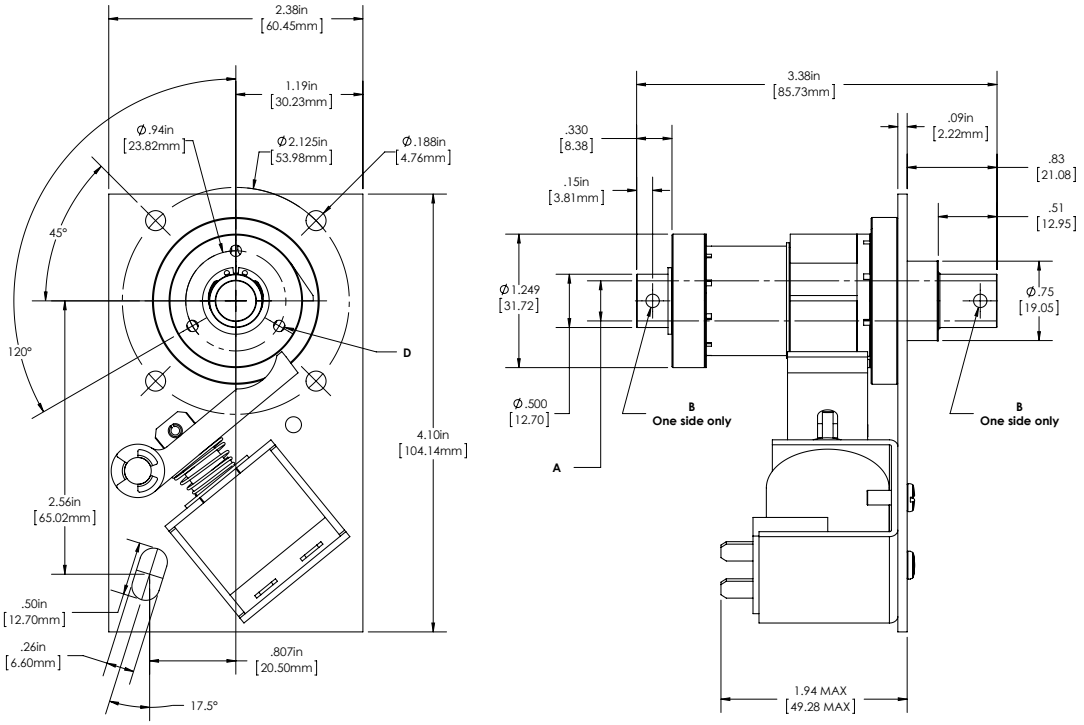


SAC PERFORMANCE				
		SAC-4	SAC-5	SAC-6
Static Torque		120 lb-in (13.56Nm)	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)
Shaft bores		0.375 in (9.525mm)	0.500 in (12.70mm)	0.75 / 1.00 in (19.05/25.4mm)
Inertia, rotating parts		.0636 lb-in²	0.195 lb-in²	1.718 lb-in²
Maxium radial bearing load at maxium speed		14 lbs.	32 lbs.	63 lbs.
Maxium operating speed		1,200 RPM	750 RPM	500 RPM
Response time, voltage on at full speed		24 ms	27 ms	45 ms
Weight		2 lbs.	3 lbs.	7 lbs.

RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
SAC-4	1,200	3/8" (9.525mm)	10mm (.394")
SAC-5	750	1/2" (12.7mm)	12mm (0.427")
SAC-6	500	3/4" (19.05mm) 1" (25.4mm)	20mm (.787") 25mm (.984")

SAC-4 Clutch Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	120 lb-in (13.56Nm)
Inertia, rotating parts	.0636 lb-in²
Maxium radial bearing load at max speed	14 lbs.
Maxium operating speed	1,200 RPM
Response time, voltage on at full speed	24 ms
Weight	2 lbs.

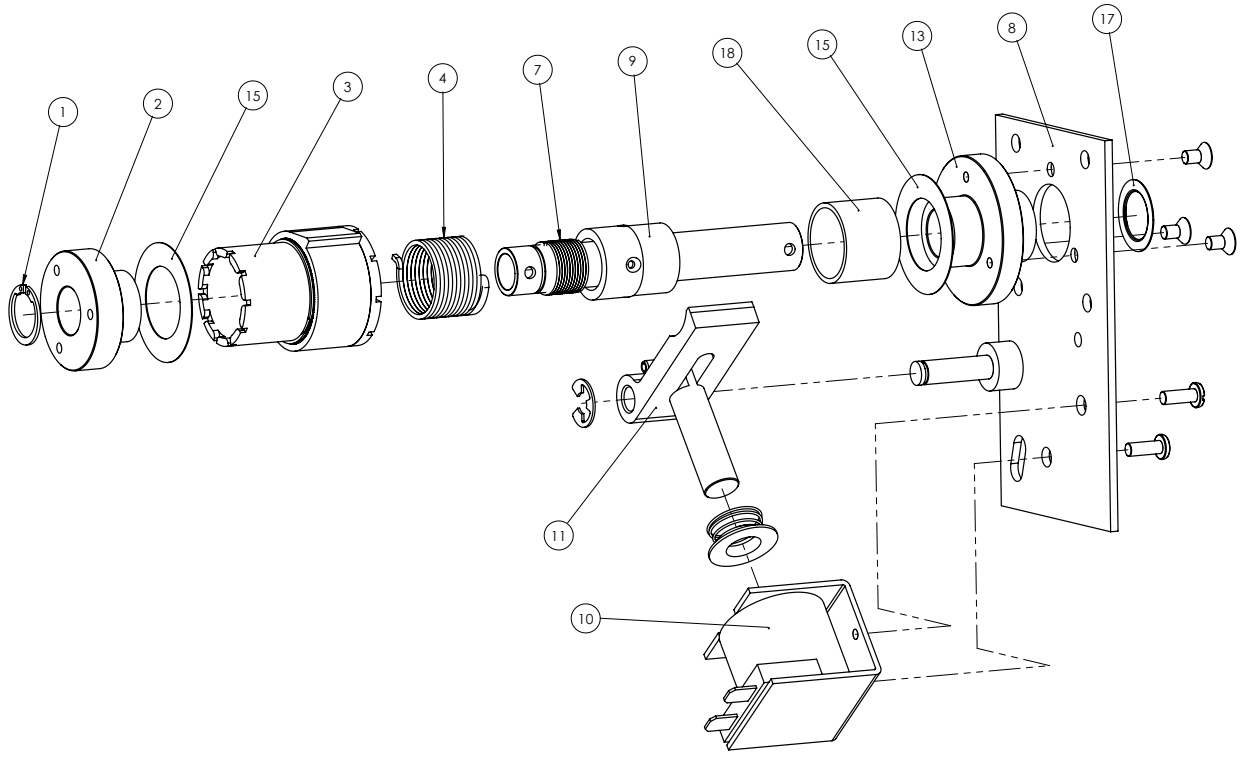
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Holes D
0.376-0.378 (9.55-9.61)	0.124-0.129 (3.14-3.28)		3 x #6-32 UNC-2B on 0.938 b.c.
Metric Bores			
10.0 H9 (0.3937-0.3951)	2.97-3.08 (0.117-0.121)		3x M4 x 0.7 on 23.83 bc

SAC-4 Clutch Package
Component Parts

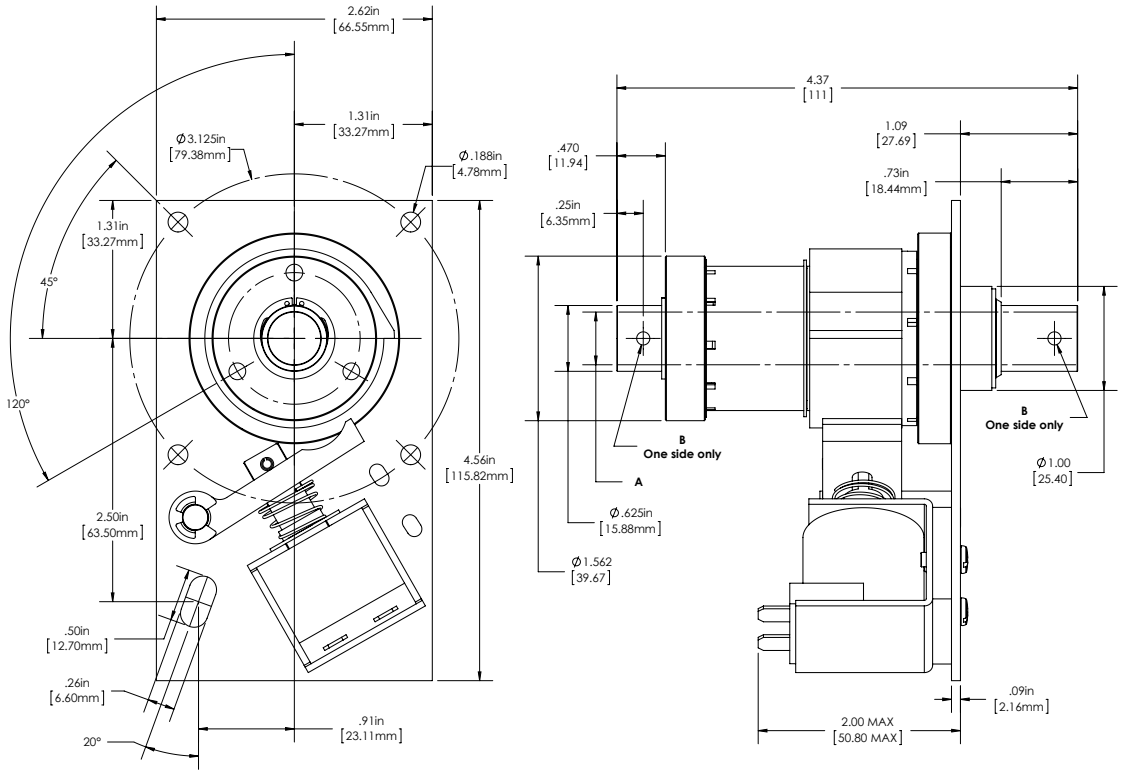


SAC-4 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03040-65000
2	Input Hub		03040-21000
	Input Hub Metric		13040-21000
3	Control Collar Assy 1-stop	CW	03041-06061
	(specify stops last digit)	CCW	03042-06061
4	Drive Spring	CW	03041-31000
		CCW	03042-31000
8	Mounting Plate Assy	CW	03041-03000
		CCW	03042-03000
9	Output Shaft Assy		
	3/8" bore		03040-04203
	10.0 H9 bore		13040-04240

SAC-4 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
12	Anti-back Hub		03040-28000
	Anti-back Hub Metric		13040-28000
13	Plate Hub		03040-22000
15	Sleeve Shim set (2)		03040-66000
17	Grooveless retaining ring		03040-63000
18	SAC sleeve		03040-39000
Options:			
6	Anti-back Spring	CW	03041-33000
		CCW	03042-33000
7	Anti-overrun Spring	CW	03041-34000
		CCW	03042-34000

SAC-5 Clutch Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Inertia, rotating parts	0.195 lb-in²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	27 ms
Weight	3 lbs.

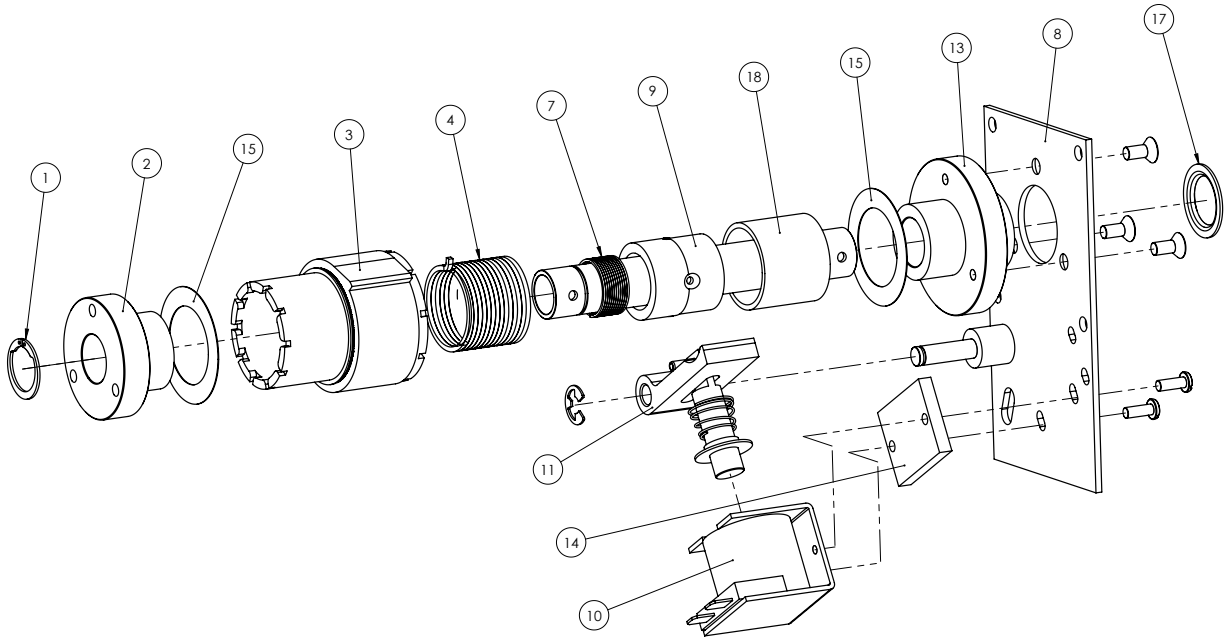
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)		3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)		3x M5 x 0.8 on 31.75 bc

SAC-5 Clutch Package
Component Parts

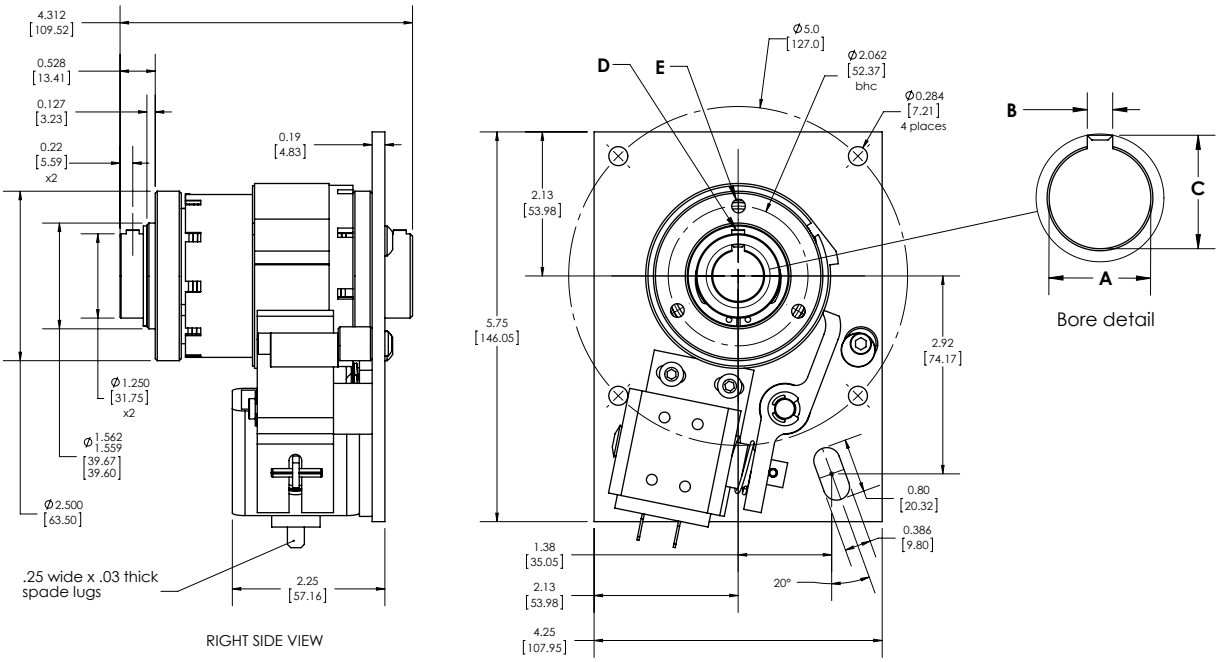


SAC-5 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub		03050-21000
	Input Hub Metric		13050-21000
3	Control Collar Assy 1-stop	CW	03051-06061
	(specify stops last digit)	CCW	03052-06061
4	Drive Spring	CW	03051-31000
		CCW	03052-31000
8	Mounting Plate Assy	CW	03051-03000
		CCW	03052-03000
9	Output Shaft Assy		
	1/2" bore		03050-04205
	12.0 H9 bore		13050-04242

SAC-5 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator Lever w/ plunger		03050-12000
12	Anti-back Hub		03050-28000
	Anti-back Hub Metric		13050-28000
13	Plate Hub		03050-22000
14	Coil mount plate		03050-97000
15	Sleeve shim set (2)		03050-66000
17	Grooveless retaining ring		03050-63000
18	SAC Sleeve		03050-39000
Options:			
6	Anti-back spring	CW	03051-33000
		CCW	03052-33000
7	Anti-overrun spring	CW	03051-34000
		CCW	03052-34000

SAC-6 Clutch Package

Dimensions and Specifications



Dimensions are in Inches [millimeters]
Left handed clutch shown (rotates clockwise viewed from top)

PERFORMANCE	
Static Torque	500 lb-in (56.5Nm)
Inertia, rotating parts	1.718 lb-in²
Maxium radial bearing load at max speed	63 lbs.
Maxium operating speed	500 RPM
Response time, voltage on at full speed	45 ms
Weight	7 lbs.

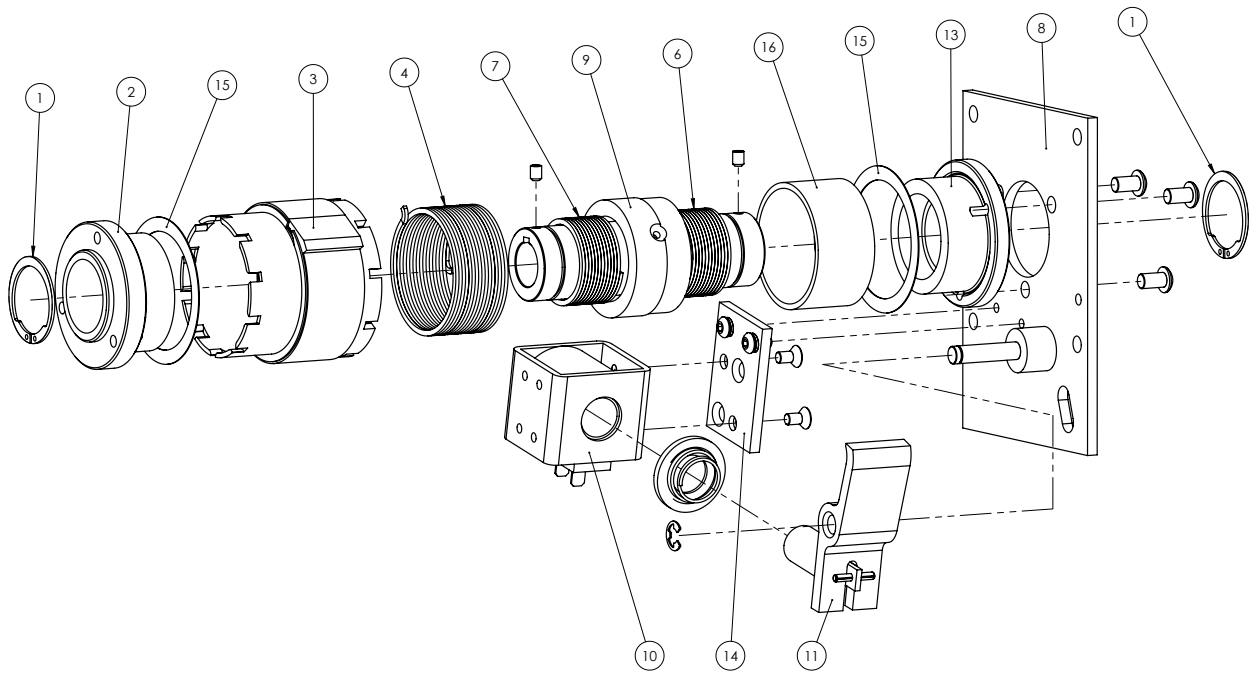
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set and Pin D	Mounting Holes E
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	2 x #10-32 UNC-2B x .19 hex set screw	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			2x 0.187-0.192 hole (4.74-4.88)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	2x M5 x 0.8 x 5.0 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			2x 4.87-5.14 hole (0.191-0.203)	3 x M6 x 1.0 on 52.38 bc

SAC-6 Clutch Package
Component Parts



SAC-6 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03060-65000
2	Input Hub		03060-21000
	Input Hub Metric		13060-21000
3	Control Collar Assy 1-stop	CW	03061-06061
	(specify stops last digit)	CCW	03062-06061
4	Drive Spring	CW	03061-31000
		CCW	03062-31000
8	Mounting Plate Assy	CW	03061-03000
		CCW	03062-03000
9	Ouput Shaft Assy		
	3/4" bore		03060-04209
	1" bore		03060-04213
	20.0 H9 bore		13060-04245
	25.0 H9 bore		13060-04247

SAC-6 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-08000
12	Anti-back Hub		03060-28000
	Anti-back Hub Metric		13060-28000
13	Plate Hub		03060-22000
14	Coil mount plate		03060-97000
15	Sleeve shim set (2)		03060-66000
16	SAC sleeve		03060-39000
Options:			
6	Anti-back Spring	CW	03061-33000
		CCW	03062-33000
7	Anti-overrun Spring	CW	03061-34000
		CCW	03062-34000

SP Series

Wrap Spring Clutch/Brake Package

The SP Series features three models of pre-assembled, solenoid actuated, wrap spring clutch packages. SP units are specifically for computer peripheral and business machine applications where rapid cycling is required. A single AC or DC pulse will accurately start loads at speeds up to 1200 RPM, depending on size. Adjustable stop collars provide easy and accurate output stop positioning.

- Brings loads up to speed in 3 milliseconds
- AC or DC operated
- Permanently lubricated
- Available in hub input or shaft input
- High cycle rate capability
- High torque to size ratio
- RoHS compliant

Features:

- Available in 3 sizes, (4, 5, and 6)
- Cost-effective design
- Adjustable control collars for easy and accurate output stop position

Typical Applications:

- Computer peripherals
- Business machines
- Paper drives
- Card readers and sorters
- Ribbon drives
- Copying machines

How to order:

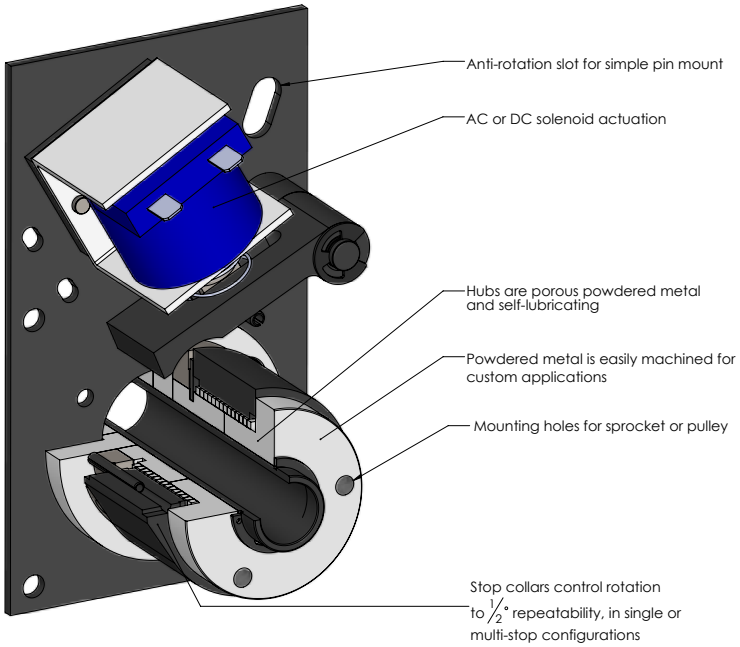
SP - **6-** **CW-** **24V-** **3 /4" Bore-** **2**

	Size		Coil Voltage	Bore Size		Stop Collar
SP Series	SP-4 = 4		**12V** = 12VDC	SP-4 =	3/8", or 10mm	1 = 1 Stop
Specify:	SP-5 = 5		**24V = 24VDC**	SP-5 =	1/2" or 12mm	2 = 2 Stop
Imperial or Metric	SP-6 = **6**		**90V** = 90VDC	SP-6 =	3/4", 1", 20mm, or 25mm	4 = 4 Stop
			115V = 115VAC			

Direction of Rotation
CW = Clockwise
CCW = Counterclockwise

SP Series

Solenoid Operated Clutch/Brake Package



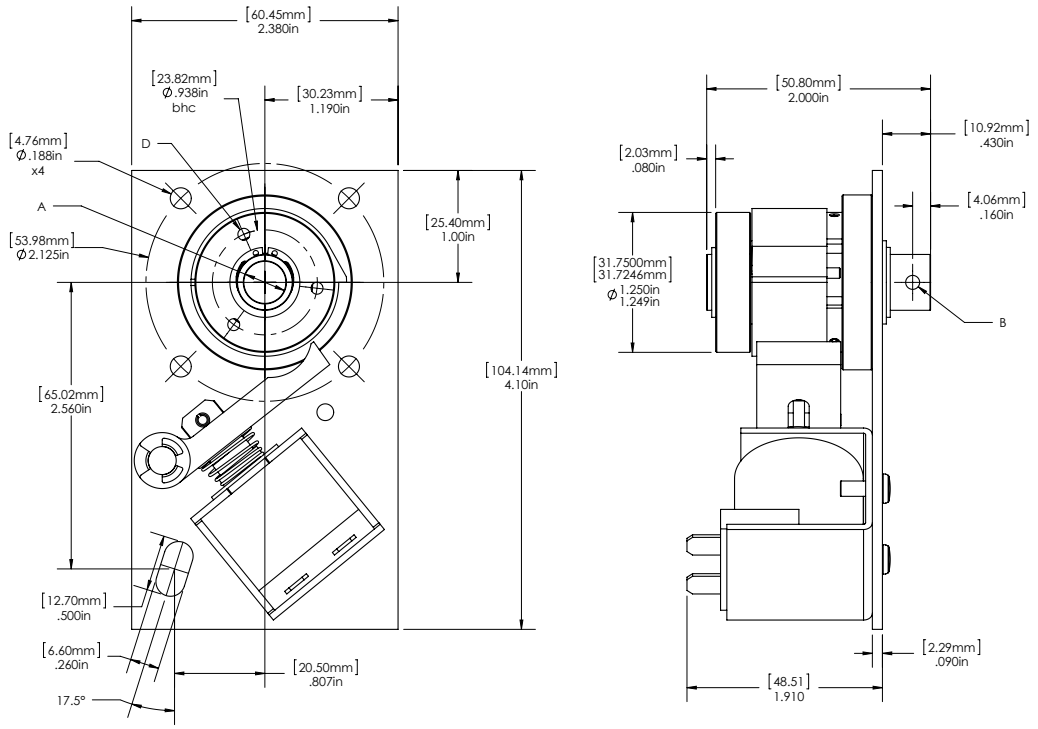
SP PERFORMANCE				
		SP-4	SP-5	SP-6
Static Torque		120 lb-in (13.56Nm)	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)
Maxium anti-overrun holding capability		25 lb-in (2.825Nm)	60 lb-in (6.78Nm)	300 lb-in (33.9Nm)
Inertia, rotating parts		0.0522 lb-in²	0.0977 lb-in²	2.0 lb-in²
Maxium radial bearing load at maxium speed		14 lbs.	32 lbs.	63 lbs.
Maxium operating speed		1,200 RPM	750 RPM	500 RPM
Response time, voltage on at full speed		30 ms	30 ms	60 ms
Weight		0.88lbs.	1.32 lbs.	5.29 lbs.

Note: By adding an optional over travel stop (OTS), braking torque is increased from 10% to 20% of rated clutch torque

RPM vs. SHAFT BORE			
Size	Max RPM	Shaft Bores, English	Shaft Bores, Metric
SP-4	1,200	3/8" (9.525mm)	10mm (.394")
SP-5	750	1/2" (12.7mm)	12mm (0.427")
SP-6	500	3/4" (19.05mm) 1" (25.4mm)	20mm (.787") 25mm (.984")

SP-4 Clutch Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	120 lb-in (13.56Nm)
Maxium anti-overrun holding capability	25 lb-in (2.825Nm)
Maxium anti-back holding torque	10 lb-in (1.13 Nm)
Inertia, rotating parts	.0522 lb-in²
Maxium radial bearing load at max speed	13 lbs.
Maxium operating speed	1,200 RPM
Response time, voltage on at full speed	30 ms
Weight	0.88 lbs.

Note: By adding optional over travel stop (OTS), braking torque is increased from 10% to 20% of rated clutch torque.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

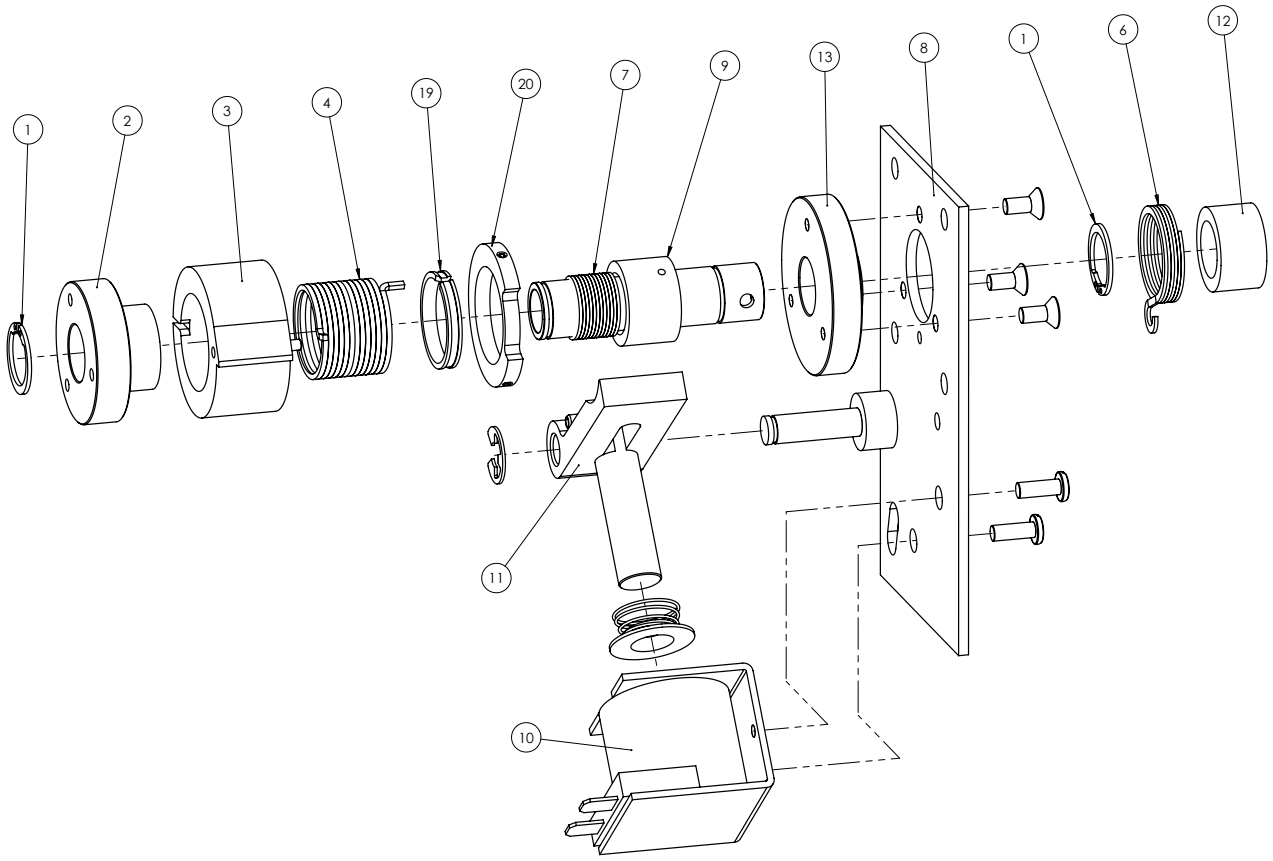
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Holes D
0.376-0.378 (9.55-9.61)	0.124-0.129 (3.14-3.28)		3 x #6-32 UNC-2B on 0.938 b.c.
Metric Bores			
10.0 H9 (0.3937-0.3951)	2.97-3.08 (0.117-0.121)		3x M4 x 0.7 on 23.83 bc

SP-4 Clutch Package

Component Parts

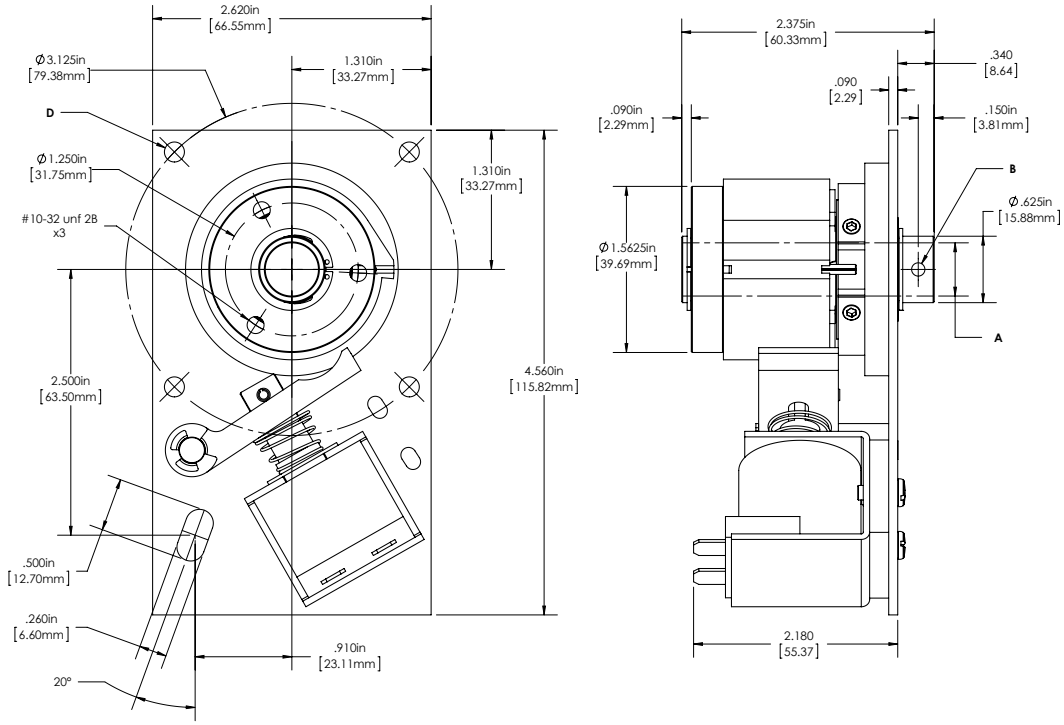


SP-4 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03040-65000
2	Input Hub		51040-21000
	Input Hub metric		55040-21000
	Output Hub		53040-21000
	Output Hub metric		57040-21000
3	Control Collar Assy 1-stop	CW	15041-06061
	(specify stops last digit)	CCW	15042-06061
4	Drive Spring SR design	CW	51041-31026
		CCW	51042-31026
	Drive Spring SS design	CW	51041-31025
		CCW	51042-31025
8	Mounting Plate Assy	CW	15041-03000
		CCW	15042-03000
9	Shaft Assembly		
	3/8" bore output shaft		51040-04203
	10mm H9 output shaft		55040-04240
	3/8" bore input shaft		53040-04203
	10mm H9 input shaft		57040-04240

SP-4 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator lever w/ plunger		15050-12000
13	Plate Hub		15040-16000
14	Coil mount plate		03040-97000
19	Split Ring		15040-21062
20	Adjusting Collar		00040-20000
	Adjusting Collar metric		10040-20000
Options:			
7	Anti-overrun Spring	CW	03041-34000
		CCW	03042-34000
6	Anti-back Spring	CW	15041-34000
		CCW	15042-34000
12	Anti-back Hub		15040-28000
	Anti-back Hub metric		17040-28000

SP-5 Clutch Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	250 lb-in (28.25Nm)
Maxium anti-overrun holding capability	60 lb-in (6.78Nm)
Maxium anti-back holding torque	20 lb-in (2.26Nm)
Inertia, rotating parts	0.097 lb-in²
Maxium radial bearing load at max speed	32 lbs.
Maxium operating speed	750 RPM
Response time, voltage on at full speed	30 ms
Weight	1.32 lbs.

Note: By adding optional over travel stop (OTS), braking torque is increased from 10% to 20% of rated clutch torque.

Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.103*	280.0
24 DC	0.325	74.0
12 DC	0.732	16.4
90 DC	0.096	936.0

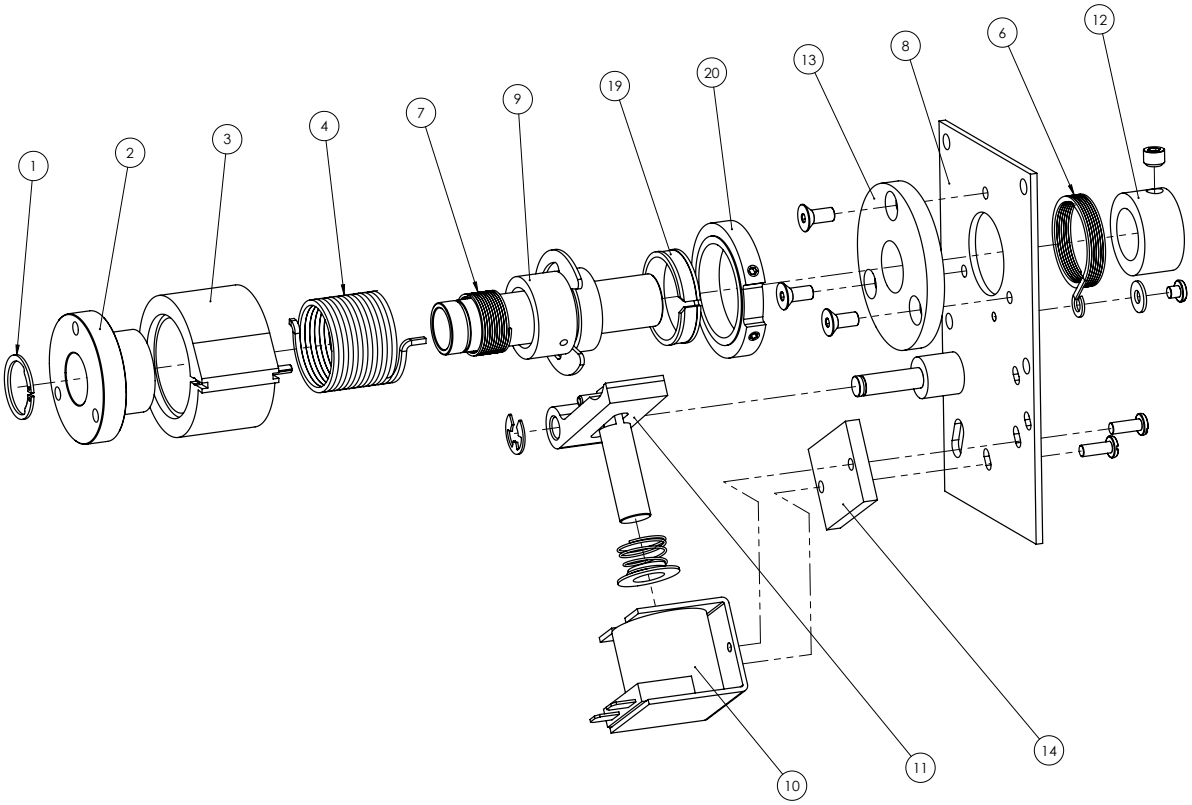
(Coils are rated for continuous duty)

*115AC - In rush current .232 amps/Holding current .098 amps

Bore & Keyway Data			
Bore A	Pin Hole B		Mounting Hole D
0.5005-0.5025 (12.712-12.764)	0.124-0.129 (3.14-3.28)		3 x #10-32 UNF-2B on 1.25 b.c.
Metric Bores			
12.0 H9 (0.4724-0.4741)	2.97-3.08 (0.117-0.121)		3x M5 x 0.8 on 31.75 bc

SP-5 Clutch Package

Component Parts

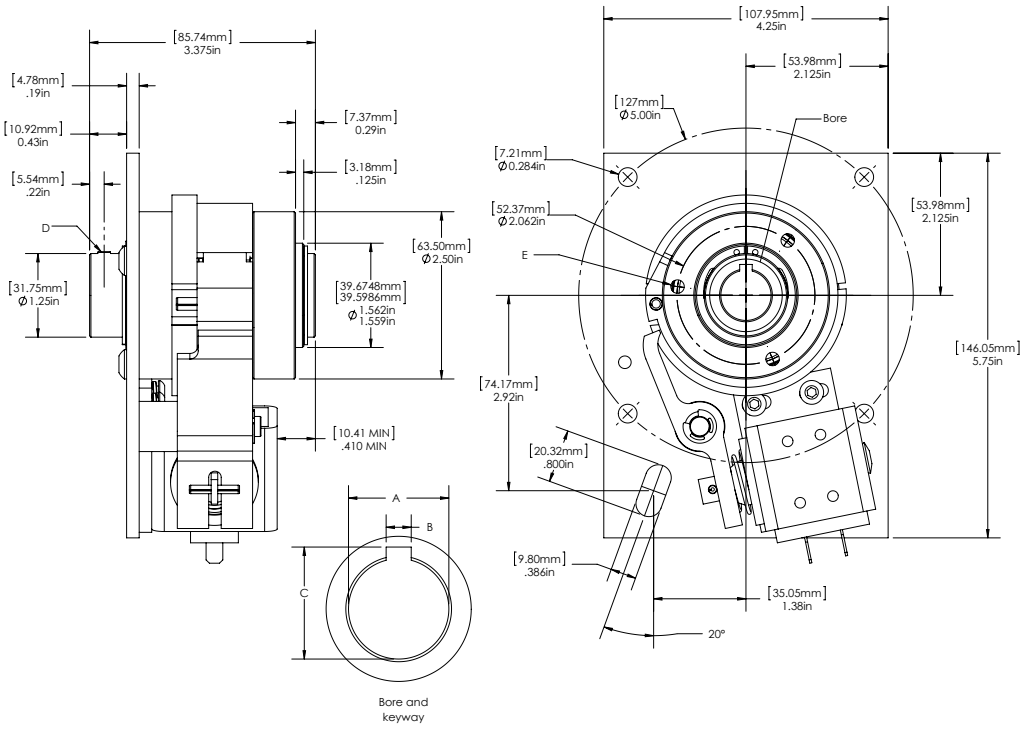


SP-5 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03050-65000
2	Input Hub no AO		51050-21000
	Input Hub metric		55050-21000
	Outut Hub		53050-21000
	Output Hub metric		57050-21000
3	Control Collar Assy 1-stop	CW	15051-06061
	(specify stops last digit)	CCW	15052-06061
4	Drive Spring SR Design	CW	51051-31026
		CCW	51052-31026
	Drive Spring SS Design	CW	51051-31025
		CCW	51052-31025
8	Mounting Plate Assy	CW	15051-03000
		CCW	15052-03000
9	Shaft Assembly		
	1/2" bore output shaft		51050-04205
	12mm output shaft		55050-04242
	1/2" bore input shaft		53050-04205
	12mm input shaft		57050-04242

SP-5 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03050-94121
	24V DC cont		03050-94122
	12V DC cont		03050-94123
	24V DC pulse		03050-94126
11	Actuator lever w/ plunger		15050-12000
13	Plate Hub		15050-16000
14	Coil mount plate		03050-97000
19	Split Ring		15050-21062
20	Adjusting Collar		00050-20000
	Adjusting Collar metric		10050-20000
Options:			
7	Anti-overrun Spring	CW	03051-34000
		CCW	03052-34000
6	Anti-back Spring	CW	15051-34000
		CCW	15052-34000
12	Anti-back Hub		15050-28000
	Anti-back Hub metric		17050-28000

SP-6 Clutch Package

Dimensions and Specifications



PERFORMANCE	
Static Torque	500 lb-in (56.5Nm)
Maxium anti-overrun holding capability	300 lb-in (33.9Nm)
Inertia, rotating parts	2.0 lb-in²
Maxium radial bearing load at max speed	63 lbs.
Maxium operating speed	500 RPM
Response time, voltage on at full speed	60 ms
Weight	5.29 lbs.

Note: By adding optional over travel stop (OTS), braking torque is increased from 10% to 20% of rated clutch torque.

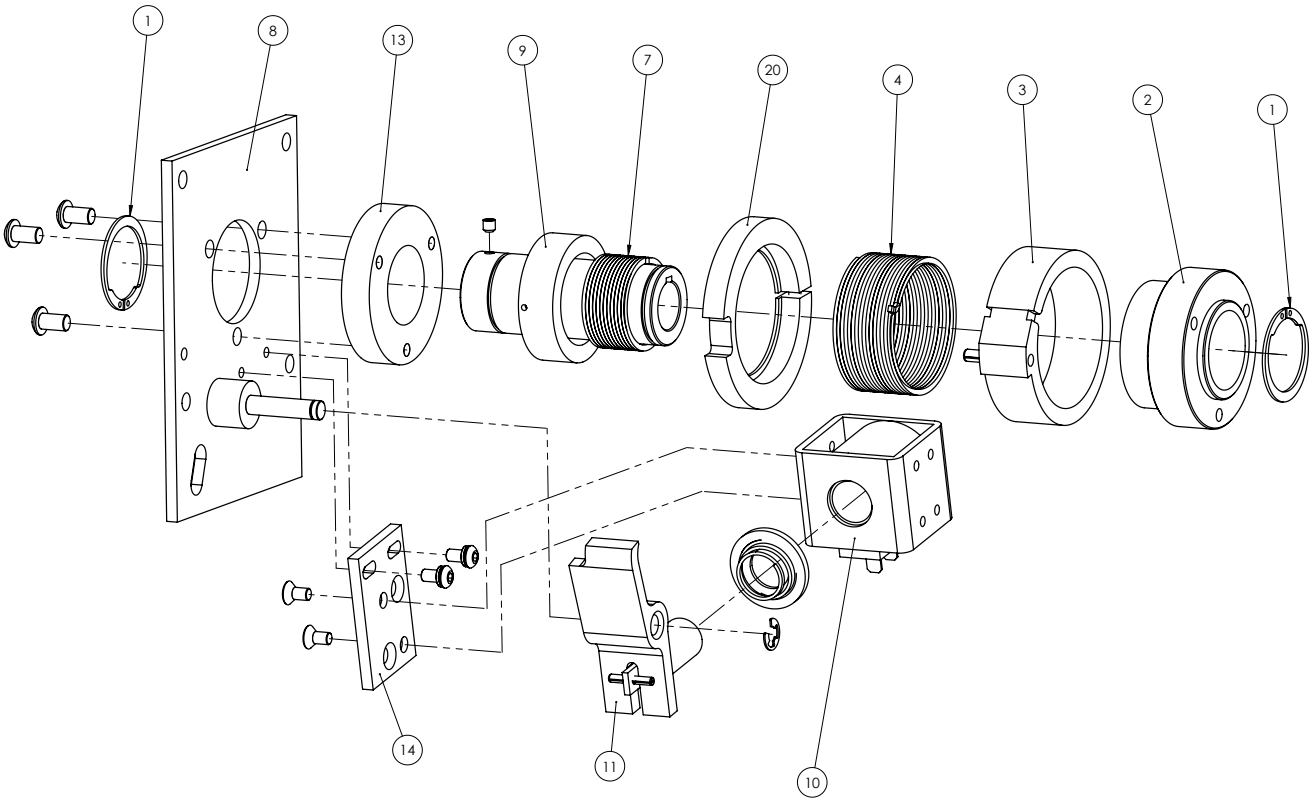
Electrical Data		
Voltage	Current (Amps)	Resistance (Ohms)
115 AC 60Hz	0.334*	57.5
24 DC	0.586	41.0
12 DC	1.15	10.4
90 DC	0.151	598.0

(Coils are rated for continuous duty)

*115AC - In rush current 1.1 amps/Holding current 0.2 amps

Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set and Pin D	Mounting Holes E
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	1 x #10-32 UNC-2B x .19 hex set screw	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			1x 0.187-0.192 hole (4.74-4.88)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	1x M5 x 0.8 x 5.0 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			1x 4.87-5.14 hole (0.191-0.203)	3 x M6 x 1.0 on 52.38 bc

SP-6 Clutch Package
Component Parts



SP-6 Component Parts			
Item	Description	Rotation	Part Number
1	Retaining Ring		03060-65000
2	Input Hub		51060-21000
	Input Hub metric		55060-21000
	Output Hub		53060-21000
	Output Hub metric		57060-21000
3	Control Collar Assy 1-stop	CW	15061-06061
	(specify stops last digit)	CCW	15062-06061
4	Drive Spring SR design	CW	51061-31026
		CCW	51062-31026
	Drive Spring SS design	CW	51061-31025
		CCW	51062-31025
8	Mounting Plate Assy	CW	15061-03000
		CCW	15062-03000
9	Shaft Assembly		
	3/4" bore output shaft		51060-04209
	20 H9 output shaft		55060-04245
	3/4" bore input shaft		53060-04209
	20 H9 input shaft		57060-04245

SP-6 Component Parts			
Item	Description	Rotation	Part Number
10	Coil only		
	115V AC cont		03060-94101
	24V DC cont		03060-94102
	12V DC cont		03060-94103
	24V DC pulse		03060-94104
11	Actuator lever w/ plunger		03060-12000
13	Plate Hub		15060-16000
14	Coil mount plate		03060-97000
20	Adjusting Collar		00060-20000
	Adjusting Collar metric		10060-20000
Options:			
7	Anti-overrun Spring	CW	03061-34000
		CCW	03062-34000
9	1" bore output shaft		51060-04213
	25 H9 output shaft		55060-04247
	1" bore input shaft		53060-04213
	25 H9 input shaft		57060-04247

PSI Series

Wrap Spring Clutches

Ideal for Overrunning, Start-Stop, and Single Revolution Applications

The Crossover Drives PSI Series clutches are the basic form of wrap spring clutch design. For start-stop and single revolution applications, the clutch function is actuated by simply engaging or releasing the stop collar. As a simple overrunning clutch, the PSI design provides positive engagement of a load to a power source, but permits free overrunning when input power is slowed, stopped, or reversed.

All units can be supplied as hub input/shaft output or the reverse. The Crossover PSI series is a very cost effective, reliable, and easily applied clutch where direct mechanical control is desired.

PSI Series Features:

- Trouble-free design for long life
- Simple mechanical actuation
- Four models ranging from 120 in-lb. to 2,500 in-lb. torque capacity
- Single revolution, start-stop, or overrunning functions
- Single revolution models can stop 10% of rated drive torque capacity
- Fits shaft sizes ranging from 3/8" to 1 ½"
- RoHS compliant

Typical Applications:

- Business machines
- Copying machines
- Material handling conveyors
- Packaging equipment
- Ribbon drives

How to order:

PSI - **5-** **S** **CW-** **SI-** **3/4" Bore-** **2-stop**

PSI Series
Specify
Imperial or Metric

Size
PSI-4 = **4**
PSI-5 = **5**
PSI-6 = **6**
PSI-8 = **8**

Model
Specify
S= Single Revolution
SS= Start/stop
O= overrunning

Direction of Rotation
CW = Clockwise
CCW = Counterclockwise

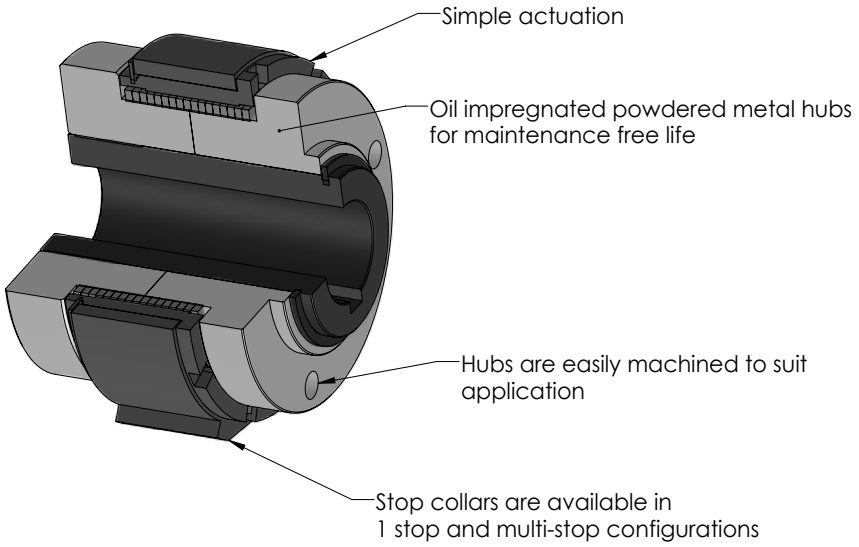
Input
Hi = Hub input
SI = Shaft Input

Bore Size
CB-4 = **3/8", or 10mm**
CB-5 = **1/2" or 12mm**
CB-6 = **3/4", 1", 20mm, or 25mm**
CB-8 = **1",1 1/4", 1 3/8", 1 1/2" 25mm, or 40mm**

Stop Collar
1 = 1 Stop
2 = 2 Stop
4 = 4 Stop

PSI Series

Wrap Spring Clutches - Specifications

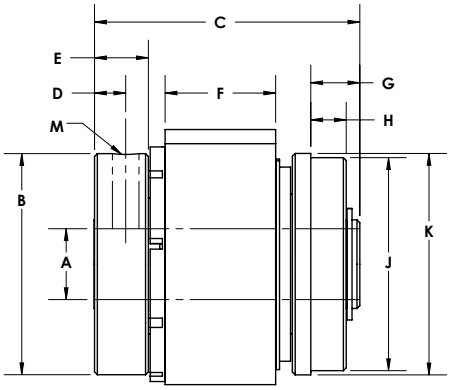


PSI Series PERFORMANCE						
			PSI-4	PSI-5	PSI-6	PSI-8
Static Torque			120 lb-in (13.56Nm)	250 lb-in (28.25Nm)	500 lb-in (56.5Nm)	2,500 lb-in (565Nm)
Inertia, rotating parts	SI HI		0.015 lb-in² 0.023 lb-in²	0.059 lb-in² 0.069 lb-in²	0.570 lb-in² 0.73 lb-in² (0.75 bore) 0.68 lb-in² (1.00 bore)	4.990 lb-in² 11.9 lb-in² (1.25 bore) 11.6 lb-in² (1.50 bore)
Maxium radial bearing load at maxium speed			13.5 lbs.	32 lbs.	63 lbs.	300 lbs.
Maxium operating speed			1,200 RPM	750 RPM	500 RPM	300 RPM
Weight			0.22 lbs.	0.62 lbs.	2.6 lbs.	8.25 lbs.

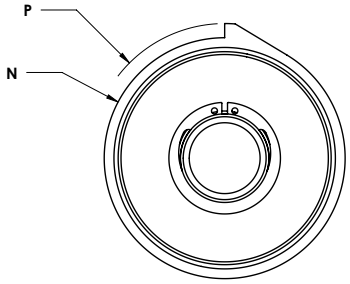
RPM vs. SHAFT BORE					
Size	Max RPM	Shaft Bores		Shaft Bores, Metric	
		Bore	Set or Pin	Bore	Set or Pin
PSI-4	1,200	3/8" (9.525mm)	0.125" (3.17mm)	10mm (.394")	M4 x 0.7 (2@120°)
PSI-5	750	1/2" (12.7mm)	0.187" (4.77mm)	12mm (0.427")	5mm (0.197")
PSI-6	500	3/4" (19.05mm) 1" (25.4mm)	1/4-20 1/4" (6.35mm)	20mm (.787") 25mm (.984")	M5 x 0.8 5mm (1.97")
PSI-8	300	1" (25.4mm) 1 1/4" (31.75mm) 1 3/8" (34.9mm) 1 1/2" (38.1mm)	3/8-16, 2 @ 90°	25mm (0.985") 30mm (1.18") 35mm (1.38") 40mm (1.58")	M10 x 1.5, 2@120°

PSI Series - Size 4 and 5

Dimensions and Specifications



PSI-4 and PSI-5

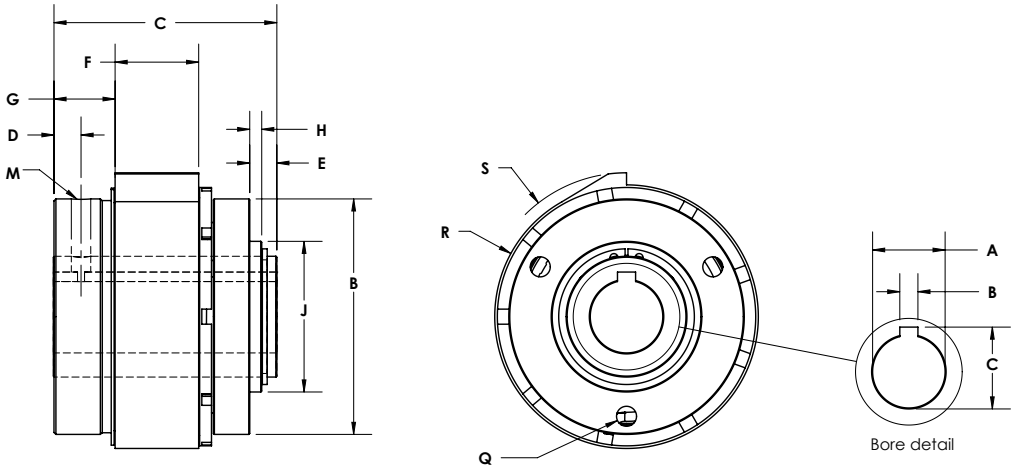


PSI Dimensions (mm)											
Model	B (dia.)	C	D	E	F	G	H	J (dia.)	K (dia.)	N (dia.)	P (rad.)
PSI-4	1.25 (31.75)	1.38 (35.05)	0.16 (4.05)	0.28 (7.10)	0.68 (17.27)	0.34 (8.64)	0.25 (6.35)	1.1265-1.1275 (28.613-28.639)	1.25 (31.75)	1.31 (33.27)	0.72 (18.29)
PSI-5	1.56 (39.60)	1.88 (47.75)	0.22 (5.56)	0.38 (9.70)	1.00 (25.4)	0.34 (8.64)	0.25 (6.35)	1.502-1.503 (38.15-38.18)	1.56 (39.60)	1.69 (42.93)	0.96 (24.38)

Bore & Pin Data				
Model	Bore, English	Pin or set	Bore, Metric	Pin or set
PSI-4	**0.376-0.378 (9.55-9.61)**	**0.125 dia (3.175 dia)**	**10.0 H9 (0.394-0.395)**	**M4 x 0.7 x 5.0 set 2 @ 120°**
PSI-5	**0.501-0.5025 (12.71-12.76)**	**0.188 dia (4.77 dia)**	**12.0 H9 (0.472-0.474)**	**5.0 dia (0.197 dia)**

PSI Series - Size 6 and 8

Dimensions and Specifications



PSI Dimensions (mm)										
Model	B (dia.)	C	D	E	F	G	H	J	R (dia.)	S (rad.)
PSI-6	2.437 (61.90)	2.312 (58.72)	0.28 (7.10)	0.27 (6.86)	0.87 (22.10)	0.63 (16.00)	0.12 (3.05)	1.559-1.562 (39.60-39.67)	2.71 (68.83)	1.50 (38.10)
PSI-8	4.00 (101.60)	3.60 (91.44)	0.62 (15.75)	0.35 (8.89)	2.20 (55.90)	0.95 (24.13)	0.188 (4.78)	2.372-2.374 (60.25-60.30)	3.75 (95.25)	2.00 (50.80)

PSI-6 Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set or Pin	Mounting Holes Q
0.7505-0.7525 (19.062-19.114)	0.1885-0.1905 (4.787-4.839)	0.837-0.842 (21.25-21.39)	1/4-20 tap	3x #1/4-20 UNC-2B on 2.062 b.c.
1.005-1.0025 (25.412-25.464)			0.25 dia (6.35mm)	3x #1/4-20 UNC-2B on 2.062 b.c.
Metric Bores				
20.0 H9 (0.7874-0.7894)	5.985-6.015 (0.2356-0.2368)	22.800-22.900 (0.8976-0.9015)	M5 x 0.8 hex set screw	3 x M6 x 1.0 on 52.38 bc
25.0 H9 (0.9843-0.9863)			5.0 hole	3 x M6 x 1.0 on 52.38 bc

PSI-8 Bore & Keyway Data				
Bore A	Keyway Width B	Keyway Depth C	Set or Pin	Mounting Holes Q
1.005-1.0025 (25.412-25.464)	0.251-0.253 (6.37-6.43)	1.114-1.124 (28.29-28.55)	3/8-16 tap 2 @ 90°	6x #5/16-18 UNC-2B on 3.375 b.c.
1.2505-1.2525 (31.762-31.814	0.3135-0.3155 (7.962-8.014)	1.389-1.399 (35.28-35.54)	3/8/2016 2 @ 90°	6x #5/16-18 UNC-2B on 3.375 b.c.
1.3755-1.3775 (34.937-34.989)	0.3135-0.3155 (7.962-8.014)	1.518-1.528 (38.55-38.82)	3/8/2016 2 @ 90°	6x #5/16-18 UNC-2B on 3.375 b.c.
1.5005-1.50025 (38.112-38.164)	0.376-0.378 (9.55-9.61)	1.605-1.615 (40.76-41.02)	3/8/2016 2 @ 90°	6x #5/16-18 UNC-2B on 3.375 b.c.
Metric Bores				
35.0 H9 (1.3780-1.3804)	9.982-10.018 (0.3930-0.3944)	38.300-38.563 (1.5079-1.5182)	M10 x 1.5 x 25.0 2 @ 120°	6x M8 x 1.25 on 85.73 b.c.
40.0 H9 1.5784-1.5772)			M10 x 1.5 x 25.0 2 @ 120°	6x M8 x 1.25 on 85.73 b.c.

PSI Series
Functions

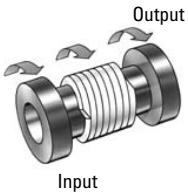
Overrunning, Start-Stop, and Single Revolution Applications

PSI Series clutches are designed in three primary ways: start-stop, single revolution, and simple overrunning. They are also designed to operate as either **shaft input – hub output** devices, or as **hub input – shaft output** devices.

When ordering replacement components, you will need to identify the function and the input/output so as to obtain the correct replacement spring or hub. The following representation will help identify function.

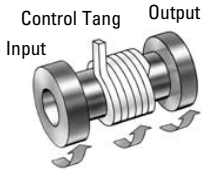
Operation Capabilities

Overrunning Model O



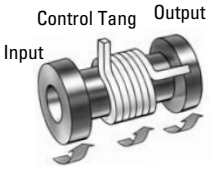
The overrunning clutch (Model O) transmits torque up to the rated value in the positive direction, when disengaged it only transmits some drag torque in the reverse direction. Major applications for this unit are anti-overrun protection and anti-backup devices.

Start-Stop (random positioning) Model SS



The start-stop clutch (Model SS) accelerates the load just after the control collar has been released, thus the collar is free to rotate allowing the spring to grip both hubs together. To disconnect the clutch, the collar must be restrained, stopping the collar from rotating via the stop face. The spring will then be opened and the clutch will be disengaged. The output is free to rotate and will be stopped by system friction and clutch drag torque.

Single Revolution Model S

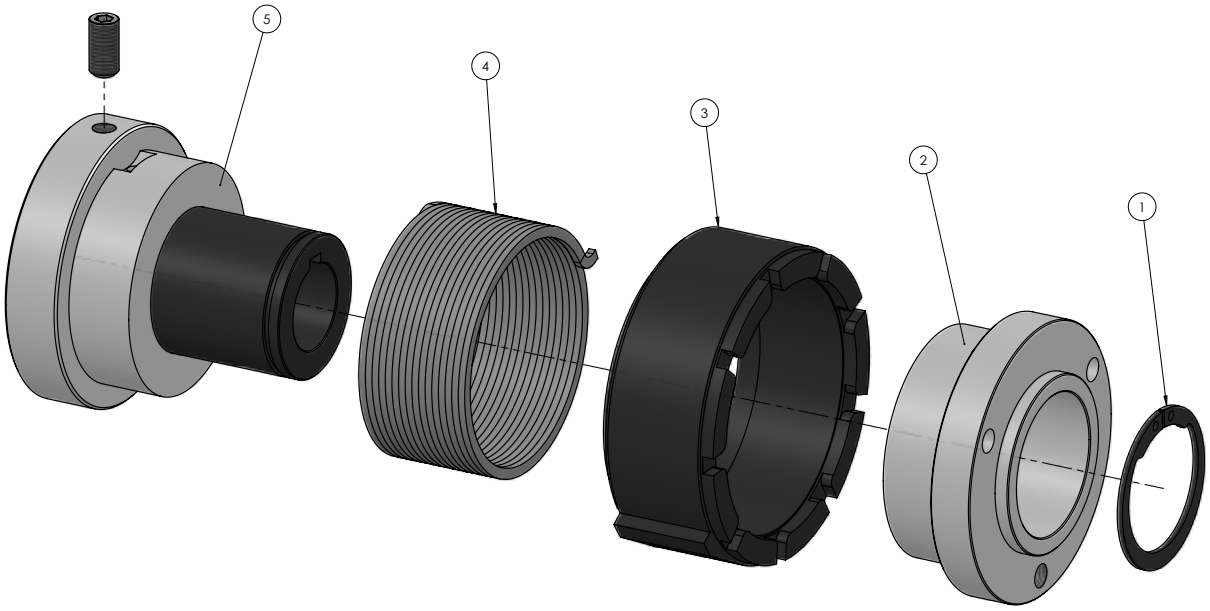


The single revolution clutch (Model S) accelerates in the same manner as the model SS. The deceleration starts when the collar is restrained, and the spring is opened, disengaging the clutch.

For Model S, the brake torque capability is limited to 10% of the rated torque.

All PSI Series clutches are easy to install. The shaft can be pinned or, on larger units, delivered with keyways.

PSI Series
Component Parts



PSI Component Parts								
Item	Description	Model	Rotation		Size 4	Size 5	Size 6	Size 8
1	Retaining Ring				03040-65000	03050-65000	03060-65000	03080-65000
2	Free hub	English			00040-19000	00050-19000	00060-19000	00080-19000
		Metric			10040-19000	10050-19000	10060-19000	10080-19000
3	Control Collar (specify stops last digit)		CW		00041-06061	00051-06061	00061-06061	00081-06061
			CCW		00042-06061	00052-06061	00062-06061	00082-06061
		O	n/a		00040-06000	00050-06000	00060-06000	00080-06000
4	Drive Spring	S	CW		03041-31000	03051-31000	03061-31000	03081-31000
			CCW		03042-31000	03052-31000	03062-31000	03082-31000
		SS	CW		03041-31025	03051-31025	03061-31025	03081-31025
			CCW		03042-31025	03052-31025	03062-31025	03082-31025
		O	CW		03041-31024	03051-31024	03061-31024	03081-31024
			CCW		03042-31024	03052-31024	03062-31024	03082-31024
5	Shaft Assembly	3/8"			00040-04203			
		10H9			10040-04240			
		1/2"				00050-04205		
		12H9				10050-04242		
		3/4"					00060-04209	
		20 H9					10060-04245	
		1"					00060-04213	00080-04213
		25 H9					10060-04247	10080-04247
		1 1/4"						00080-04217
		35 H9						10080-04249

Size 8 optional shaft assembly bores: 1 3/8", 1 1/2", 40mm

CE-Conveyor Series

Wrap Spring Clutches - for CDLR Pallet Applications

The CE Series of clutches are specifically designed for chain-driven, live roller (CDLR) pallet accumulation. Because of the rigorous demands of the pallet accumulation application, all of our CE conveyor clutches are constructed from solid hardened steel components rather than powder metal. Powdered metal components cannot withstand the high axial and radial loading that may occur when pallets jam in operation. The Super CES conveyor clutch is an upgrade to our standard CE conveyor clutch in that it incorporates durable needle bearings and thru hardened input shaft, rather than bronze bushing and case hardened input shaft.

Operation:

With the stop collar mechanically released and the input shaft rotating via chain-drive, the input shaft is coupled to the output sprocket for driving the rollers on a specific conveyor zone. If the stop collar is mechanically engaged by a pallet condition of the forward zone, the input shaft and output sprocket are de-coupled, while the input continues to overrun.

Super CES Features:

- Trouble-free design for long life
- Industrial grade needle bearing for super long life
- Thru-hardened 440c input shaft for long life
- 1,500 in-lb. torque rating, high torque to size ratio
- Case-hardened steel stop-collar for long life
- Complete with case hardened 40A21 sprocket for immediate installation
- Drop in replacement for a Standard CE clutch with 40A21 sprocket

Standard CE Features:

- Trouble-free design for long life
- Bronze bushing
- Case-hardened input shaft
- 1,500 in-lb. torque rating, high torque to size ratio
- Available in both bolted-on and welded-on sprockets of 40-60 chain size

Options:

- Model CE-8, 2500 lb-in version available
- Model E-7 Solenoid operated package available

How to order:

CE	7-	WO-	CW-	1 7/16" Bore-	4	optional sprocket (specift chain size and # teeth)
Model CE (Standard) CES (Super) CER	**Size** **7** = 7 **8** = 8	**Sprocket** BO = bolt on WO = weld on	**Direction of Rotation** **CW** = Clockwise **CCW** = Counterclockwise (viewed when looking at end opposite the sprocket)	**Bore Size** 1 7/16" 1", 1 7/16"	**Stops** 4 = 4 stop	**sprocket options** 40A plate bolt-on 40A plate weld-on 50A plate bolt-on 50A plate weld-on 60A plate bolt-on 60A plate weld-on

The Super CES is only available in 1,500 in-lb. torque package, and 1 7/16" bore, and is pre-assembled with a 40A21 sprocket

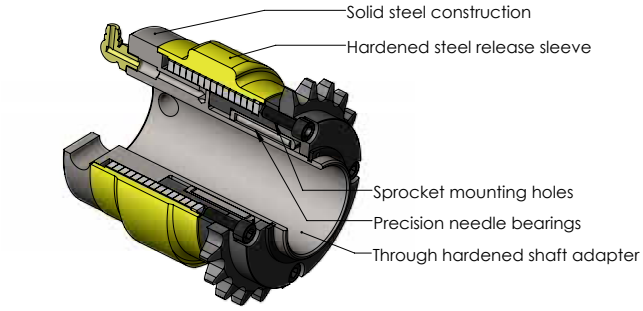
The CER is only available with integral DS60A16 sprocket

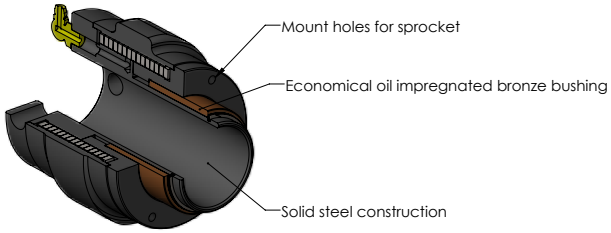
CE-Conveyor Series

Wrap Spring Clutches - for CDLR Pallet Applications

CES-7 Super Conveyor Clutch

CE-7 Standard Conveyor Clutch

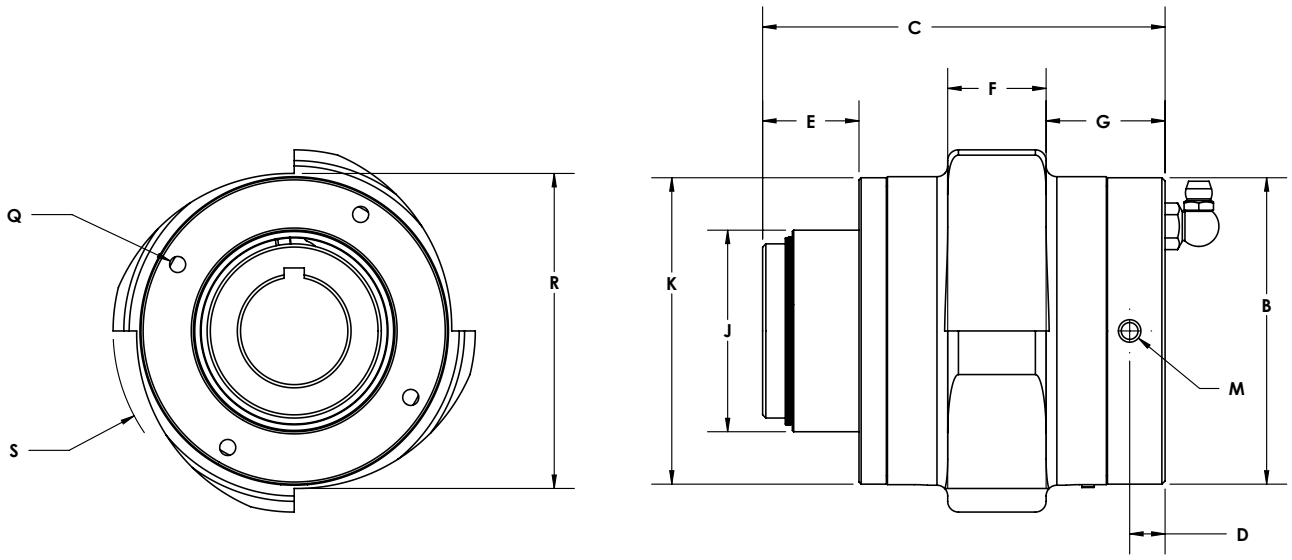




Conveyor Series PERFORMANCE					
		CE-7 (WO or BO)	CES-7 Super	CER-7	CE-8 (WO or BO)
Static Torque		1, 500 lb-in	1,500 lb-in	1,500 lb-in	2,500 lb-in
Inertia, rotating parts		2.0 lb-in^2	2.0 lb-in^2	5.5 lb-in^2	3.0 lb-in^2
Maxium radial bearing load at maxium speed		150 lbs.	150 lbs.	150 lbs.	300 lbs.
Maxium operating speed		400 RPM	400 RPM	400 RPM	300 RPM
Weight		4.0 lbs.	4.0 lbs.	8.1 lbs.	5.0 lbs.

CE-Conveyor Series

Dimensions and Specifications



Conveyor Series Dimensions											
Model	B (dia.)	C	D	E	F	G	H	J (dia.)	K (dia.)	R (dia.)	S (rad.)
CE-7 WO	2.85	3.75	0.325	0.88	1.00	1.10	0.625	2.00	2.50	2.95	1.69
CE-7 BO	2.85	3.75	0.325	0.88	1.00	1.10	0.625	2.00	2.50	2.95	1.69
CES-7	2.85	3.75	0.325	0.88	1.00	1.10	na	na	na	2.95	1.69
CER-7	2.85	5.04	0.275	0.88	1.00	1.10	na	na	na	2.95	1.69
CE-8 WO	3.05	3.75	0.325	0.88	1.40	0.53	0.625	2.00	2.50	3.25	1.88
CE-8 BO	3.05	3.75	0.325	0.88	1.40	0.53	0.625	2.00	2.50	3.25	1/1/1900

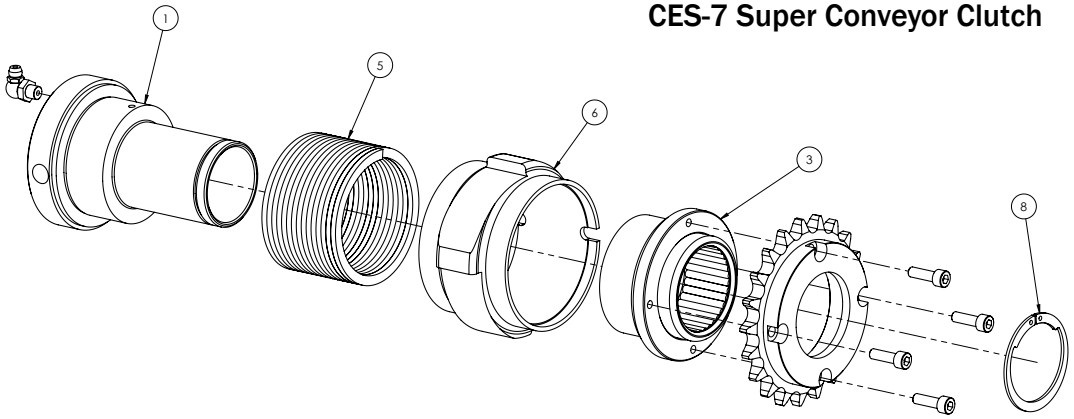
Conveyor Series Bore and Pin data					
		Bore	Key or Pin	Sprocket Bore J	Sprocket Mount Q
CE-7 BO		1" 1 7/16"	3/16" key, 10-24 set 3/8" pin	2.00 2.00	4 x 10-24 on a 2.50" b.c.
CE-7 WO		1" 1 7/16"	3/16" key, 10-24 set 3/8" pin	2.50 2.50	na
CES-7		1 7/16"		na[2]	na[2]
CER-7		1 3/16"	1/4" key, 10-24 set	na[3]	na[3]
CE-8 BO		1 7/16"	3/8" pin	2.00	8 x 1/4-20 on a 2.50" b.c.
CE-8 WO		1 7/16"	3/8" pin	2.50	na

[2]CES-7 includes integral 40A21 sprocket

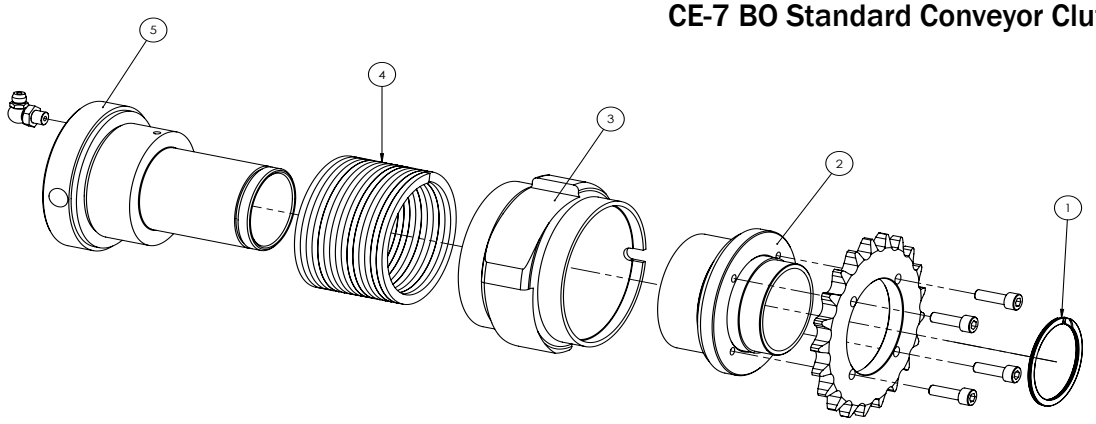
[3]CER-7 includes integral DS60A16 sprocket

CE-Conveyor Series
Component Parts

CES-7 Super Conveyor Clutch



CE-7 BO Standard Conveyor Clutch



Conveyor Series Component Parts									
Item	Description	Bore	otatio	CE-7 WO	CE-7 BO	CES-7	CER-7	CE-8 WO	CE-8 BO
1	Retaining Ring			02070-65000	02070-65000	02070-65000	02070-65000	02070-65000	02070-65000
2	Free Hub Assy			02070-07302	02070-07000	22070-07034	01070-01000	02080-07302	02080-07000
3	Control Collar (4-stop only)		CW	02070-26064	02070-26064	22070-26064	02070-26064	02081-26064	02081-26064
			CCW	02070-26064	02070-26064	22070-26064	02070-26064	02082-26064	02082-26064
4	Drive Spring		CW	41071-31000	41071-31000	41071-31000	41071-31000	41081-31000	41081-31000
			CCW	41072-31000	41072-31000	41072-31000	41072-31000	41082-31000	41082-31000
5	Shaft Adapter (1-piece design)	1"		02070-24213	02070-24213			02080-24213	02080-24213
		1 3/16					01070-24230		
		1 7/16		02070-24220	02070-24220	22070-24220		02080-24220	02080-24220
6	Set screw			43000-71701			43000-71701		

WO = Weld-on sprocket, BO = Bolt-on sprocket. Specify sprocket if required with Free Hub assembly

CE-7 WO design available in stainless wash-down package

Stop Collars

Specifications and Adjustments

Multi-Stop Options

Crossover splined stop collars are a standard feature on all Super CB, Standard CB, SAC, SP, PSI, and CB Short series clutches. Stop collars can be adjusted radially in fine increments as shown in the Adjustment Table. This feature allows users to reposition the output to comply with specified keyway placement.

Stop Collars			
Clutch Series	Collar Type	Stops	Status
Super CB	Reinforced plastic w/ steel insert Reinforced Plastic	1,2, or 4 up to 24 max	Standard Optional
Standard CB	Reinforced Plastic	1,2, or 4 up to 24 max	Standard Optional
SAC	Reinforced Plastic	1,2, or 4 up to 24 max	Standard Optional
SP	Nylon	1,2, or 4 up to 24 max	Standard Optional
PSI	Reinforced Plastic	1,2, or 4 up to 24 max	Standard Optional
Conveyor	Solid Steel	4	Standard
Super Conveyor	Hardened Steel	4	Standard

Stop Collar Adjustments		
Clutch Series	Size	Adjustment
Super CB	8	1.6°
Super CB	7	1.6°
Super CB	6	1.8°
Super CB	5	1.8°
Standard CB	8	1.6°
Standard CB	7	1.6°
Standard CB	6	1.8°
Standard CB	5	1.8°
Standard CB	4	2.4°
SAC	6	1.8°
SAC	5	1.8°
SAC	4	2.4°
SP	6	1.8°
SP	5	1.8°
SP	4	2.4°
PSI	8	1.6°
PSI	6	1.8°
PSI	5	1.8°
PSI	4	2.4°
Conveyor	8	na
Conveyor	7	na

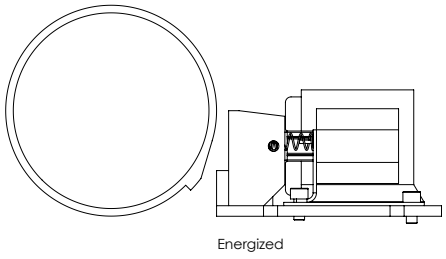
Heavy Duty Actuator

for use with PSI-6, PSI-8 and CE-Conveyor Clutches

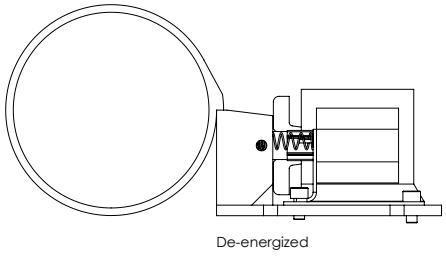
The Heavy Duty Actuator is offered as a simple laminated AC solenoid actuated mechanical device to operate in conjunction with PSI-6, PSI-8, and S-7 conveyor clutches. Mounted in the proper proximity to the clutch, it will control single, partial, or multiple revolutions. It is designed as a no power, no revolution device. Ruggedly constructed from steel and nylon for maximum strength and long life.

Operation

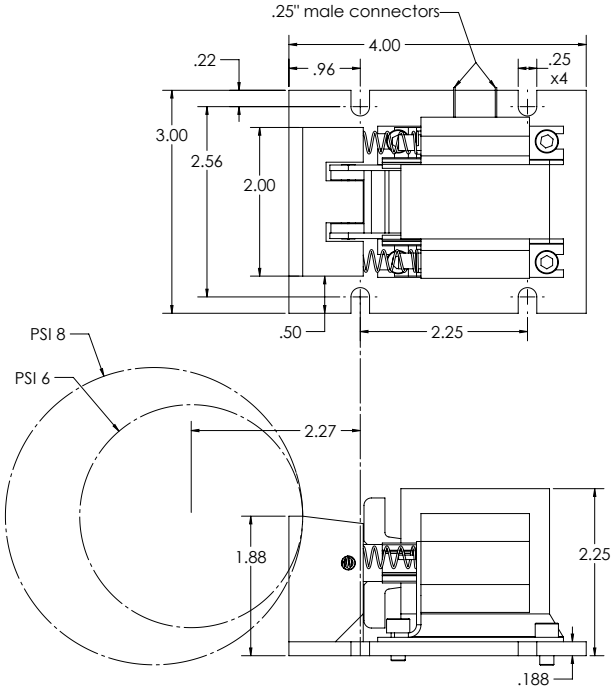
When voltage is applied to the coil, the stop block is pulled back from the clutch stop collar allowing the clutch to engage. It is not necessary to hold power to the coil for the entire cycle. A pulse to the coil will allow the clutch to start, the return spring pressure on the collar will not disengage the clutch and the stop block will be in position to disengage the clutch after one revolution. No “on-timing” is necessary.



Energized



De-energized



SPECIFICATIONS	
Input	120V AC 60Hz
DC Resistance	14.9 ohms
Load Current	6.5 amps
Holding Current	0.48 amps
Terminals	1/4" spade lug