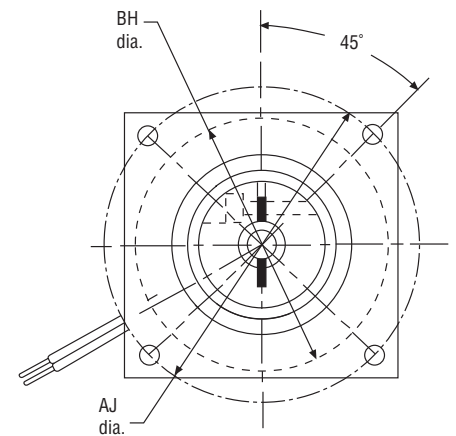
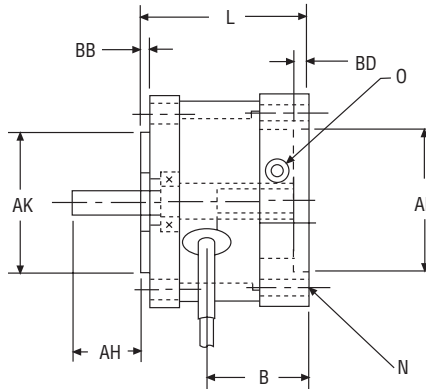
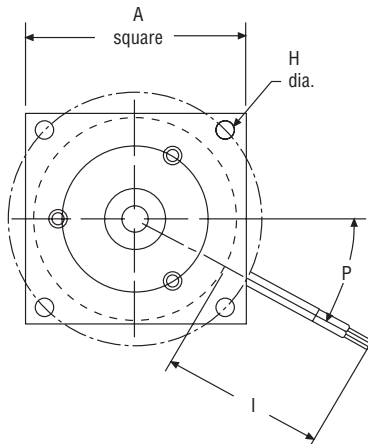
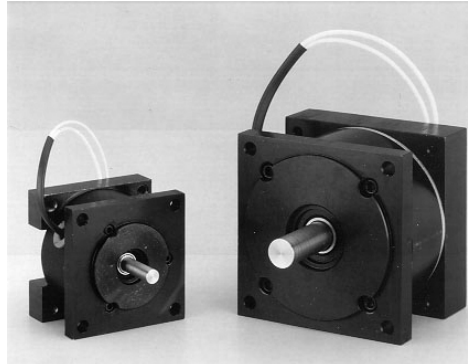


Double C-Face Power-Off Brakes – MPC

Double C-Face Power-Off Brakes for Nema 17, 23, 34 and 42 Frames

MPC – Brake Only Module (Power-Off) with Output Shaft C-Face

The MPC is a power-off brake module with an output shaft. The unit mounts on a C-Face motor, and the output can be coupled to a C-Face gear reducer. Ideal for creating brake/motor packages on smaller servo and stepper frame motors.



Dimensions

MODEL NO.	FRAME SIZE	SHAFT & HUB DIA.	A	AH ¹	AJ	AK	B	BB	BD	BH	H	N	I	L	O***	P
MPC17	17	3/16	1.65	.71	1.725	.866	.82	.080	.100	1.50	(4) #4-40-2B	(4) .125	11.50	1.57	#4-40	60
MPC23	23	1/4*	2.25	.70	2.625	1.500	1.18	.10	.145	2.13	(4) .205	(4) #10-24-2B	16.75	1.876	#6-32	30
MPC34	34	1/2*	3.25	1.16	3.875	2.875	1.58	.10	.145	2.878	(4) .222	(4) #10-24-2B	18.00	2.578	1/4-28	15
MPC42	42	5/8**	4.25	1.23	4.950	2.189	2.27	.10	.125	3.50	(4) .320	(4) 3/8-18-2B	18.00	4.056	1/4-28	90

*23 and 34 frame also available in 3/8" bore.

**42 frame also available with 3/8" and 1/2" hub and shaft.

***Socket head cap screw for clamp collar.

¹ Alternate shaft lengths available – consult factory.

Mechanical

MODEL NO.	STATIC TORQUE LB.-IN. ¹	INERTIA LB.-IN. ²	WGT. OZ.
MPC17	1	.0024	7
MPC23	3	.0087	17
MPC34	15	.1120	46
MPC42	50	.2060	96

¹Also available in higher torque sizes – consult Inertia Dynamics for more information.

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC		120 VAC
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS	AMPS
MPC17	.051	1880	.220	117	.430	30	.044
MPC23	.041	2177	.182	132	.353	34	.048
MPC34	.098	922	.369	65.1	.719	16.7	.077
MPC42	.194	465	.717	35.5	.154	7.8	.140

See page 36 for ordering information

Ordering Information

MPC PART NUMBERING SYSTEM

A		A		B		B-C		D		D		E	
DIGIT	MODEL NO.	DIGIT	FRAME SIZE	DIGIT	VOLTS	DIGIT	INPUT DIAMETER	DIGIT	OUTPUT DIAMETER	DIGIT	FLANGE CONFIGURATION		
89	MPC BRAKE	17	NEMA 17	1	90 VDC	1	1/8"	1	1/8"	1	STANDARD		
		23	NEMA 23	2	24 VDC	2	3/16"	2	3/16"	2			
		34	NEMA 34	3	12 VDC	3	1/4"	3	1/4"	3			
		42	NEMA 42	4	120 VAC	4	5/16"	4	5/16"	4			
						5	3/8"	5	3/8"				
						6	1/2"	6	1/2"				
						7	5/8"	7	5/8"				
						8	3/4"	8	3/4"				

How To Order

- A. Select the model number from the product guide.
- B. Select the frame size.
- C. Select the voltage.
- D. Select the input and output diameter.
- E. Reserved for special torque – consult factory.

Example

Model MPC34, 34 frame size, 24 VDC
 1/2" diameter input and output shaft, standard enclosure
 Part No. 8934-2661

Underwriters Laboratories Standards

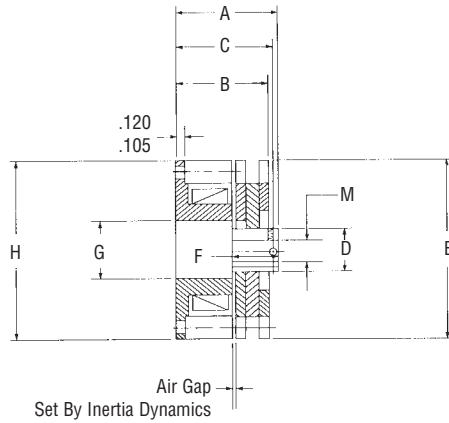


All Inertia Dynamics standard clutches, brakes, and spring applied brakes are recognized by Underwriters Laboratories to both U.S. and Canadian safety requirements. Products built to meet their construction requirements are labeled with the UL symbol as shown at above. The products indicated meet UL Class B requirements.

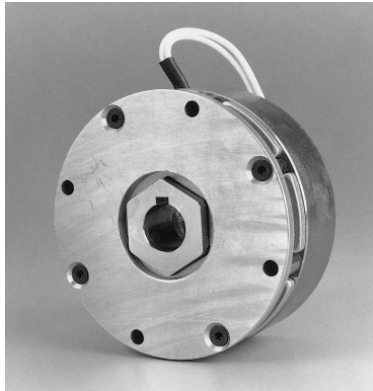
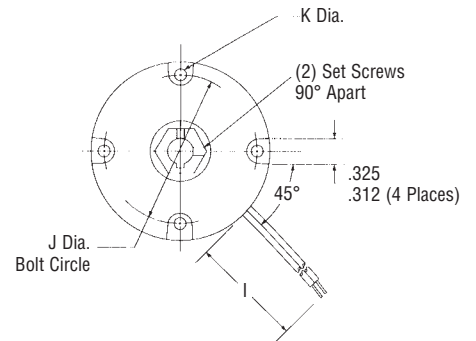
Spring Applied Brakes – Type SAB

Spring Applied Friction Brakes

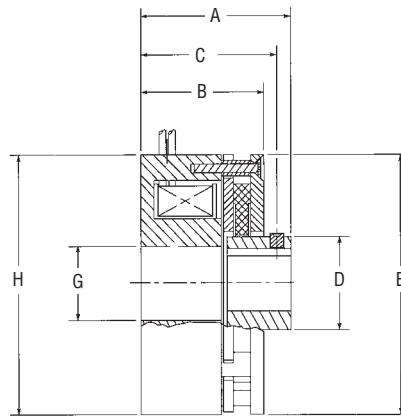
Inertia Dynamics features a type SAB spring applied brake. SAB brakes are designed to be engaged and disengaged in a static condition at zero RPM. They are best used as a parking brakes to hold loads in position. These brakes can be mounted to a flange or motor using thru-holes or tapped holes in the field cup. A conduit box is optional. SAB brakes have been used extensively for servo brake applications with minor modifications. High-temperature coil insulations are available upon request.



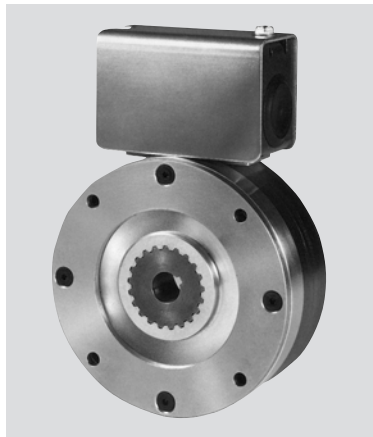
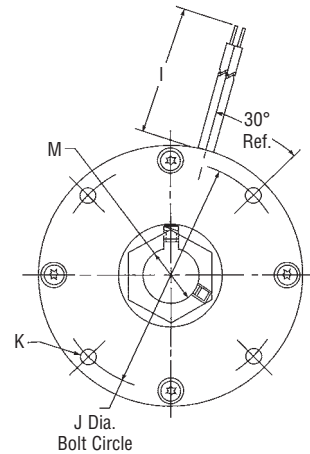
SAB20



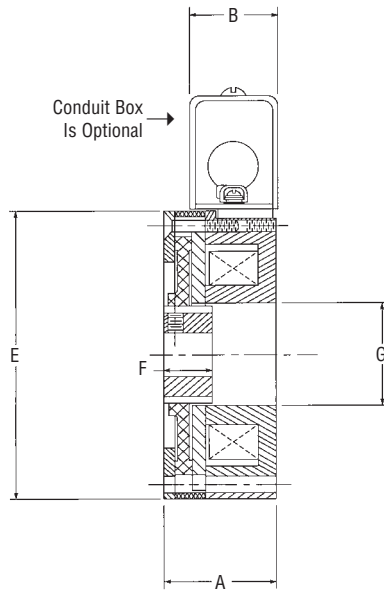
SAB90 shown



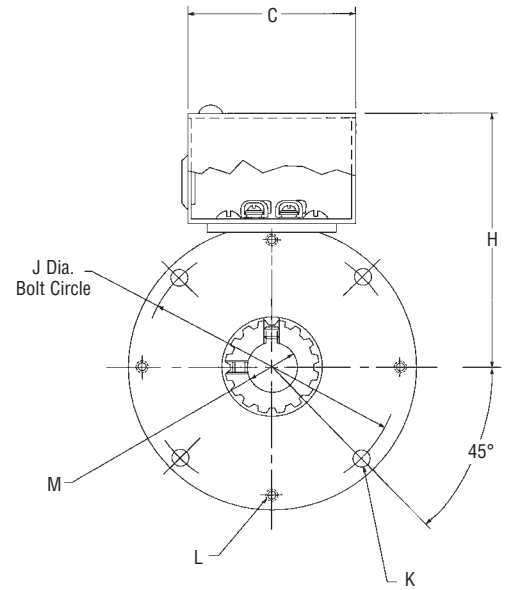
SAB90



SAB180 shown with optional conduit box



SAB180, 400, 1200



Mechanical

MODEL NO.	STATIC TORQUE LB.-IN.	INERTIA LB. – IN. ² ARMATURE & HUB ASSEMBLY	WGT. LB.
SAB20	20	.018	1
SAB90	90	.130	3
SAB180	180	.312	5
SAB400	400	.748	7.1
SAB1200	1200	1.732	12.4

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC		120 VAC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
SAB20	.098	922	.37	65	.72	16.7	.08	N.A.
SAB90	.17	534	.68	35.3	1.34	8.95	.13	N.A.
SAB180	.29	314	1.14	21.10	2.25	5.33	.25	N.A.
SAB400	.39	230	1.54	15.50	3.01	3.98	.33	N.A.
SAB1200	.58	156	2.27	10.60	4.51	2.66	.49	N.A.

Dimensions

MODEL NO.	HUB STYLE	A MAX.	B MAX.	C NOM.	D MAX.	E MAX.	F MIN.	G REF.	H MAX.	I ± .500	J NOM.	K DIA.	L	M BORES & KEYWAYS		
														BORE	NOMINAL KEYWAY	
															X**	Y**
SAB20	HEX	1.400	1.200	1.255	0.722	2.465	0.605	0.781	2.436	12.0	2.125	0.172	–	3/8 5/16 3/8	.094 – .097 .0625 – .0655 .094 – .097	.417 – .427 .347 – .352 .417 – .427
SAB90	HEX	1.938	1.658	1.753	1.298	3.530	0.740	1.375	3.530	18.0	3.125	0.190	#6 – 32 X .5	3/8 1/2 5/8 3/4	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716 .836 – .844
SAB180	SPLINE	1.770	1.500	2.930	–	4.260	0.800	1.500	4.129*	–	3.75	0.223	#8 – 32 X .5	3/8 1/2 5/8 3/4 7/8	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716 .836 – .844 .962 – .970
SAB400	SPLINE	1.940	1.500	2.930	–	5.010	0.800	1.770	4.514*	–	4.5	0.283	#10 – 24 X .5	1/2 5/8 3/4 7/8 1	.125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 .251 – .253	.560 – .567 .709 – .716 .836 – .844 .962 – .970 1.113 – 1.121
SAB1200	SPLINE	2.050	1.500	2.930	–	6.510	0.900	2.425	5.252*	–	5.875	0.409	1/4 – 20 X .5	1 1 1/8 1 1/4 1 3/8 1 1/2	.251 – .253 .251 – .253 .251 – .253 .3135 – .3155 .376 – .379	1.114 – 1.124 1.241 – .1.251 1.367 – .1.377 1.518 – .1.528 1.606 – 1.616

*Reference Dimension

**X denotes keyway width, Y denotes keyway height plus bore

NOTES:

1. SAB1200 – Special .375 x .250 key is supplied with unit. Mating shaft to have conventional ASA Standard Keyway.
2. Conduit box is optional on models SAB180, 400 & 1200. Screw terminals supplied in place of conduit box.
3. Consult factory for Zero Backlash Hub Style

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B		B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION		
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES		
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS		
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)		
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX		
			0	5	035			5	3/8	5	SPLINE				
			0	6	050			6	1/2						
			0	7	100			7	5/8						
			0	8	200			8	3/4						
0	1	SL	0	9	08			9	7/8						
0	3	BSL	1	0	11			0	1						
0	5	FL	1	1	15			11	1 1/8						
0	7	SO	1	2	17			12	1 1/4						
0	9	FO	1	3	19			13	1 3/8						
1	1	FB	1	4	22			14	1 1/2						
1	3	SLB	1	5	26										
1	5	SOB	1	6	30										
			1	7	42										
1	8	SAB	1	8	20										
			1	9	90										
			2	1	180										
			2	3	400										
			2	5	1200										

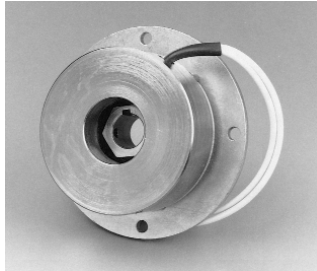
How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

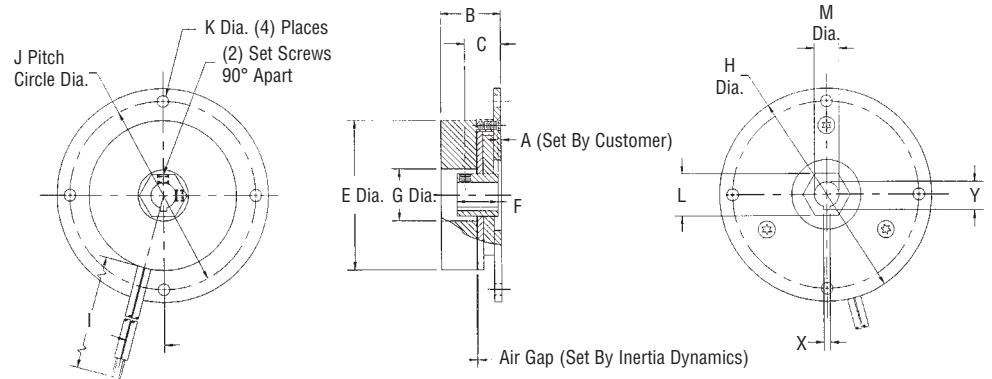
Example

SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Inertia Dynamics type FSBR brakes are designed for applications requiring minimum space (short axial length) or for motors with short shaft extensions. When mounted, the armature hub is installed on the shaft first, then the brake is installed over the hub and attached to the motor.



FSBR007 Shown



Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ² ARMATURE & HUB ASSEMBLY	WGT. OZ.
FSBR007	7	.0133	11
FSBR015	15	.0133	12
FSBR035	35	.084	24
FSBR050	50	.084	27
FSBR100	100	.205	56

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC		120 VAC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
FSBR007	.059	1520	.247	97.3	.477	25.1	.048	N.A.
FSBR015	.098	922	.369	65.1	.719	16.7	.077	N.A.
FSBR035	.093	964	.394	61.0	.755	15.9	.073	N.A.
FSBR050	.194	465	.717	33.5	1.43	8.4	.140	N.A.
FSBR100	.180	501	.707	34	1.41	8.5	.142	N.A.

Lead wire is UL recognized style 1015, 22 gage. Insulation is .095" O.D.

Dimensions

MODEL NO.	HUB STYLE	A MAX.	B MAX.	C NOM.	E MAX.	F MIN.	G REF.	H MAX.	I ± .500	J NOM.	K MIN.	L NOM.	M BORES & KEYWAYS		
													BORE	NOMINAL KEYWAY	
														X	Y
FSBR007	Hex Drive Only	.062	.960	.550	2.260	.605	.781	3.235	12.0	2.844	.172	5/8	1/4	.0625 – .0655	.285 – .290
													5/16	.0625 – .0655	.347 – .352
													3/8	.094 – .097	.417 – .427
FSBR015	Hex Drive Only	.062	1.200	.600	2.400	.605	.945	3.235	12.0	2.844	.187	5/8	5/16	.0625 – .0655	.347 – .352
													3/8	.094 – .097	.417 – .427
													1/2	.125 – .128	.560 – .567
FSBR035	Hex Drive Only	.094	1.905	.239	2.810	.280	.891	3.500	18.0	3.125	.200	1 1/8	3/8	.094 – .097	.417 – .427
													1/2	.125 – .128	.560 – .567
													5/8	.1885 – .1905	.709 – .716
FSBR050	Hex Drive Only	.094	1.905	.239	2.810	.280	.891	3.500	18.0	3.125	.200	1 1/8	5/8	.1885 – .1905	.709 – .716
													3/4	.1885 – .1905	.836 – .844
													1 1/8	.125 – .128	.560 – .567
FSBR100	Hex Drive Only	.140	1.870	.545	4.000	.555	1.188	5.250	18.0	4.750	.216	1 1/2	1/2	.125 – .128	.560 – .567
													5/8	.1885 – .1905	.709 – .716
													3/4	.1885 – .1905	.836 – .844

Customer Shall Maintain:

the perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch T.I.R. at a diameter equal to the brake body outside diameter; the concentricity between the mounting holes and the shaft not to exceed .020 inch T.I.R.

NOTES:

Hex Drive – FSBR

1. Refer to dimension "A" for the distance the hub should be installed on the shaft from the mounting surface.
2. Dimension "F" is the minimum length of the hex hub.

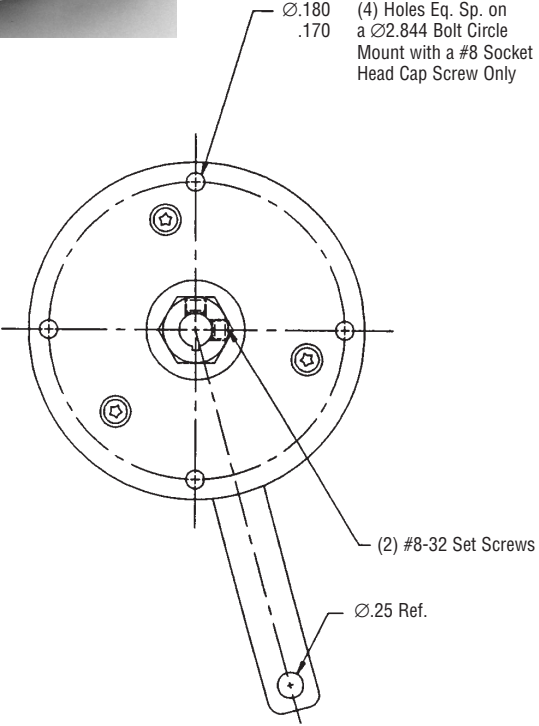
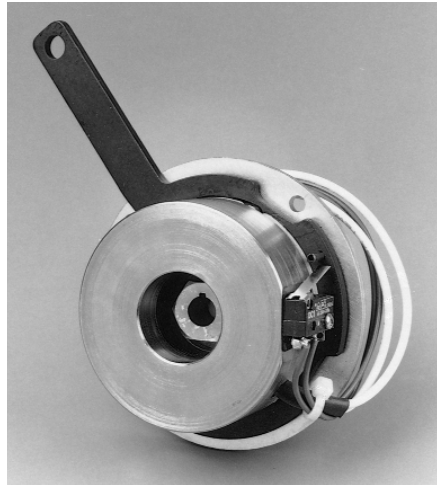
See page 3 for ordering information

Inertia Dynamics features a type FSBR015 spring applied brake with a manual release lever. The brake incorporates a lever which is rotated to mechanically engage the clapper plate. The clapper plate acts against the compression springs and allows the armature disc to spin freely. The brake is then free of torque. An optional microswitch is activated on the field assembly to disconnect power to your system in case of an accidental start-up with the brake manually released. To return the brake to normal operation, the lever is rotated to re-engage the brake and produce torque.

Typical applications include wheelchairs, three-wheel carts/scooters, and fractional horsepower motors. The brake is available with a higher static torque rating for non-dynamic braking applications where only a statically engaged parking brake is needed.

For variations on the manual release brake configuration, in support of high volume OEM applications, consult Inertia Dynamics.

Caution:
Inertia Dynamics recommends the use of a switch or other method to ensure this brake is not operated while it is in the manually released mode.



Customer Shall Maintain:
the concentricity between mounting holes and mounting shaft not to exceed .020 T.I.R.; the perpendicularity of mounting face with respect to shaft not to exceed .005 T.I.R.

Bore Dimensions

HUB BORE	NOM. HEX	KEYWAY
.3130 – .3145 ⁵ / ₁₆	⁵ / ₈	¹ / ₃₂ X ¹ / ₁₆
.3755 – .3770 ³ / ₈	⁵ / ₈	³ / ₆₄ X ³ / ₃₂
.5005 – .5020 ¹ / ₂	³ / ₄	¹ / ₁₆ X ¹ / ₈

Electrical

VOLTS	WATTS	AMPS.	OHMS.
90 VDC	8.8	.098	922
24 VDC	8.9	.369	65.1
12 VDC	8.6	.719	16.7
120 VAC	8.7	.077	N.A.

NOTES:

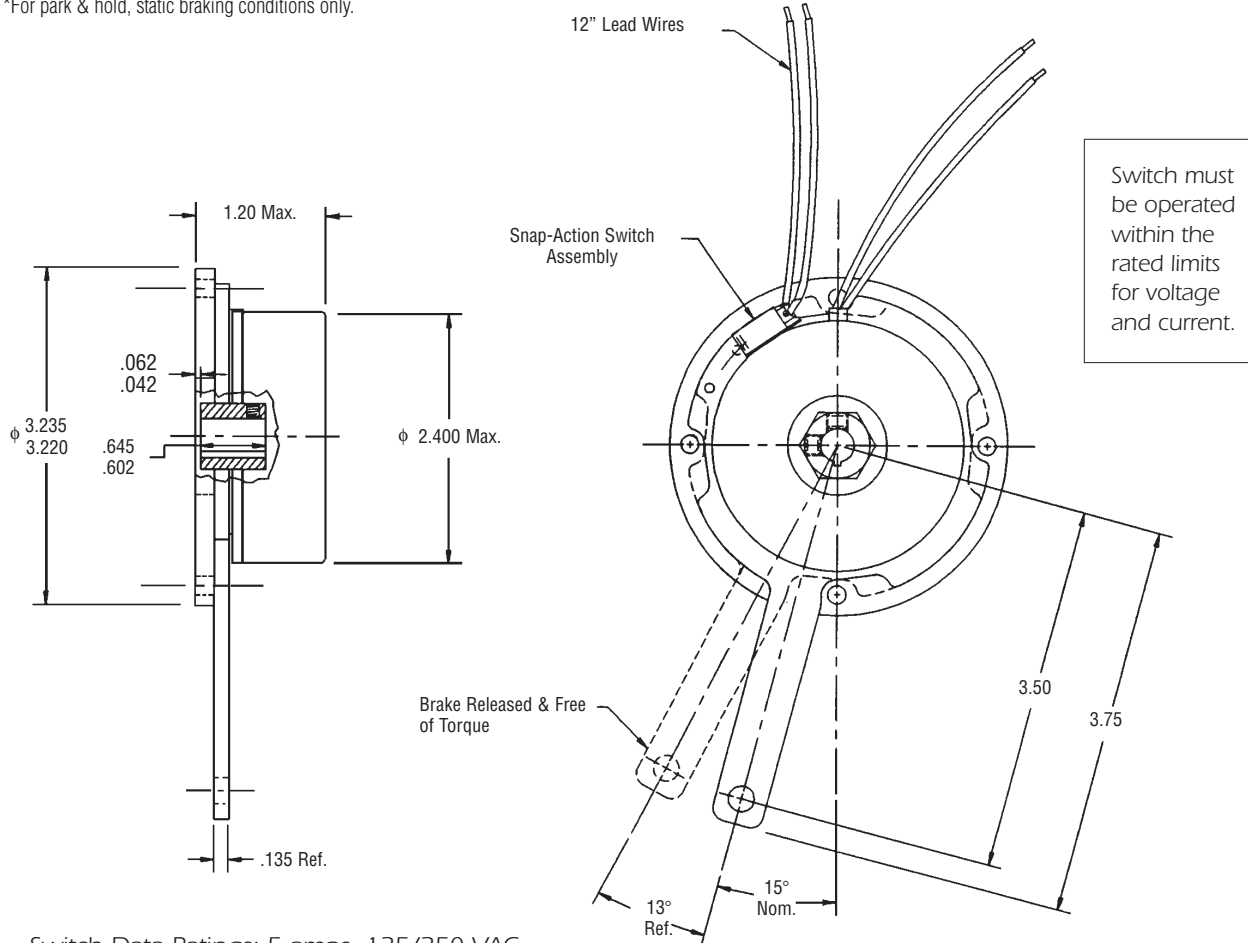
- Coil lead data: 22 AWG, 7/30 stranded, 105°C, 600V, UL, style 1430, insulation is .064" O.D.

Mechanical

	DYNAMIC STYLE	STATIC* STYLE	INERTIA (LB.-IN. ²) ARM & HUB	WGT. OZ.
Static Torque (LB. – IN.)	15	30	.0133	34 oz.

- 16 lbs. pull force maximum at 3.500 length on lever arm.

*For park & hold, static braking conditions only.



Switch Data Ratings: 5 amps, 125/250 VAC
Double-Throw Contacts
Short Solder Terminals

Engineering may substitute a switch of equal specifications.

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

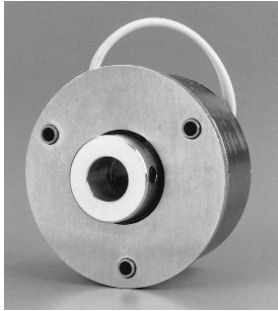
A			A			B			B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION			
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES			
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS			
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)			
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX			
			0	5	035			5	3/8	5	SPLINE					
			0	6	050			6	1/2							
			0	7	100			7	5/8							
			0	8	200			8	3/4							
0	1	SL	0	9	08			9	7/8							
0	3	BSL	1	0	11			0	1							
0	5	FL	1	1	15			11	1 1/8							
0	7	SO	1	2	17			12	1 1/4							
0	9	FO	1	3	19			13	1 3/8							
1	1	FB	1	4	22			14	1 1/2							
1	3	SLB	1	5	26											
1	5	SOB	1	6	30											
			1	7	42											
1	8	SAB	1	8	20											
			1	9	90											
			2	1	180											
			2	3	400											
			2	5	1200											

How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

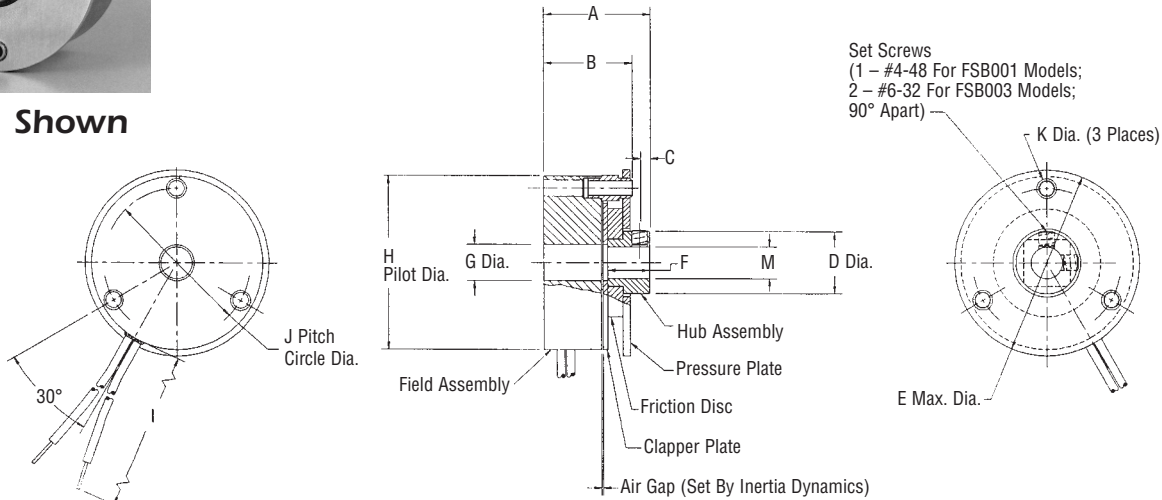
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521



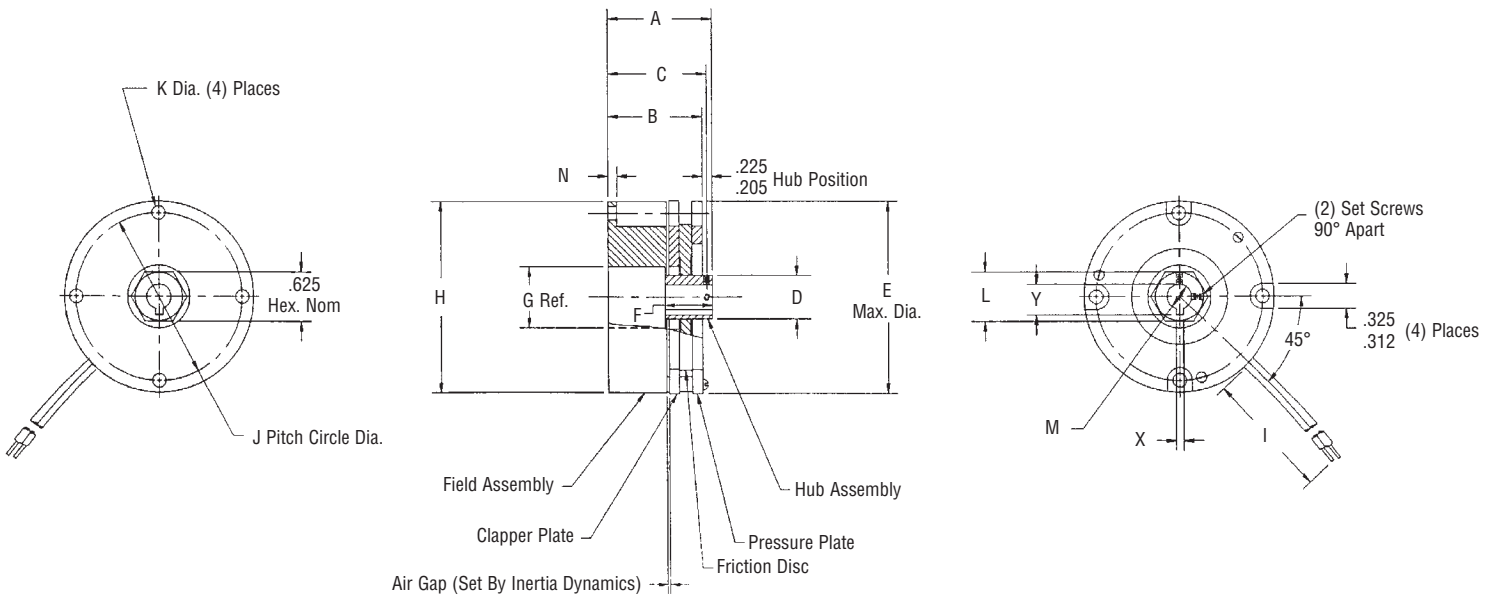
FSB001 Shown

Inertia Dynamics type FSB brakes are designed to decelerate or hold inertial loads when the voltage is turned off. These brakes can be mounted to a bulkhead or motor.

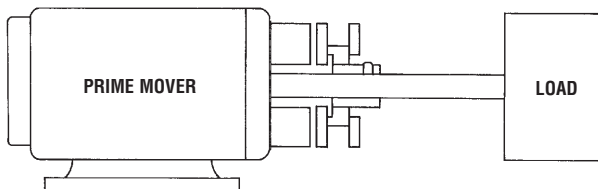
See page 30 for dimensional information



Model FSB001 or FSB003 - Square Drive



Model FSB007 or FSB015 - Hex Drive

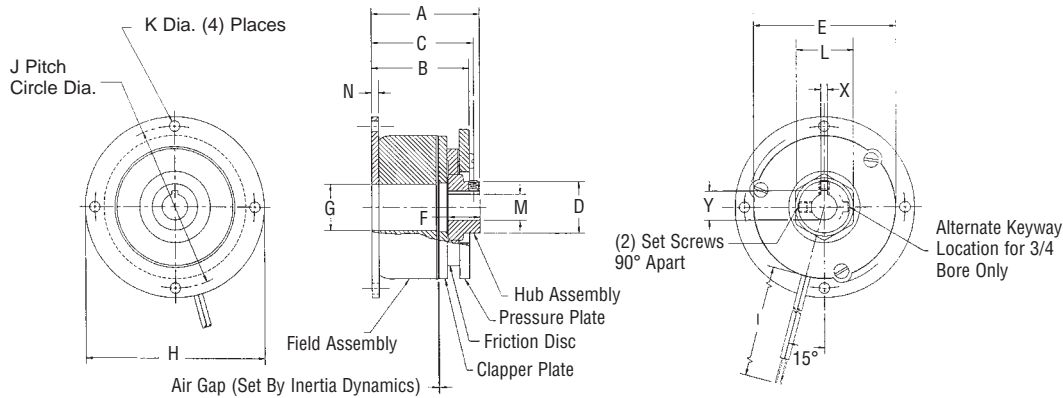


Customer Shall Maintain:

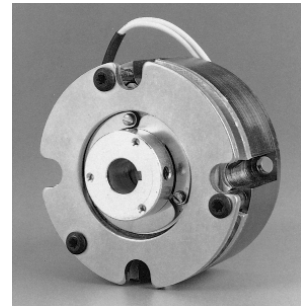
the perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch T.I.R. at a diameter equal to the brake body outside diameter; the concentricity between the mounting holes and the shaft not to exceed .010 T.I.R. for sizes 001-015 and .020 T.I.R. for sizes 035-100. Refer to instruction manual #040-10110.

ELECTROMATE
Toll Free Phone (877) SERV098
Toll Free Fax (877) SERV099
www.electromate.com
sales@electromate.com

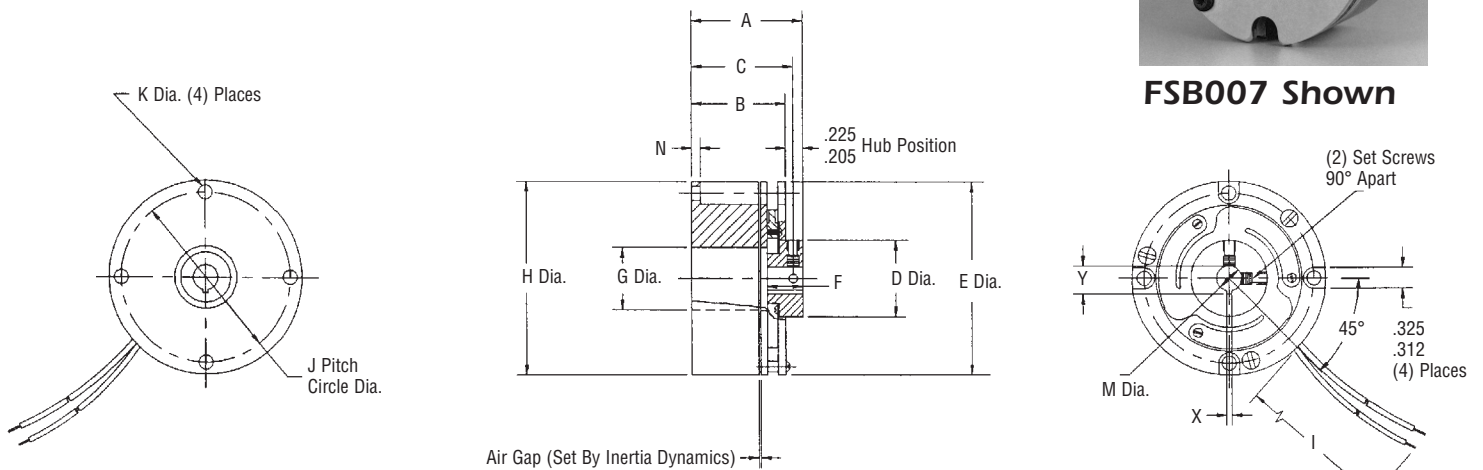
**See page 30 for
dimensional information**



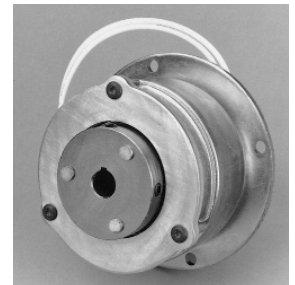
Model FSB035, FSB050, or FSB100 - Hex Drive



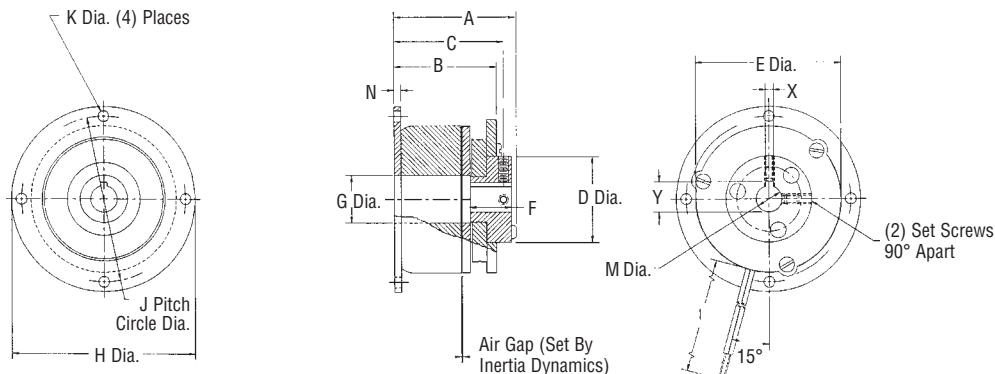
FSB007 Shown



Model FSB007 or FSB015 – Zero Backlash



FSB035 Shown



Model FSB035, FSB050 or FSB100 – Zero Backlash

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ² ARMATURE & HUB ASSEMBLY		WGT. OZ.
		SQUARE OR HEX DRIVE	ZERO BACKLASH	
FSB001	1	.0004	N.A.	2
FSB003	3	.0017	N.A.	3
FSB007	7	.0133	.0176	15
FSB015	15	.0133	.0176	16
FSB035	35	.084	.1733	33
FSB050	50	.084	.1733	36
FSB100	100	.205	N.A.	64

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC		120 VAC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
FSB001	.051	1880	.220	117	.430	30	.044	N.A.
FSB003	.041	2177	.182	132	.353	34	.050	N.A.
FSB007	.059	1520	.247	97.3	.477	25.1	.045	N.A.
FSB015	.098	922	.369	65.1	.719	16.7	.077	N.A.
FSB035	.093	964	.394	61.0	.755	15.9	.073	N.A.
FSB050	.194	465	.717	33.5	1.54	7.75	.140	N.A.
FSB100	.180	501	.707	34	1.41	8.5	.142	N.A.

Lead wire is UL recognized style 1430 or 1015, 22 gage.
Insulation is .064" O.D. on 001 & 003 units; .095" O.D. on 007, 015, 035, 050 & 100 units.

Dimensions

MODEL NO.	HUB STYLE	A MAX.	B MAX.	C NOM.	D MAX.	E MAX.	F MIN.	G REF.	H MAX.	I ± .500	J NOM.	K MIN.	L NOM.	N MAX.	M BORES & KEYWAYS		
															BORE	NOMINAL KEYWAY X Y	
FSB001	Square Drive	.890	.710	.072	.510	1.485	.320	.280	1.375	12.0	1.180	.113	3/8	N.A.	1/8 3/16 1/4	SET SCREWS ONLY	
FSB003	Square Drive	1.060	.870	.115	.755	1.910	.380	.410	1.752	12.0	1.545	.113	9/16	N.A.	3/16 1/4 5/16 3/8	SET SCREWS ONLY	
FSB007	Hex Drive	1.400	1.200	1.255	.722	2.465	.605	.781	2.436	12.0	2.125	.170	5/8	.120	1/4 5/16 3/8 1/2*	.0625 – .0655 .094 – .097 .125 – .128	.285 – .290 .347 – .352 .417 – .427 .560 – .567
	Zero Backlash	1.400	1.200	1.255	.955	2.465	.450	.781	2.436	12.0	2.125	.170	N.A.	—			
FSB015	Hex Drive	1.400	1.200	1.255	.722	2.465	.605	.781	2.436	12.0	2.125	.170	5/8	.120	1/4 5/16 3/8 1/2*	.0625 – .0655 .0625 – .0655 .094 – .097 .125 – .128	.285 – .290 .347 – .352 .417 – .427 .560 – .567
	Zero Backlash	1.400	1.200	1.255	.955	2.465	.450	.781	2.436	12.0	2.125	.170	N.A.	—			
FSB035	Hex Drive	2.110	1.920	1.960	1.000	3.010	.580	.891	3.500	18.0	3.125	.200	1 1/8	.142	3/8 1/2 5/8 3/4	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716 .836 – .844
	Zero Backlash	2.230	1.915	1.998	1.625	3.010	.730	.891	3.500	18.0	3.125	.200	N.A.	—			
FSB050	Hex Drive	2.110	1.920	1.960	1.000	3.010	.580	.891	3.500	18.0	3.125	.200	1 1/8	.142	3/8 1/2 5/8 3/4	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716 .836 – .844
	Zero Backlash	2.230	1.915	1.998	1.625	3.010	.730	.891	3.500	18.0	3.125	.200	N.A.	—			
FSB100	Hex Drive	2.320	2.080	2.100	.975	4.000	.555	1.188	5.250	18.0	4.750	.216	1 1/2	.210	1/2 5/8 3/4	.125 – .128 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844

*1/2" bore available in Zero Backlash only.

NOTES:

Hex Drive – FSB

- For sizes 001 and 003, position hub .010-.020 inches back from friction disc with coil de-energized.
- For sizes 007 and larger, position hub .010-.030 inches back from clapper plate with coil de-energized.
- 1/2 inch bore not available for sizes 007 and 015.

Zero Backlash – FSB

- Position hub to run freely with coil energized taking care to center the friction disc between the clapper and pressure plate.

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B		B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION		
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES		
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS		
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)		
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX		
			0	5	035			5	3/8	5	SPLINE				
			0	6	050			6	1/2						
			0	7	100			7	5/8						
			0	8	200			8	3/4						
0	1	SL	0	9	08			9	7/8						
0	3	BSL	1	0	11			0	1						
0	5	FL	1	1	15			11	1 1/8						
0	7	SO	1	2	17			12	1 1/4						
0	9	FO	1	3	19			13	1 3/8						
1	1	FB	1	4	22			14	1 1/2						
1	3	SLB	1	5	26										
1	5	SOB	1	6	30										
			1	7	42										
1	8	SAB	1	8	20										
			1	9	90										
			2	1	180										
			2	3	400										
			2	5	1200										

How To Order

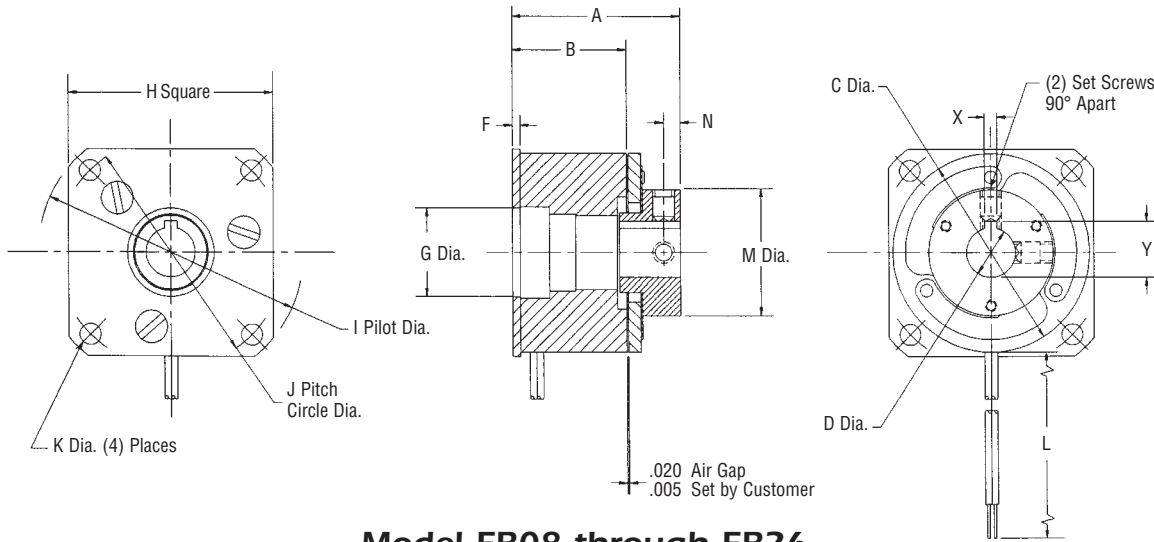
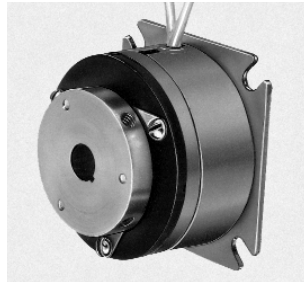
- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

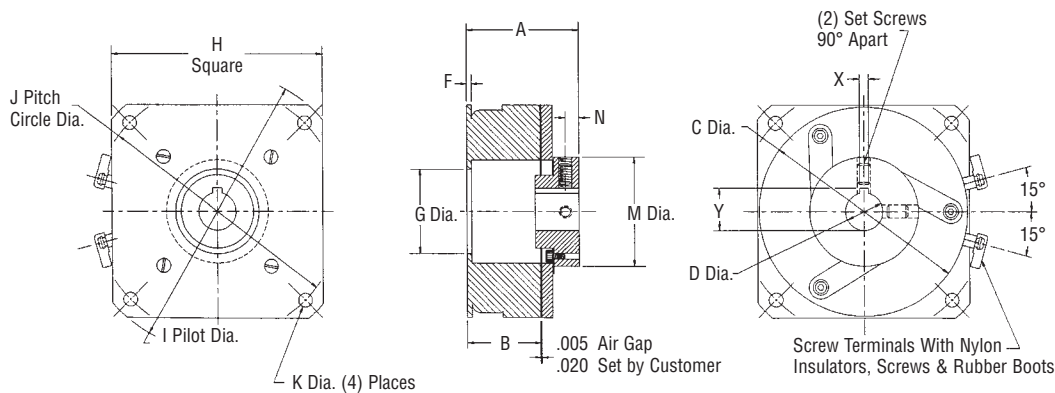
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Flange Mounted Brakes – Type FB

FB series power-on brakes are used to stop or hold a load that is coupled to the armature hub assembly. The armature hub is attached to the load shaft. The field assembly is mounted to a bulkhead that is perpendicular to the shaft.



Model FB08 through FB26



Model FB30 through FB42

Customer Shall Maintain:

the perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch T.I.R. at a diameter equal to the bolt circle; concentricity between the brake mounting pilot diameter and the shaft not to exceed .010 inch T.I.R; initial air gap setting of .005-.020 inches.

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²	WGT. OZ.
		ARM & HUB	
FB08	2.5	.0011	2.0
FB11	6	.0024	3.2
FB15	10	.026	3.8
FB17	15	.031	11
FB19	25	.042	12
FB22	50	.070	20
FB26	80	.320	28
FB30	125	.561	35
FB42	250	2.30	60

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
FB08	.049	1970	.117	205	.246	48.8
FB11	.047	1930	.198	121	.447	26.8
FB15	.042	2150	.183	132	.380	31.6
FB17	.066	1369	.289	83	.561	21.4
FB19	.074	1213	.322	74.4	.574	20.9
FB22	.079	1140	.322	74.6	.628	19.1
FB26	.092	980	.374	64.2	.760	15.8
FB30	.091	988	.378	65.3	.729	16.5
FB42	.124	722	.468	51.2	.934	12.84

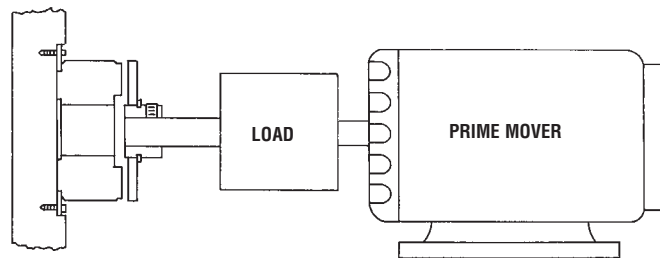
Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 08, 11, 15 units; .064" or .095" O.D. on all other units.

Dimensions

MODEL NO.	A MAX.	B NOM.	C MAX.	D NOM.	F MAX.	G ± .001	H MAX.	I ± .001	J NOM.	K MIN.	L ± .500	HUB KEYWAY			M MAX.	N NOM.
												BORE	NOMINAL KEYWAY X Y			
FB08	.885	.634	.905	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	.034	N.A.	.980	1.1995	1.030	.094	12.00	N.A.	SET SCREWS ONLY		.500	.070
FB11	.954	.650	1.160	$\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$	.052	N.A.	1.230	1.498	1.312	.123	12.00	N.A.	SET SCREWS ONLY		.687	.093
FB15	1.304	.867	1.500	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.063	N.A.	1.567	1.999	1.750	.156	12.00	N.A.	SET SCREWS ONLY		.960	.125
FB17	1.269	.848	1.780	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.064	.751	1.943	2.436	2.125	.186	12.00	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	285 – 290 .347 – .352 .417 – .427	1.190	.115
FB19	1.330	.901	2.000	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	.062	.751	1.943	2.436	2.125	.186	12.00	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	.0625 – .0655 .094 – .097 .125 – .128	.347 – .352 .417 – .427 .560 – .567	1.190	.115
FB22	1.757	1.173	2.260	$\frac{3}{8}$ $\frac{1}{2}$	.096	1.001	2.322	2.873	2.500	.160	18.00	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567	1.005	.115
FB26	1.815	1.300	2.645	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.080	1.062	2.630	3.499	3.125	.182	18.00	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716	1.440	.150
FB30	1.900	1.310	3.268	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.097	1.751	3.200	4.186	3.750	.182	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.125 – .128 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844	1.825	.150
FB42	2.280	1.490	4.270	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.097	1.875	4.255	5.624	5.000	.276	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 .251 – .253	.560 – .567 .709 – .716 .836 – .844 .962 – .970 1.113 – 1.121	2.195	.250

NOTES:

1. 08 units have set screws 120° apart.



See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B		B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION		
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES		
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS		
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)		
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX		
			0	5	035			5	3/8	5	SPLINE				
			0	6	050			6	1/2						
			0	7	100			7	5/8						
			0	8	200			8	3/4						
0	1	SL	0	9	08			9	7/8						
0	3	BSL	1	0	11			0	1						
0	5	FL	1	1	15			11	1 1/8						
0	7	SO	1	2	17			12	1 1/4						
0	9	FO	1	3	19			13	1 3/8						
1	1	FB	1	4	22			14	1 1/2						
1	3	SLB	1	5	26										
1	5	SOB	1	6	30										
			1	7	42										
1	8	SAB	1	8	20										
			1	9	90										
			2	1	180										
			2	3	400										
			2	5	1200										

How To Order

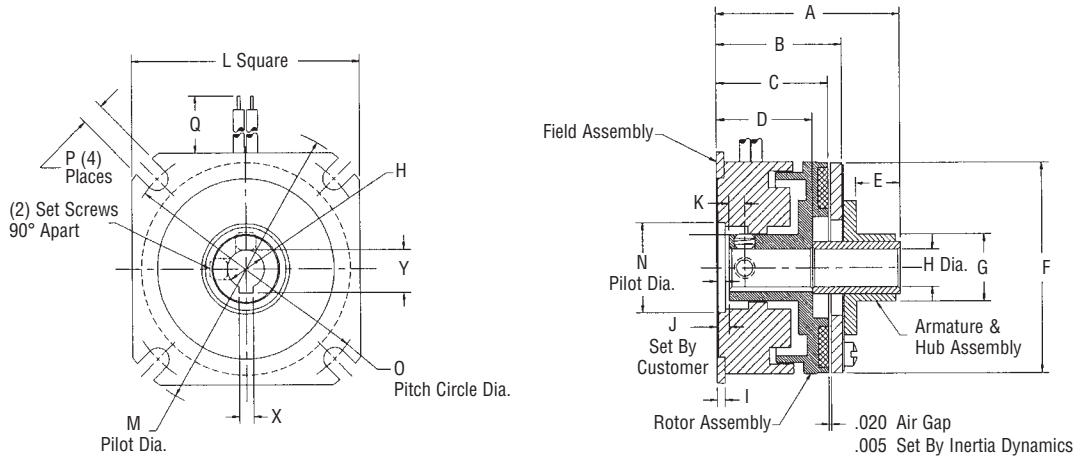
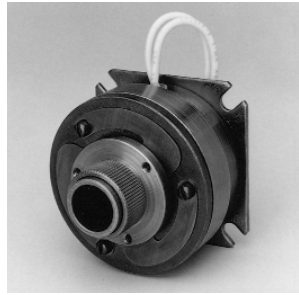
- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

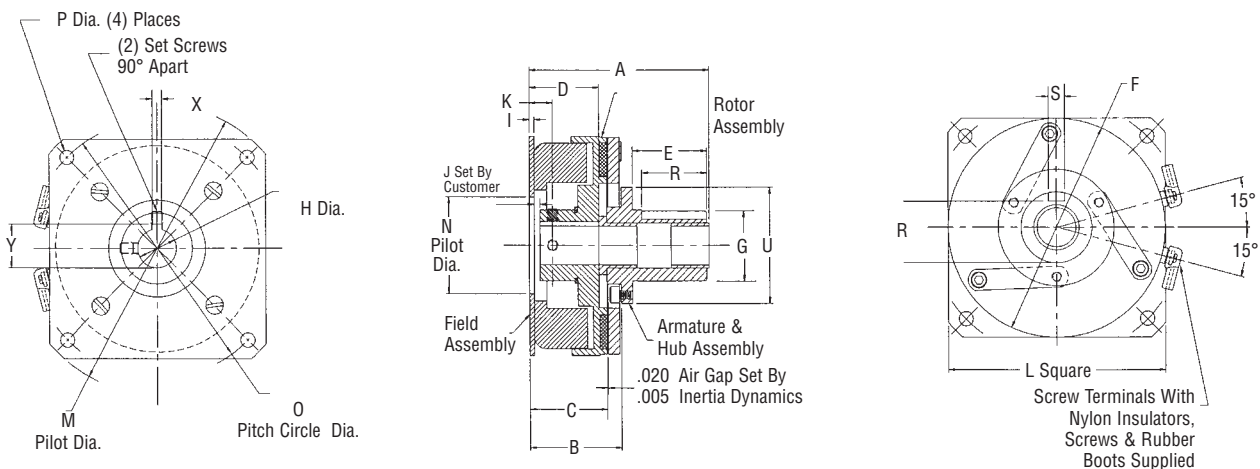
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Flange Mounted Clutches – Type FL

FL series power-on clutches are used to couple two parallel shafts. The armature hub assembly is mounted to the same shaft as the rotor assembly. The armature hub accommodates a pulley, gear, sprocket, etc., to transmit torque to the second shaft. The field assembly is mounted to a bulkhead that is perpendicular to the input shaft.



Model FL08 through FL26



Model FL30 or FL42

Customer Shall Maintain:

the perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch T.I.R. at a diameter equal to the bolt circle; concentricity between the clutch mounting pilot diameter and the shaft not to exceed .004 inch T.I.R.

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
FL08	2.5	.002	.0015	2.0
FL11	6	.005	.0029	3.2
FL15	10	.0054	.0031	3.8
FL17	15	.059	.036	11
FL19	25	.080	.047	12
FL22	50	.210	.079	20
FL26	80	.451	.292	28
FL30	125	.610	.561	45
FL42	250	2.50	2.30	80

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
FL08	.046	1977	.117	205	.246	48.8
FL11	.047	1930	.198	121	.447	26.8
FL15	.042	2150	.183	132	.380	31.6
FL17	.066	1369	.289	83	.561	21.4
FL19	.074	1213	.322	74.4	.574	20.9
FL22	.079	1140	.322	74.6	.628	19.1
FL26	.092	980	.374	64.2	.760	15.8
FL30	.091	988	.378	65.3	.729	16.5
FL42	.124	722	.468	51.2	.934	12.84

Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 08, 11, 15 units; .064" or .095" O.D. on all other units.

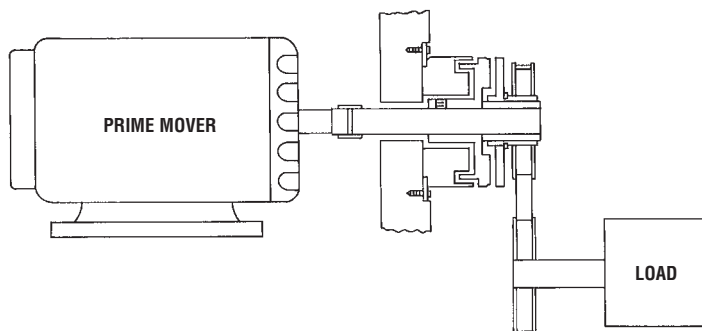
Dimensions

MODEL NO.	A MAX.	B NOM.	C NOM.	D NOM.	E MAX.	F MAX.	G ± .002.	H NOM.	I MAX.	J ± .005	K ± .005	L MAX.	M ± .001	N ± .001	O NOM.	P MIN.	Q ± .500	ROTOR KEYWAY						
																		BORE	NOMINAL KEYWAY		R MIN.	S ±.002		
																			X	Y				
FL08	1.203	.715	.641	.582	.410	.905	.507	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	.034	.020	.188	.980	1.1995	N.A.	1.030	.094	12.00	N.A.	ONE ROLL PIN PILOT HOLE		—	—	
FL11	1.253	.774	.691	.616	.396	1.160	.505	$\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$	.048	.020	.188	1.230	1.498	N.A.	1.312	.123	12.00	N.A.	ONE ROLL PIN PILOT HOLE		—	—	
FL15	1.420	.975	.870	.805	.303	1.500	.630	$\frac{1}{4}$ $\frac{3}{16}$ $\frac{3}{8}$	.063	.100	.130	1.567	1.999	N.A.	1.750	.156	12.00	N.A.	ONE ROLL PIN PILOT HOLE		—	—	
FL17	1.568	1.053	.925	.800	.382	1.789	.630	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.064	.100	.130	1.943	2.436	.751	2.125	.186	12.00	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	.285 – .290 .347 – .352 .417 – .427	—	—
FL19	1.675	1.050	.910	.790	.470	2.000	.756	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$.062	.100	.130	1.943	2.436	.751	2.125	.186	12.00	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$.0625 – .0655 .094 – .097	.347 – .352 .417 – .427	ROLL PIN HOLE		—	—
FL22	1.928	1.328	1.173	1.023	.432	2.260	.756	$\frac{3}{8}$ $\frac{1}{2}$	.096	.100	.188	2.322	2.873	1.001	2.500	.160	18.00	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567	—	—
FL26	2.173	1.458	1.300	1.150	.472	2.645	.999	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.064	.375	.172	2.630	3.499	1.062	3.125	.182	18.00	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716	—	—
FL30	2.575	1.580	1.310	1.160	.830	3.268	1.374	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.097	.147	.310	3.200	4.186	1.751	3.750	.182	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.125 – .128 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844	1.198 1.193	.312 .314
FL42*	3.540	1.760	1.490	1.345	1.550	4.255	1.374	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.097	.190	.250	4.255	5.624	1.875	5.000	.276	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ * 1*	.125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 .251 – .253	.560 – .567 .709 – .716 .836 – .844 .962 – .970 1.113 – .1.121	1.198 1.193	.312 .314		

* $\frac{7}{8}$ and 1 inch bore in rotor only.

NOTES:

- 08, 11 and 15 units have one roll pin pilot hole in rotor – no set screws.
- 26 units have (3) – #8–32 tapped holes on 1.375 in. B.C. in armature hub face instead of knurl.
- 30 and 42 units have keyway instead of knurl.
- $\frac{7}{8}$ and 1 inch bore in rotor only for 42 unit.



See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B			B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION			
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES			
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS			
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)			
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX			
			0	5	035			5	3/8	5	SPLINE					
			0	6	050			6	1/2							
			0	7	100			7	5/8							
			0	8	200			8	3/4							
0	1	SL	0	9	08			9	7/8							
0	3	BSL	1	0	11			0	1							
0	5	FL	1	1	15			11	1 1/8							
0	7	SO	1	2	17			12	1 1/4							
0	9	FO	1	3	19			13	1 3/8							
1	1	FB	1	4	22			14	1 1/2							
1	3	SLB	1	5	26											
1	5	SOB	1	6	30											
			1	7	42											
1	8	SAB	1	8	20											
			1	9	90											
			2	1	180											
			2	3	400											
			2	5	1200											

How To Order

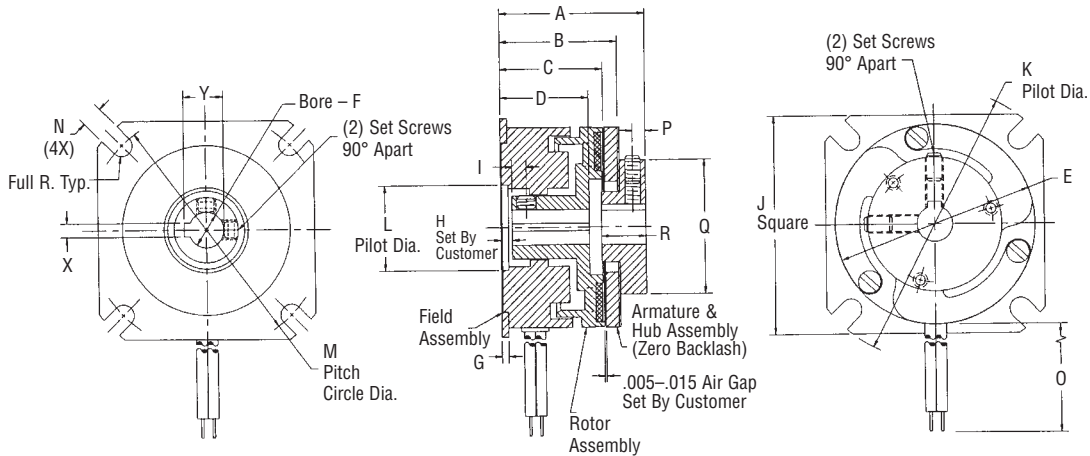
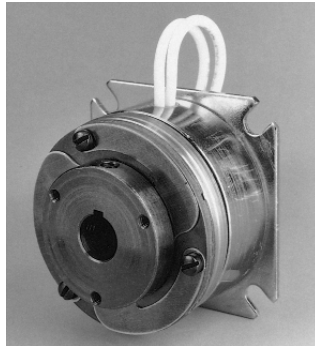
- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

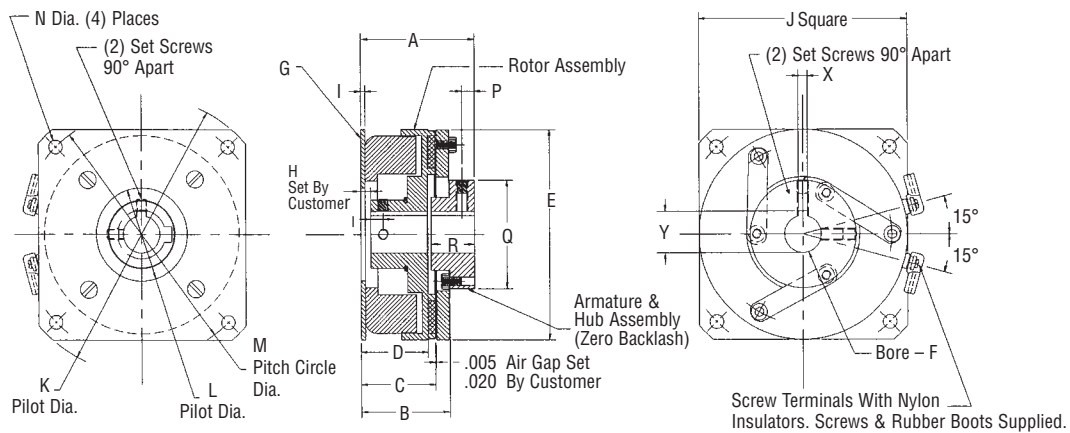
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Flange Mounted Clutch Couplings – Type FO

FO series power-on clutch couplings are used to couple two in-line shafts. The armature hub assembly is mounted to the load shaft, and the rotor assembly is mounted on the input shaft. The field assembly is mounted to a bulkhead that is perpendicular to the shaft.



Model FO08 through FO26



Model FO30 through FO42

Customer Shall Maintain:

the perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch T.I.R. at a diameter equal to the bolt circle; initial air gap setting of .005-.020 inches; concentricity between the clutch mounting pilot diameter and the shaft not to exceed .004 inch T.I.R.

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
FO08	2.5	.0019	.0011	2
FO11	6	.005	.0024	3.2
FO15	10	.0054	.026	3.8
FO17	15	.059	.031	11
FO19	25	.080	.042	12
FO22	50	.210	.070	20
FO26	80	.451	.320	28
FO30	125	.610	.561	40
FO42	250	2.50	2.30	75

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
FO08	.046	1977	.117	205	.246	48.8
FO11	.047	1930	.198	121	.447	26.8
FO15	.042	2150	.183	132	.380	31.6
FO17	.066	1369	.289	83	.561	21.4
FO19	.074	1212	.322	74.4	.574	20.9
FO22	.079	1140	.322	74.6	.628	19.1
FO26	.088	1024	.358	67.1	.667	18.0
FO30	.091	988	.378	65.3	.729	16.5
FO42	.124	722	.468	51.2	.934	12.84

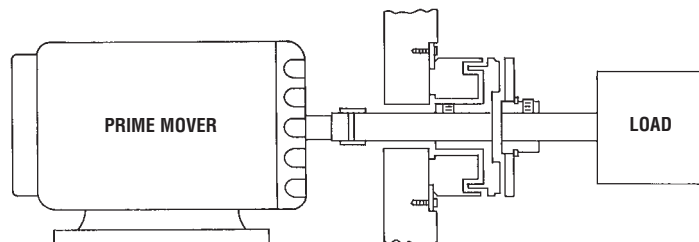
Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 08, 11, 15 units; .064" or .095" O.D. on all other units.

Dimensions

MODEL NO.	A MAX.	B NOM.	C NOM.	D NOM.	E MAX.	F NOM.	G MAX.	H ± .005	I ± .005	J MAX.	K ± .001	L ± .001	M NOM.	N MIN.	O ± .500	KEYWAYS			P NOM.	Q MAX.	R MAX.		
																BORE	NOMINAL KEYWAY X Y						
FO08	.882	.693	.641	.582	.905	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	.034	.020	.188	.980	1.1995	N.A.	1.030	.094	12.00	N.A.	ONE ROLL PIN PILOT HOLE		.070	.500	.237	
FO11	1.012	.772	.691	.616	1.160	$\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$	.048	.020	.188	1.230	1.498	N.A.	1.312	.123	12.00	N.A.	ONE ROLL PIN PILOT HOLE		.093	.687	.307	
FO15	1.302	.972	.865	.800	1.500	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.063	.100	.130	1.567	1.999	N.A.	1.750	.156	12.00	N.A.	ONE ROLL PIN PILOT HOLE		.125	.965	.475	
FO17	1.328	1.051	.925	.800	1.780	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.064	.100	.130	1.943	2.436	.751	2.125	.186	12.00	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	.285 – .290 .347 – .352 .417 – .427	.115	1.19	.45
FO19	1.330	1.029	.901	.781	2.000	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$.062	.100	.130	1.943	2.436	.751	2.125	.186	12.00	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$.0625 – .0655 .094 – .097	.347 – .352 .417 – .427	ROLL PIN HOLE		.115	1.19	.455
FO22	1.757	1.325	1.173	1.023	2.260	$\frac{3}{8}$ $\frac{1}{2}$	.096	.100	.188	2.322	2.873	1.001	2.500	.160	18.00	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567	.115	1.005	.510
FO26	1.813	1.460	1.300	1.150	2.645	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.080	.375	.172	2.630	3.499	1.062	3.125	.182	18.00	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716	.150	1.44	.610
FO30	1.900	1.580	1.310	1.160	3.268	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.097	.147	.093	3.200	4.186	1.751	3.750	.182	SCREW TER-MINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.125 – .128 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844	.150	1.825	.680
FO42	2.280	1.760	1.490	1.490	4.270	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.097	.190	.250	4.270	5.624	1.875	5.000	.276	SCREW TER-MINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844 .962 – .970	.250	2.195	.890		

NOTES:

- 08, 11 and 15 units have one roll pin pilot hole in rotor – no set screws.



See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B		B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION		
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES		
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS		
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)		
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX		
			0	5	035			5	3/8	5	SPLINE				
			0	6	050			6	1/2						
			0	7	100			7	5/8						
			0	8	200			8	3/4						
0	1	SL	0	9	08			9	7/8						
0	3	BSL	1	0	11			0	1						
0	5	FL	1	1	15			11	1 1/8						
0	7	SO	1	2	17			12	1 1/4						
0	9	FO	1	3	19			13	1 3/8						
1	1	FB	1	4	22			14	1 1/2						
1	3	SLB	1	5	26										
1	5	SOB	1	6	30										
			1	7	42										
1	8	SAB	1	8	20										
			1	9	90										
			2	1	180										
			2	3	400										
			2	5	1200										

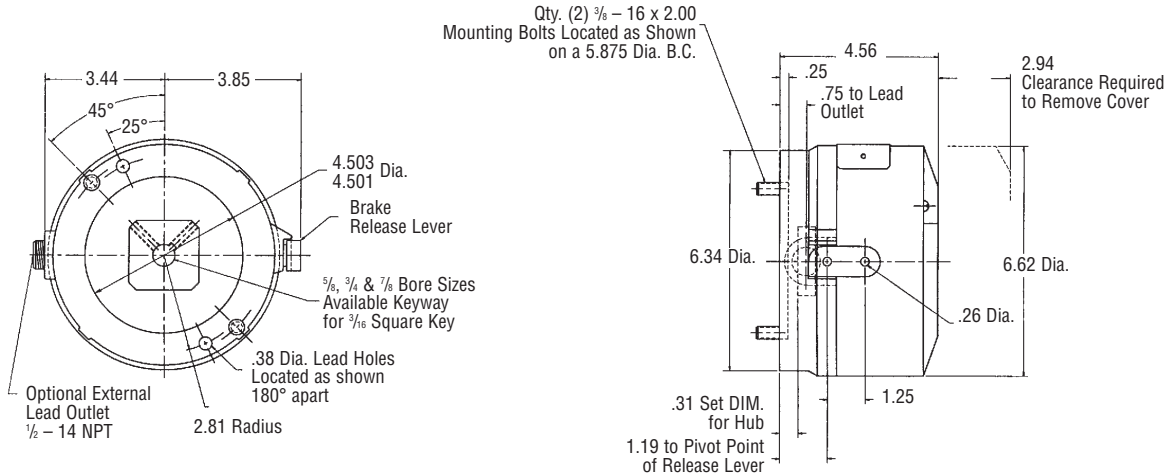
How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

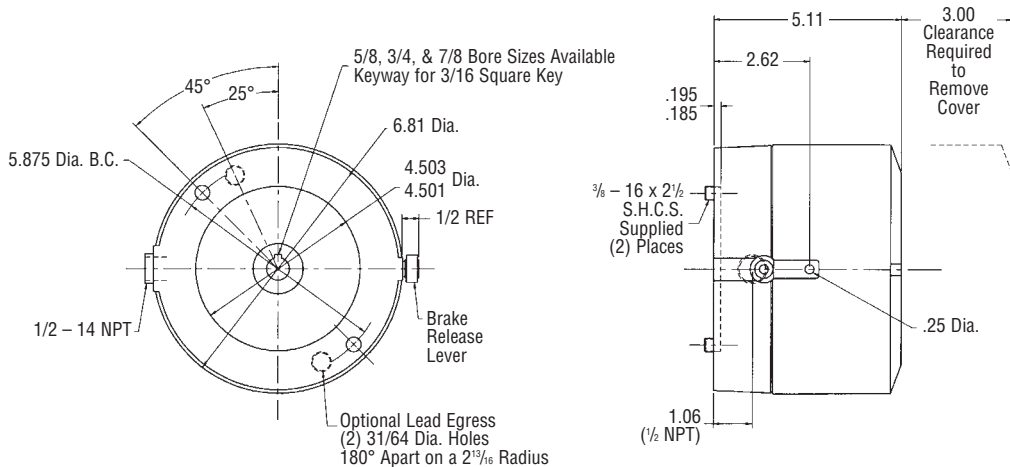
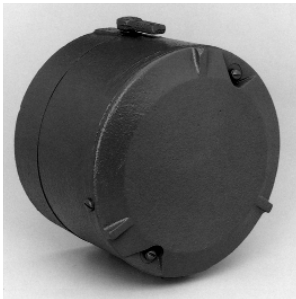
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

The Inertia Dynamics Single C-Face Power-Off Brakes are designed to decelerate or hold inertial loads when the power is turned off. The single C-Face mounts on the fan or nondriven end of a motor. Brakes are available from 3 lb.-ft. to 15 lb.-ft.



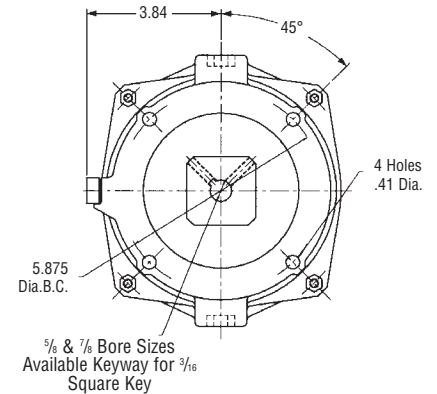
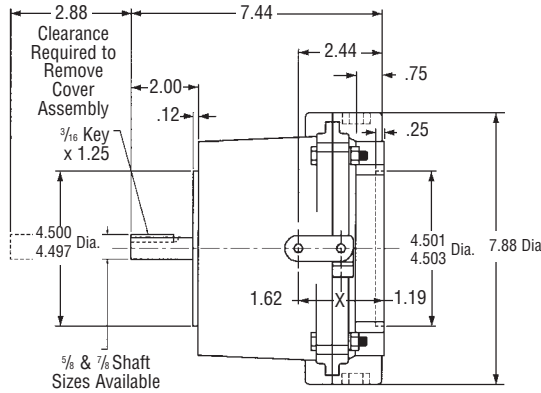
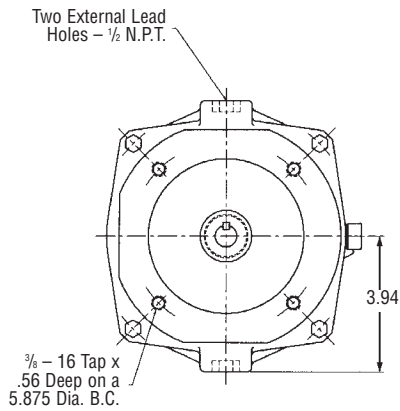
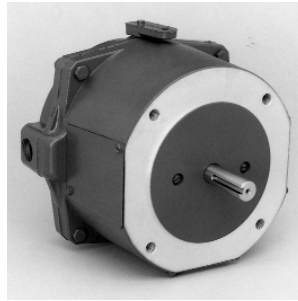
Single C-Face, Power-Off Brake

The Inertia Dynamics single C-Face Power-Off Brake with cast iron housing is made for applications involving corrosive environments. The heavy-duty housing also includes o-ring seals to create a dust-tight brake.



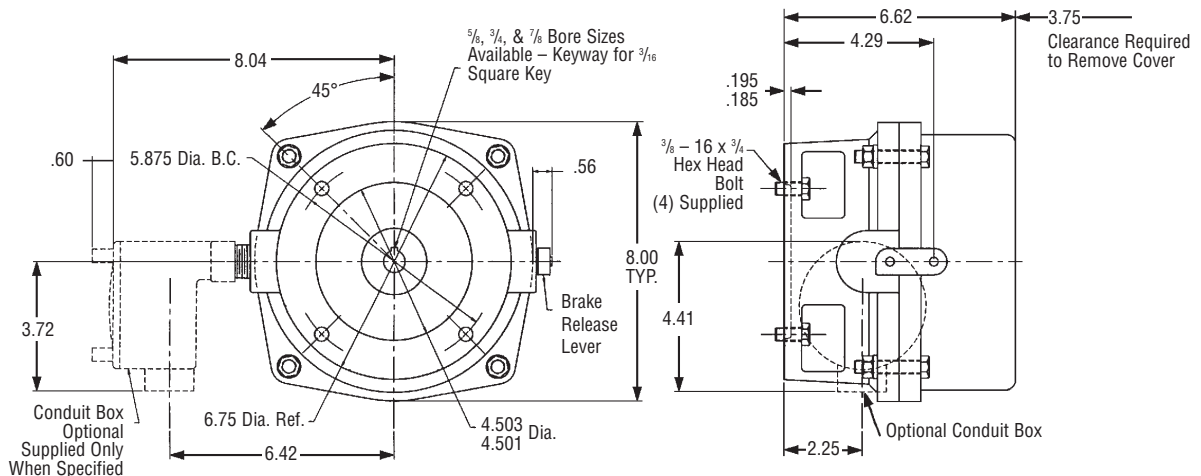
Single C-Face, Power-Off Brake With Cast Iron Housing

The Inertia Dynamics Double C-Face Brake is designed for use as a coupler between standard C-Face motors and C-Face gear reducers. An optional foot mount kit is also available with this unit.



Double C-Face, Power-Off Brake

The Inertia Dynamics Motor Brake is available in a single C-Face Explosion-Proof (XP) enclosure. The housing is designed to comply with NEC outlines for Class I, Group D, and Class II, Groups F&G.



Single C-Face, Explosion-Proof Power-Off Brake

PART NUMBERING SYSTEM

		A		B		C		D		E		F		G		H		I	
LETTER	TYPE	DIGIT	SERIES	DIGIT	NO. OF DISCS	LETTER	HUB BORE	DIGIT	ENCLOSURE TYPE	DIGIT	BRAKE TORQUE	DIGIT	LEAD OUTLET	DIGIT	COIL VOLTAGE (VAC)	LETTER	CONFIGURATION		
A	Add on Brake	5	50 Series	1	1 Disc	A	5/8"	0	Standard	3	3 lb.-ft.	0	No Outlet		Stamp N/P Coil Voltage (VAC LO/VAC HI/Hz)	M	Original Configuration		
F	Single C-Face (F Brake)			2	2 Discs	B	3/4"	1	SXT – Cast Iron	6	6 lb.-ft.	1	Lead Outlet Thru Head w/o Leads	1				115/230/60	
M	Double C-Face w/o Feet			3	3 Discs	C	7/8"	3	Special	7	10 lb.-ft.			2				200/400/60	
N	Double C-Face w/ Feet					Z	Special	4	XP – Internal	8	15 lb.-ft.	2	Lead Outlet Thru Head w/ Leads	3				230/460/60	
								5	XP – External			3	Lead Outlet Thru Head w/ Leads & C/B	4				230/460/60	
														5				287/575/60	
														8				115/230/50	
														9				220/440/50	
														Stamp N/P Blank-Suit For:					
														1				104/208/50	
														2	208/416/60				
														3	220/440/50				
														4	190/380/50				
														5	275-300/ 550-600/60				
														9	230/460/50				

How To Order

Read the product guide before determining the brake part number.

- A.** Select the brake type from the product guide.
- B.** For all motor brakes, select 5.
- C.** Select the number of discs: 3 lb.-ft. = 1 disc, 6 lb.-ft. = 2 discs, 10 lb.-ft. = 2 discs, 15 lb.-ft. = 3 discs.
- D.** Select the bore diameter.
- E.** Select the enclosure type.
- F.** Select the required brake torque.
- G.** Select the lead outlet.
- H.** Select the required brake coil voltage (VAC).
- I.** For all motor brakes, select M.

Example

Single C-Face brake, 5/8" bore, standard enclosure, 6 lb.-ft., no outlet, 230/460 VAC, 60Hz, F52A0604M.

Spring Applied — Power-Off Operation

Inertia Dynamics AC-style, spring applied motor brakes are designed to decelerate or park inertial loads when the voltage is turned off, either intentionally or accidentally, as in the case of power failure. The friction disc with the hub is coupled to the motor shaft to be braked but is capable of moving axially. When power is off, a spring force clamps the friction disc between a pressure plate and a stationary plate, hence retarding motion. When an AC voltage is applied, the solenoid creates a magnetic force which pulls a lever arm through a linkage mechanism and releases the friction disk. This allows the hub and motor shaft to turn freely.

Application

The motor brakes are commonly used as parking brakes to hold a load in place or as stopping brakes to dynamically decelerate a load. Applications include:

- Material Handling
- Food Processing
- Machine Tools

Selection Procedure

1. To make an accurate brake selection, first determine the motor frame size, shaft size, hp, and RPM where the brake will be mounted.
2. Use chart on the right for static brake torque selection. Note that chart selections are based on a 1.4 service factor and increased to the next highest standard brake torque rating. To select a brake using a different service factor, use the formula below to determine the required brake static torque. Once your torque requirement has been determined, select a brake with at least that capacity.
3. Consult Part Number chart on [page 60](#) for appropriate part number. Brake voltage should be matched with motor voltage rating.

Features

- External Manual Release Lever
- Totally Enclosed Construction
- Torque adjustable from full rated torque down to 50%
- Single phase AC coils provide fast engagement and release times and easy wiring

Mounting

Two styles are available: the single C-Face brake and the double C-Face brake. The single C-Face mounts on the fan end or non-driven end of a motor. The C-Face brake is interchangeable with existing brakes and can be used on motors that are modified to accept a brake. The double C-Face brake can be used as a coupler between standard C-Face motors and C-Face gear reducers. All motor brakes are interchangeable with competitive motor brakes.

Add-On Brakes

A complete kit is available to convert a standard Reliance Electric TEFC motor to a brake motor. The frame size must be 56 or 140. The kit is not available for special enclosures such as wash-down or explosion proof.

Motor Brake Coil Current

VOLTS (VAC)	HZ	BRAKE CURRENT (AMPS)	
		HOLDING	INRUSH
		115/230	60	.54/.27	4.8/2.4
200/400	.31/.15	2.8/1.4	
208/416	.32/.16	2.6/1.3	
230/460	.27/.13	2.6/1.3	
287/575	.22/.11	2.1/1.05	
104/208	50	.5/.25	5.3/2.65
115/230		.5/.25	5.4/2.7
190/380		.26/.13	3.0/1.5
220/440		.3/.15	3.3/1.65
230/460		.26/.13	2.7/1.36

Static Brake Torque Ratings* (Lb.- Ft.) Selection

HP	MOTOR SPEED (RPM)						
	750	900	1200	1500	1800	3000	3600
1/4	3	3	3	3	3	3	3
1/3	6	3	3	3	3	3	3
1/2	6	6	6	3	3	3	3
3/4	10	10	6	6	6	3	3
1	10	10	10	6	6	3	3
1 1/2	15	15	10	10	10	6	6
2	—	—	15	10	10	6	6
3	—	—	—	15	15	10	10
5	—	—	—	—	—	15	15

*Selections based on 1.4 service factor and increased to next highest standard brake torque rating.

$$T = \frac{HP \times 5252}{RPM} \times SF$$

T = Brake Static Torque (FT.-LBS.)

HP = Motor Horsepower

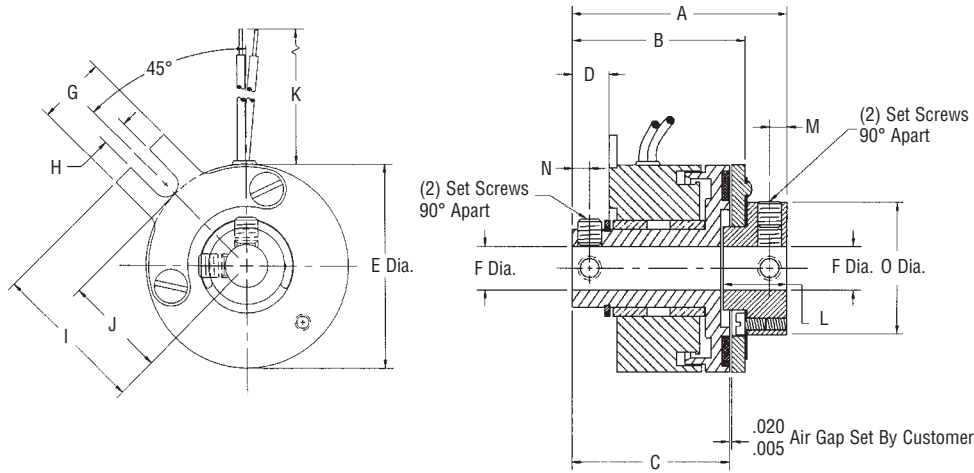
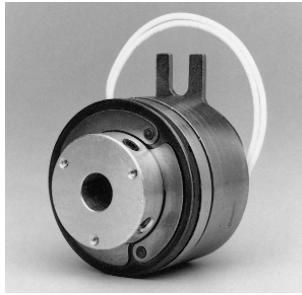
SF = Service Factor Desired

RPM = Motor Speed

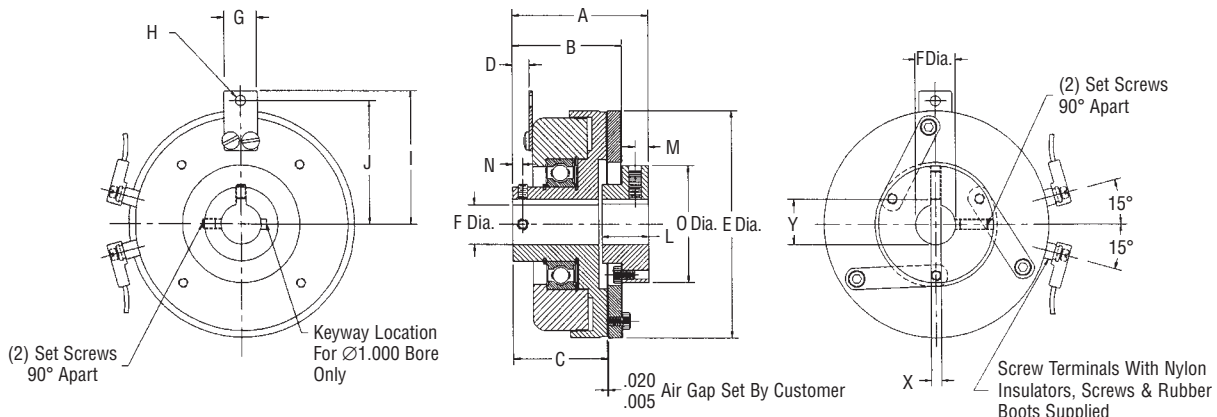
Shaft Mounted Clutch Couplings – Type SO

Electromagnetic Friction Clutches & Brakes

SO series power-on clutch couplings are used to couple two in-line shafts. The armature hub assembly is mounted to the load shaft, and the rotor assembly is mounted on the input shaft. The field assembly is mounted on the input shaft and retained by a loose-fitting pin or bracket through the anti-rotation tab.



Model SO08 through SO26



Model SO30 through SO42

Customer Shall Maintain:

a loose-fitting pin through the anti-rotation tab to prevent preloading the bearings; concentricity between the shafts within .005 inch T.I.R.; initial air gap setting of .005-.020 inches.

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
S008	2.5	.002	.0011	2
S011	6	.0058	.0024	3.2
S015	10	.060	.026	3.8
S017	15	.061	.031	11
S019	25	.082	.042	12
S022	50	.215	.070	20
S026	80	.362	.320	28
S030	125	.610	.561	45
S042	250	2.50	2.30	80

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
S008	.046	1977	.117	205	.246	48.8
S011	.047	1930	.198	121	.447	26.8
S015	.042	2150	.183	132	.380	31.6
S017	.066	1369	.289	83	.561	21.4
S019	.074	1213	.322	74.4	.574	20.9
S022	.079	1140	.322	74.6	.628	19.1
S026	.092	980	.374	64.2	.760	15.8
S030	.091	988	.378	65.3	.729	16.4
S042	.124	722	.468	51.2	.934	12.84

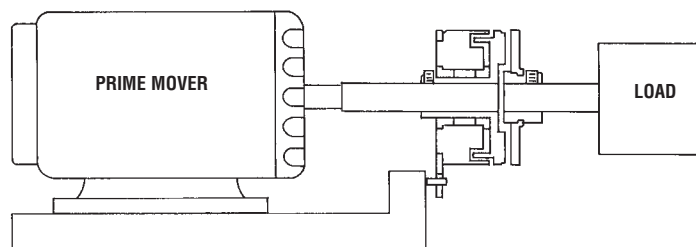
Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 08, 11, 15 units; .064" or .095" O.D. on all other units.

Dimensions

MODEL NO.	A MAX.	B NOM.	C NOM.	D NOM.	E MAX.	F NOM.	G MAX.	H MIN.	I NOM.	J NOM.	K ± .500	ROTOR KEYWAYS		L MAX.	M NOM.	N NOM.	O MAX.	
												BORE	NOMINAL KEYWAY X | Y					
S008	1.059	.875	.763	.191	.903	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	.305	.094	.625	.445	12.00	N.A.	SET SCREWS ONLY	.237	.070	.080	.500	
S011	1.168	.933	.777	.147	1.160	$\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$	.380	.122	.875	.585	12.00	N.A.	SET SCREWS ONLY	.307	.093	.087	.687	
S015	1.575	1.255	1.075	.275	1.500	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.520	.180	1.120	.750	12.00	N.A.	SET SCREWS ONLY	.475	.125	.125	.965	
S017	1.605	1.311	1.060	.270	1.780	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.505	.184	1.325	.975	12.00	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	.285 – .290 .347 – .352 .417 – .427	.460	.115	.125	1.190
S019	1.609	1.314	1.060	.270	2.000	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	.505	.184	1.325	.975	12.00	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	.0625 – .0655 .094 – .097 .125 – .128	.347 – .352 .417 – .427 .560 – .567	.455	.115	.125	1.190
S022	1.989	1.578	1.423	.281	2.260	$\frac{3}{8}$ $\frac{1}{2}$	.442	.170	1.515	1.160	18.00	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567	.510	.115	.117	1.005
S026	2.115	1.754	1.444	.277	2.645	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.510	.190	1.750	1.465	18.00	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716	.610	.150	.187	1.440
S030	2.151	1.815	1.403	.265	3.268	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.442	.170	2.050	1.695	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.125 – .128 .1885 – .1905 .1885 – .1905	.560 – .567 .709 – .716 .836 – .844	.680	.150	.135	1.825
S042	2.570	2.050	1.625	.320	4.270	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.645	.190	2.500	2.312	SCREW TERMINALS	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	.125 – .128 .1885 – .1905 .1885 – .1905 .1885 – .1905 .251 – .253	.560 – .567 .709 – .716 .836 – .844 .962 – .970 1.113 – 1.121	.890	.250	.187	2.195

NOTES:

- 30 and 42 units have a single ball bearing between the field and rotor.
- 08 units have set screws 120° apart.
- 08 and 19 units have retaining collar.



See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B		B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION		
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES		
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS		
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)		
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX		
			0	5	035			5	3/8	5	SPLINE				
			0	6	050			6	1/2						
			0	7	100			7	5/8						
			0	8	200			8	3/4						
0	1	SL	0	9	08			9	7/8						
0	3	BSL	1	0	11			0	1						
0	5	FL	1	1	15			11	1 1/8						
0	7	SO	1	2	17			12	1 1/4						
0	9	FO	1	3	19			13	1 3/8						
1	1	FB	1	4	22			14	1 1/2						
1	3	SLB	1	5	26										
1	5	SOB	1	6	30										
			1	7	42										
1	8	SAB	1	8	20										
			1	9	90										
			2	1	180										
			2	3	400										
			2	5	1200										

How To Order

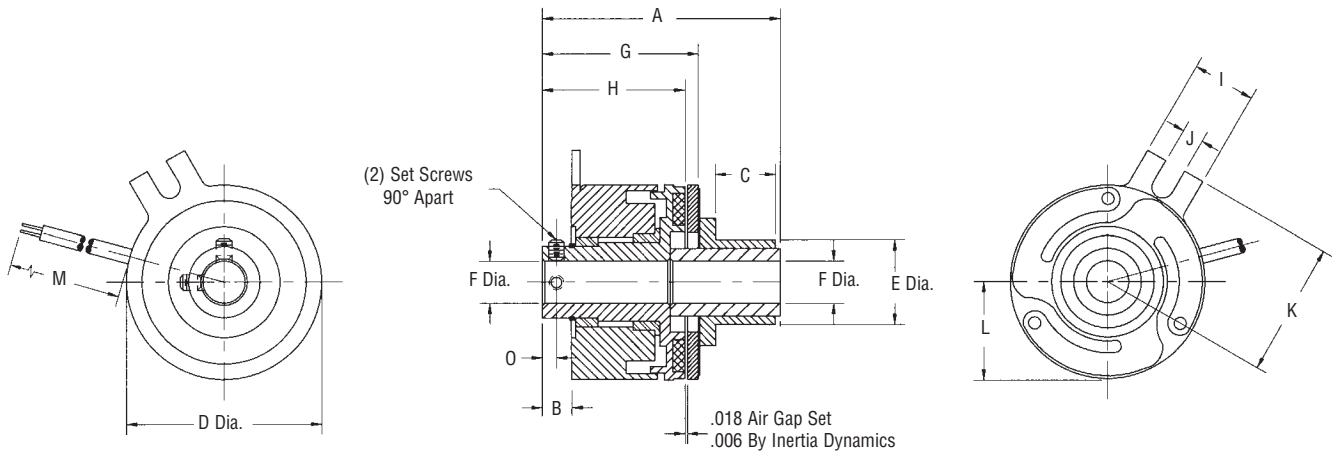
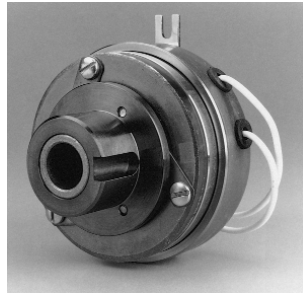
- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

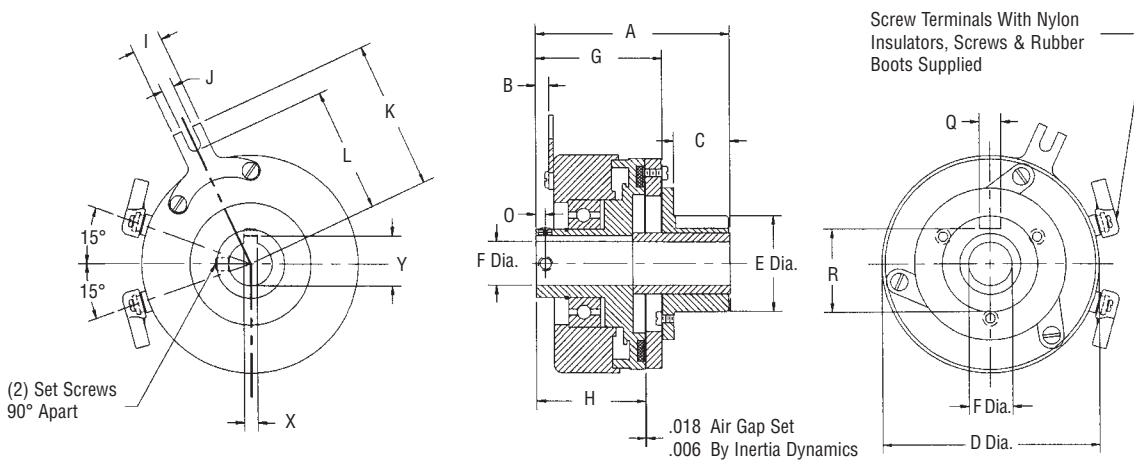
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Shaft Mounted Clutches – Type SL

SL/BSL series power-on clutches are used to couple two parallel shafts. The armature hub assembly is mounted to the same shaft as the rotor assembly. The armature hub accommodates a pulley, gear, sprocket, etc., to transmit torque to the second shaft. The field assembly is mounted to the shaft and retained by a loose-fitting pin or bracket through the anti-rotation tab.



Model SL08 Through SL26



Model SL30 through SL42

Customer Shall Maintain:
a loose-fitting pin through the anti-rotation tab to prevent preloading the bearings.

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
SL08	2.5	.002	.0015	2.0
SL11	6	.0058	.0029	3.2
SL15	10	.060	.0031	3.8
SL17	15	.061	.036	11
SL19	25	.082	.047	12
SL22	50	.215	.079	20
SL26	80	.362	.292	28
SL30	125	.610	.561	50
SL42	250	2.50	2.30	85

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
SL08	.046	1977	.117	205	.246	48.8
SL11	.047	1930	.198	121	.447	26.8
SL15	.042	2150	.183	132	.380	31.6
SL17	.066	1369	.289	83	.561	21.4
SL19	.074	1213	.294	81.6	.574	20.9
SL22	.079	1140	.322	74.6	.628	19.1
SL26	.092	980	.374	64.2	.760	15.8
SL30	.091	988	.378	65.3	.729	16.5
SL42	.124	722	.468	51.2	.934	12.84

Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 08, 11, 15 units; .064" or .095" O.D. on all other units.

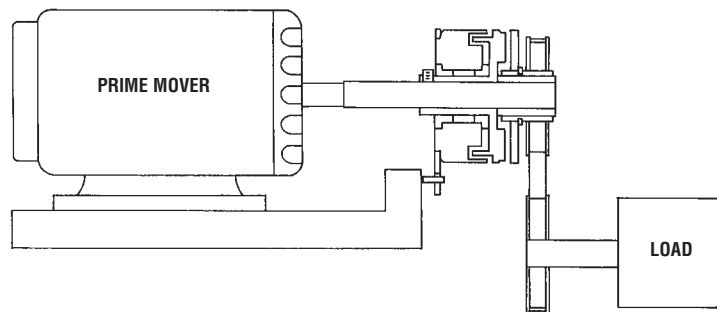
Dimensions

MODEL NO.	A MAX.	B NOM.	C MAX.	D MAX.	E ± .002	F NOM.	G NOM.	H NOM.	I MAX.	J MIN.	K NOM.	L NOM.	M ± .500	O NOM.	ROTOR KEYWAY	
															BORE	NOMINAL KEYWAY X Y
SL08	1.370	.191	.410	.903	.507	$\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$	.874	.763	.305	.094	.625	.445	12.00	.080	N.A.	SET SCREWS ONLY
SL11	1.409	.147	.396	1.160	.506	$\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$	.935	.777	.380	.122	.875	.585	12.00	.087	N.A.	SET SCREWS ONLY
SL15	1.695	.275	.303	1.500	.630	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	1.255	1.075	.520	.180	1.120	.750	12.00	.125	N.A.	SET SCREWS ONLY
SL17	1.823	.279	.382	1.780	.630	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	1.316	1.060	.505	.184	1.325	.975	12.00	.125	N.A.	SET SCREWS ONLY
SL19	1.948	.279	.465	2.000	.756	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	1.329	1.060	.505	.184	1.325	.975	12.00	.125	$\frac{5}{16}$ $\frac{3}{8}$ $\frac{1}{2}$	.0625 – .0655 .094 – .097 .347 – .352 .417 – .427 SET SCREWS
SL22	2.160	.281	.432	2.260	.756	$\frac{3}{8}$ $\frac{1}{2}$	1.578	1.423	.442	.170	1.515	1.160	18.00	.117	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128 .560 – .567
SL26	2.454	.280	.472	2.645	.999	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	1.740	1.437	.510	.190	1.750	1.465	18.00	.154	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .560 – .567 .1885 – .1905 .709 – .716
SL30	2.800	.250	.830	3.268	1.374	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	1.815	1.390	.442	.170	2.050	1.695	SCREW TERMINALS	.135	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	.125 – .128 .1885 – .1905 .709 – .716 .1885 – .1905 .836 – .844
SL42*	3.820	.320	1.560	4.270	1.374	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1	2.050	1.625	.645	.190	2.500	2.312	SCREW TERMINALS	.187	$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ 1*	.125 – .128 .1885 – .1905 .709 – .716 .1885 – .1905 .836 – .844 .962 – .970 .251 – .253 1.113 – 1.121

* $\frac{7}{8}$ and 1 inch bore in rotor only.

Notes:

- 08 units have set screws 120° apart
- 08 and 19 units have retaining collar
- 30 and 42 units have single ball bearing between field and rotor
- 26 units have (3)-#8-32 tapped holes on 1.375 in. B.C. in armature hub face instead of knurl
- 30 and 42 units have keyway instead of knurl (O=.312/.314, R=1.198/1.193)
- $\frac{7}{8}$ and 1 inch bore in rotor only for 42 unit



See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

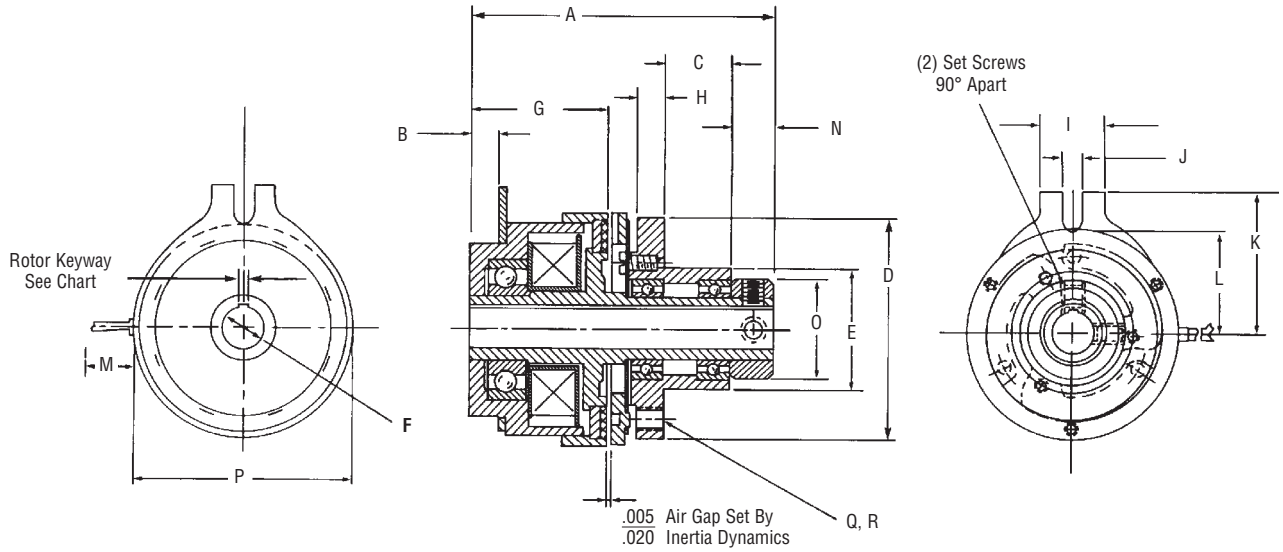
A			A			B			B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION			
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES			
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS			
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)			
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX			
			0	5	035			5	3/8	5	SPLINE					
			0	6	050			6	1/2							
			0	7	100			7	5/8							
			0	8	200			8	3/4							
0	1	SL	0	9	08			9	7/8							
0	3	BSL	1	0	11			0	1							
0	5	FL	1	1	15			11	1 1/8							
0	7	SO	1	2	17			12	1 1/4							
0	9	FO	1	3	19			13	1 3/8							
1	1	FB	1	4	22			14	1 1/2							
1	3	SLB	1	5	26											
1	5	SOB	1	6	30											
			1	7	42											
1	8	SAB	1	8	20											
			1	9	90											
			2	1	180											
			2	3	400											
			2	5	1200											

How To Order

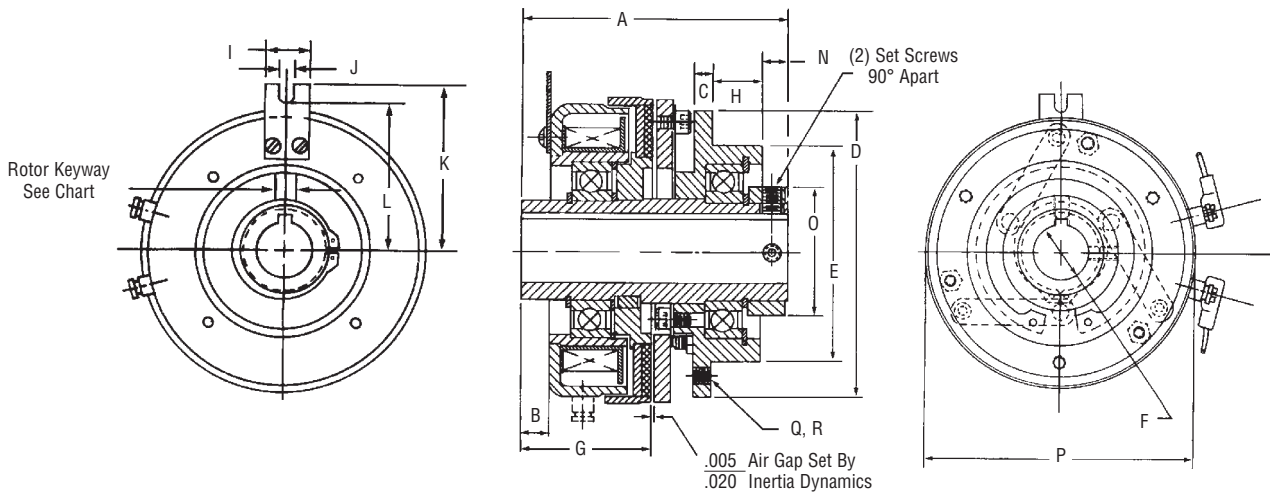
- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

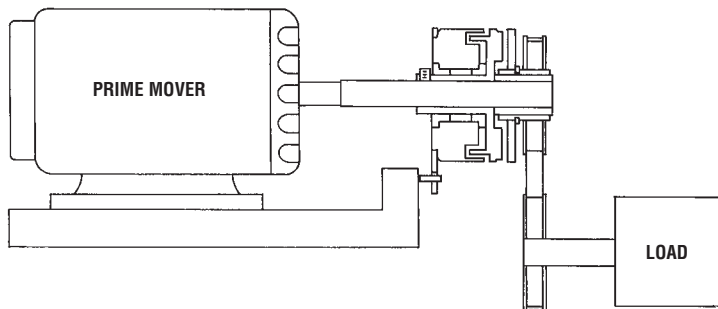
SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521



Model BSL11 & BSL17



Model BSL26, BSL30 & BSL42



Inertia Dynamics features five sizes of ball bearing clutches. All sizes have ball bearing armature and field assemblies for heavy duty applications, allowing higher shaft speeds and side loads to be achieved. All BSL clutches are shaft mounted for easy installation and operate in the same manner as our SL series clutches.



Mechanical

MODEL NO.	STATIC TORQUE LB.-IN.	INERTIA LB. - IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
BSL11	6	.013	.030	8
BSL17	15	.052	.095	26
BSL26	80	.290	.530	38
BSL30	125	.560	.990	54
BSL42	250	2.250	4.990	94

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
BSL11	.048	1848	.188	120	.447	26.8
BSL17	.066	1369	.289	83.1	.561	21.4
BSL26	.088	1024	.358	67.1	.760	15.8
BSL30	.091	988	.378	65.3	.729	16.5
BSL42	.124	722	.468	51.2	.934	12.84

Lead wire is UL recognized style 1213, 1015 or 1430, 22 gage.
Insulation is .050" O.D. on 11 unit; .064" or .095" O.D. on all other units.

Dimensions

MODEL NO.	A MAX.	B MAX.	C NOM.	D MAX.	E ± .001	F NOM.	G NOM.	H NOM.	I MAX.	J MIN.	K NOM.	L NOM.	M ± .500	N NOM.	O NOM.	P MAX.	ROTOR KEYWAY			Q B.C.	R SIZE
																	BORE	NOMINAL KEYWAY X* | Y*			
BSL11	1.785	.184	.405	1.380	.7485	$\frac{3}{16}$ $\frac{1}{4}$	.812	.163	.380	.125	.875	.625	12.00	.250	.625	1.285	N.A.	SET SCREWS ONLY		1.125 3-Holes	6-32 UNC-2B
BSL17	2.515	.304	.500	1.755	.9985	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	1.290	.193	.505	.184	1.325	.975	12.00	.315	.875	1.620	N.A.	SET SCREWS ONLY		1.437 3-Holes	8-32 UNC-2B
BSL26	2.930	.140	.260	2.505	1.498	$\frac{1}{2}$ $\frac{5}{8}$	1.375	.500	.510	.190	1.750	1.467	SCREW TER- MINALS	.420	1.187	2.645	$\frac{1}{2}$ $\frac{5}{8}$	.125 - .128 .1885 - .1905	.560 - .567 .709 - .716	1.790 3-Holes	6-32 UNC-2B
BSL30	2.961	.140	.395	2.883	1.498	$\frac{1}{2}$	1.360	.500	.442	.170	2.050	1.740	SCREW TER- MINALS	.408	1.187	3.300	$\frac{1}{2}$	.125 - .128	.560 - .567	1.790 3-Holes	6-32 UNC-2B
BSL42	3.350	.000	.267	4.015	2.999	$\frac{3}{4}$ $\frac{7}{8}$ 1	1.405	.673	.645	.188	2.500	2.216	SCREW TER- MINALS	.383	1.810	4.270	$\frac{3}{4}$ $\frac{7}{8}$ 1	.1885 - .1905 .1885 - .1905 .251 - .253	.836 - .844 .962 - .970 1.113 - 1.121	3.500 3-Holes	$\frac{1}{4}$ -20 UNC-2B

NOTES:

- BSL42 has a .188-.195 diameter hole in the anti-rotation tab.
- BSL26 has two ball bearings in field and armature assemblies.
- BSL30 has two ball bearings in armature assembly.
- BSL26 uses a special key provided by IDI for $\frac{5}{8}$ " bore.

*X denotes keyway width, Y denotes keyway height plus bore.

See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B			B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION			
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES			
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS			
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)			
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX			
			0	5	035			5	3/8	5	SPLINE					
			0	6	050			6	1/2							
			0	7	100			7	5/8							
			0	8	200			8	3/4							
0	1	SL	0	9	08			9	7/8							
0	3	BSL	1	0	11			0	1							
0	5	FL	1	1	15			11	1 1/8							
0	7	SO	1	2	17			12	1 1/4							
0	9	FO	1	3	19			13	1 3/8							
1	1	FB	1	4	22			14	1 1/2							
1	3	SLB	1	5	26											
1	5	SOB	1	6	30											
			1	7	42											
1	8	SAB	1	8	20											
			1	9	90											
			2	1	180											
			2	3	400											
			2	5	1200											

How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

Example

SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

Shaft Mounted Clutches/Power-On Brakes – Type SLB and SOB

The SLB and SOB series are shaft mounted clutch/power-on brake packages that are used to couple two parallel or in-line shafts.

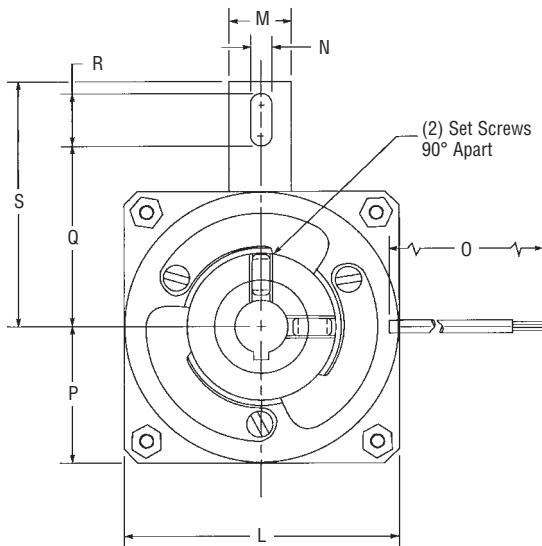
The clutch/brake package combines the features of our model SL or SO with an FB into one unit for easy installation.

The clutch armature hub accommodates a pulley, gear, sprocket, etc., to transmit torque to the second shaft. The brake is used to stop or hold the load.

The clutch/brake package is shaft mounted and retained by a loose-fitting pin or bracket through the anti-rotation tab.



SLB and SOB

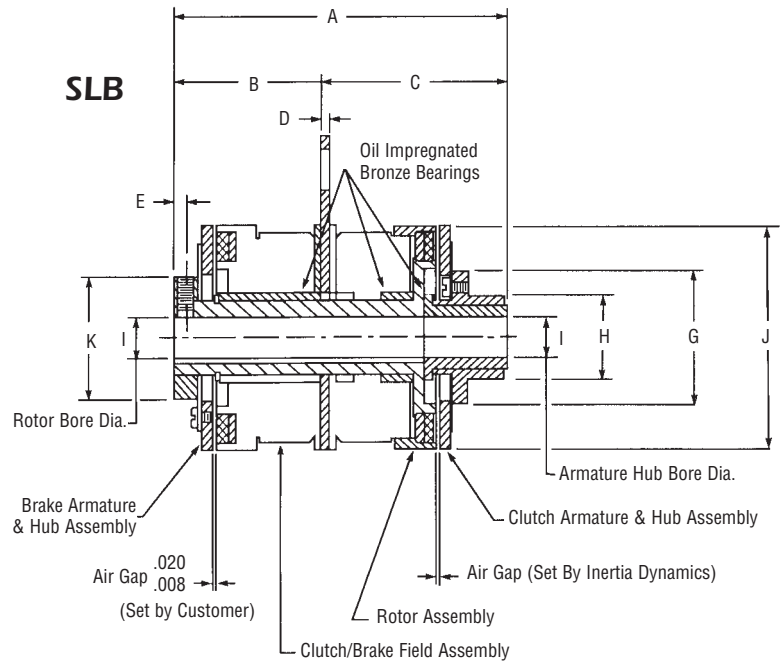


(2) Set Screws
90° Apart

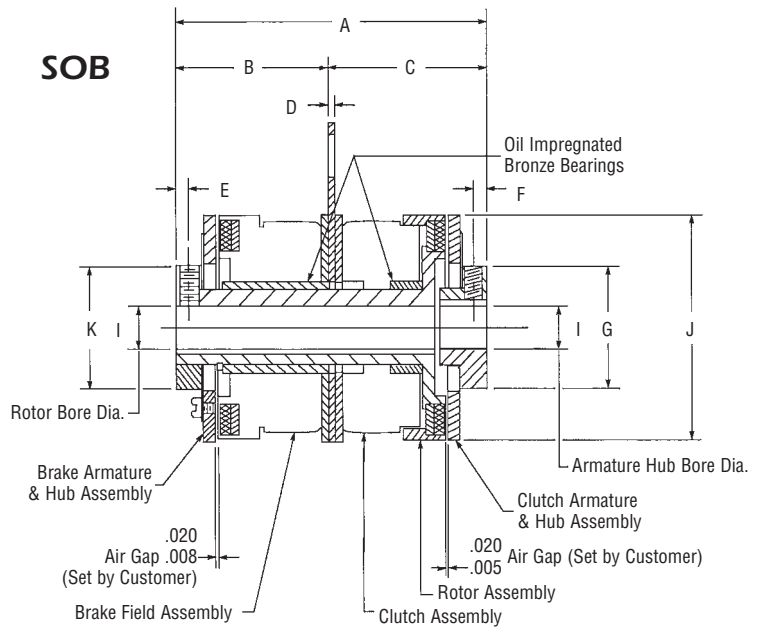
Customer Shall Maintain:

a loose-fitting pin through the anti-rotation tab to prevent pre-loading the bearings; initial air gap setting of .008-.020 inches on the brake side. On SOB models concentricity between the shafts within .005 T.I.R.

SLB



SOB



Shaft Mounted Clutches/Power-On Brakes – Type SLB and SOB

Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. ²		WGT. OZ.
		ROTOR	ARM & HUB	
SLB11 SOB11	6	.0089	.0029 .0024	7
SLB17 SOB17	15	.098	.0360 .0310	22
SLB19 SOB19	25	.129	.0470 .0420	25
SLB22 SOB22	50	.295	.0790 .0700	45
SLB26 SOB26	80	.660	.2920 .3200	60

Electrical

MODEL NO.	90 VDC		24 VDC		12 VDC	
	AMPS	OHMS	AMPS	OHMS	AMPS	OHMS
SLB11 SOB11	.047	1930	.198	121	.447	26.8
SLB17 SOB17	.066	1369	.289	83	.561	21.4
SLB19 SOB19	.074	1213	.322	74.4	.574	20.9
SLB22 SOB22	.079	1140	.322	74.6	.628	19.1
SLB26 SOB26	.088	1024	.350	67.1	.667	18.0

Lead wire is UL recognized style 1213, 1015 or 1429, 22 gage.
Insulation is .050" O.D. on 11 unit; .064" or .095" O.D. on all other units.

Dimensions

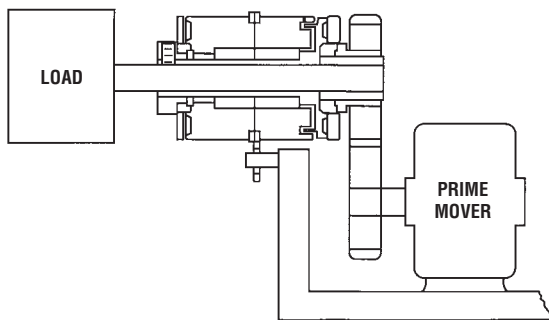
MODEL NO.	A MAX.	B REF.	C NOM.	D MAX.	E NOM.	F *	G MAX.	H **	I NOM.	J MAX.	K MAX.	L MAX.	M MAX.	N MIN.	O ± .5	P MAX.	Q MIN.	R MIN.	S MAX.	KEYWAYS		
																				BORE	NOMINAL KEYWAY X	Y
SLB11	2.225	.974	1.229	.051	.094	.410	.700	.506	$\frac{1}{4}$ $\frac{5}{16}$	1.160	.700	1.240	.520	.140	12.00	.630	.630	.300	1.050	N.A.	SET SCREWS ONLY	
SOB11	1.970	.974	.983	.051	.094	.094	.700	–	$\frac{1}{4}$ $\frac{5}{16}$	1.160	.700	1.240	.520	.140	12.00	.630	.630	.300	1.050	N.A.	SET SCREWS ONLY	
SLB17	2.855	1.245	1.590	.066	.114	.390	1.207	.629	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	1.780	1.207	1.960	.520	.190	12.00	.990	1.100	.510	1.707	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	.285 – .290 .347 – .352 .417 – .427
SOB17	2.608	1.245	1.340	.066	.114	.114	1.207	–	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	1.780	1.207	1.960	.520	.190	12.00	.990	1.100	.470	1.707	$\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .0625 – .0655 .094 – .097	.285 – .290 .347 – .352 .417 – .427
SLB19	2.993	1.258	1.715	.066	.114	.475	1.207	.756	$\frac{5}{16}$ $\frac{3}{8}$	2.000	1.207	1.960	.520	.190	12.00	.990	1.100	.470	1.707	$\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .094 – .097	.347 – .352 .417 – .427
SOB19	2.615	1.258	1.337	.066	.114	.114	1.207	–	$\frac{5}{16}$ $\frac{3}{8}$	2.000	1.207	1.960	.520	.190	12.00	.990	1.100	.470	1.707	$\frac{5}{16}$ $\frac{3}{8}$	.0625 – .0655 .094 – .097	.347 – .352 .417 – .427
SLB22	3.737	1.722	1.995	.093	.115	.450	1.453	.756	$\frac{3}{8}$ $\frac{1}{2}$	2.260	1.453	2.340	.580	.190	18.00	1.180	1.136	.480	1.832	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567
SOB22	3.552	1.722	1.810	.093	.115	.115	1.453	–	$\frac{3}{8}$ $\frac{1}{2}$	2.260	1.453	2.340	.580	.190	18.00	1.180	1.136	.480	1.832	$\frac{3}{8}$ $\frac{1}{2}$	.094 – .097 .125 – .128	.417 – .427 .560 – .567
SLB26	4.050	1.778	2.240	.093	.150	.427	1.610	.999	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	2.640	1.450	2.650	.645	.190	18.00	1.335	1.730	.480	2.395	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716
SOB26	3.677	1.815	1.842	.093	.150	.150	1.450	–	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	2.640	1.450	2.650	.645	.190	18.00	1.335	1.730	.480	2.395	$\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$	.094 – .097 .125 – .128 .1885 – .1905	.417 – .427 .560 – .567 .709 – .716

*SLB maximum; SOB nominal.

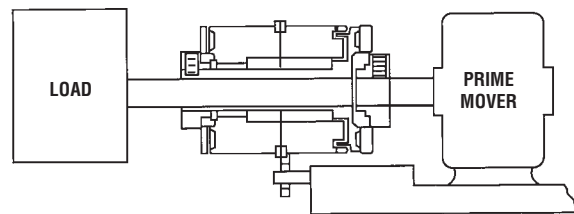
**SLB hub O.D. ± .002; SOB hub length nominal.

NOTES:

- SLB 26 units have (3)–#8-32 tapped holes on 1.375 in. B.C. in armature hub face instead of knurl.



SLB



SOB

See page 3 for ordering information

PART NUMBERING SYSTEM FOR PRODUCTS ON PAGES 3 TO 35 OF THIS CATALOG

A			A			B			B-C		D		E		F	
DIGIT	DIGIT	MODEL NO.	DIGIT	DIGIT	SIZE	DIGIT	VOLTS	DIGIT	BORE	DIGIT	DRIVE	DIGIT	CONNECTION			
1	7	FSB	0	1	001	1	90 VDC	1	1/8	1	ZERO BACKLASH	1	LEAD WIRES			
1	9	FSBR	0	2	003	2	24 VDC	2	3/16	2	HEX/SQUARE	2	SCREW TERMINALS			
2	1	FSBR (MANUAL RELEASE)	0	3	007	3	12 VDC	3	1/4	3	DYNAMIC (MANUAL RELEASE BRAKE ONLY)	3	SWITCH (MANUAL RELEASE BRAKE ONLY)			
			0	4	015	4	120 VAC	4	5/16	4	STATIC (MANUAL RELEASE BRAKE ONLY)	4	CONDUIT BOX			
			0	5	035			5	3/8	5	SPLINE					
			0	6	050			6	1/2							
			0	7	100			7	5/8							
			0	8	200			8	3/4							
0	1	SL	0	9	08			9	7/8							
0	3	BSL	1	0	11			0	1							
0	5	FL	1	1	15			11	1 1/8							
0	7	SO	1	2	17			12	1 1/4							
0	9	FO	1	3	19			13	1 3/8							
1	1	FB	1	4	22			14	1 1/2							
1	3	SLB	1	5	26											
1	5	SOB	1	6	30											
			1	7	42											
1	8	SAB	1	8	20											
			1	9	90											
			2	1	180											
			2	3	400											
			2	5	1200											

How To Order

- A. Select the model number from the product guide.
- B. Select the size of the clutch or brake.
- C. Select the voltage.
- D. Select the bore diameter.
- E. For all power-on clutches and brakes, select 1. For model FSBR and SAB-20, & 90, select 2. For model FSB spring applied brakes, select 1 or 2. For manual release brakes, select 3 or 4. For SAB-180, 400, & 1200, select 5.
- F. For all clutches and brakes, refer to the product guide and specify 1 or 2. For manual release brakes, if a switch is desired, select 3, otherwise use a 1.

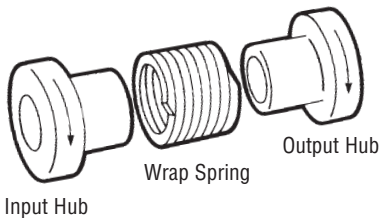
Example

SL11 clutch, 24 volts, 1/4" bore
 Part No. 0110-2311
 FSB050 brake, 90 volts, 3/8" bore, Hex drive
 Part No. 1706-1521

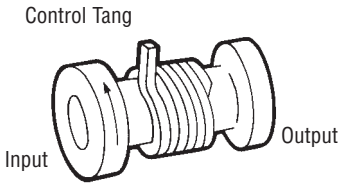
Model SC Clutch Descriptions

Principles of Operation

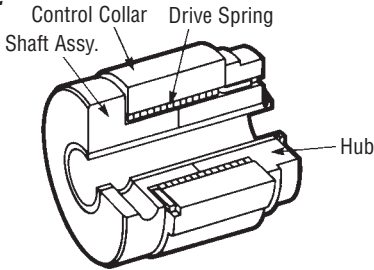
The three basic parts in the wrap spring clutch are the input hub, output hub, and spring. The inside diameter of the spring is slightly smaller than the outside diameter of the two hubs. Rotation at the input hub in the direction of the arrow engages the spring and positively locks the two hubs together.



Adding a control tang allows the spring to be disengaged, permitting the input hub to overrun.



SC

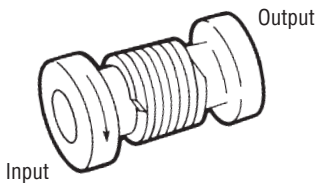


SC Series Clutch

SC clutches are mechanically actuated. They can be used in overrunning (OR), start/stop (SS) and single revolution (SR) applications.

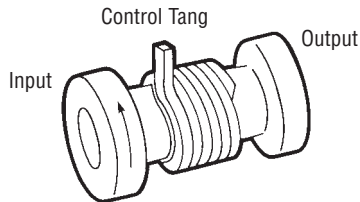
a.) SC Overrunning Clutch – OR

When the input hub is rotated in the direction shown, the spring wraps down and engages the input to the output hub. When the input hub is stopped or reversed, the spring unwraps, allowing the output hub to overrun. These clutches can also be used for backstopping and indexing. In the backstopping mode, either the input or output hub is attached to a fixed member, while the other hub is mounted on a rotating part. Rotation is permitted in one direction, but locked in reverse rotation. Indexing provides an accurate and smooth intermittent rotary output from reciprocating input in variable angular increments.



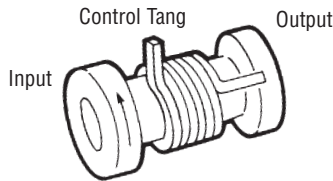
b.) SC Start/Stop Clutch – SS

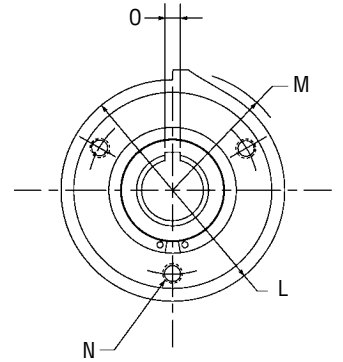
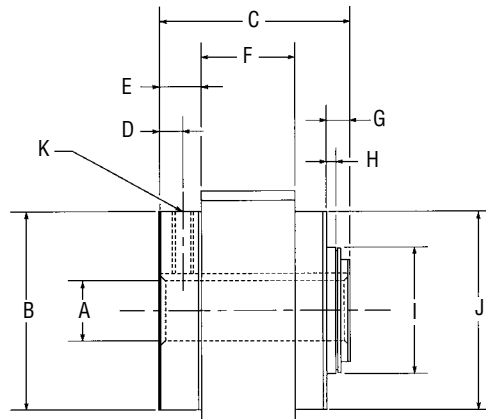
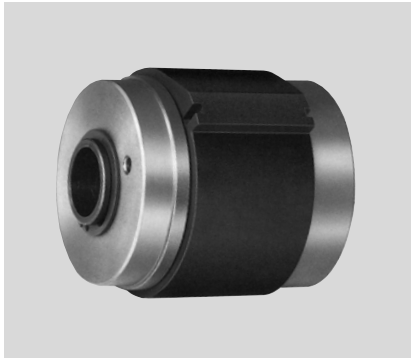
In this mode, the control tang rotates with the input hub, thus engaging the clutch. When the stop collar locks the control tang, the spring unwraps, allowing the output hub to coast while the input hub continues to run.



c.) SC Single Revolution Clutch – SR

In this mode, another control tang is added to the spring and fixed to the output hub. When the stop collar engages the control tang, the output hub will not overrun. Remember, only a maximum of 10% of the load will be stopped with the SC single revolution clutch.





SC Series Mechanical

MODEL NO.	STATIC TORQUE LB. - IN.	MAX. OPERATING SPEED (RPM)	MAX. RADIAL BEARING LOAD AT MAX. RPM
SC-2	25	1800	6.75 LB.
SC-4	125	1200	13.5 LB.
SC-5	250	750	31.5 LB.
SC-6	500	500	63.0 LB.
SC-8	2500	300	144.0 LB.

SC Series Dimensions

MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
SC-2	0.250	0.94	1.25	0.16	0.34	0.49	0.344	0.250	0.877	0.940	8-32 SS	1.00	0.54	-	-
SC-4	0.375	1.25	1.38	0.14	0.28	0.67	0.347	0.250	1.125	1.250	0.125 Pin Hole	1.31	0.72	-	-
SC-5	0.500	1.56	1.88	0.14	0.38	1.00	0.345	0.250	1.500	1.562	0.188 Pin Hole	1.56	0.85	-	-
SC-6	0.750	2.44	2.31	0.28	0.50	0.87	0.282	0.124	1.562 - 1.559	2.437	1/4 - 20 SS	2.70	1.50	3-Holes, 1/4-20 EQ. SP on 2.062 B.C.	3/4 Bore 3/16 x 3/32
	1.000	2.44	2.31	0.28	0.50	0.87	0.282	0.124	1.562 - 1.559	2.437	1/4 - 20 SS	2.70	1.50		1 Bore no Keyway
SC-8	1.000	4.00	3.50	0.30	0.60	1.98	0.463	0.180	2.374 - 2.372	4.000	3/8 - 16 SS	3.75	2.00	6-Holes, 5/16-18 EQ. SP on 3.375 B.C.	1 Bore 1/4 x 1/8
	1.250	4.00	3.50	0.30	0.60	1.98	0.463	0.180	2.374 - 2.372	4.000	3/8 - 16 SS	3.75	2.00		1-1/4 and 1-3/8 Bore 5/16 x 5/32
	1.375	4.00	3.50	0.30	0.60	1.98	0.463	0.180	2.374 - 2.372	4.000	3/8 - 16 SS	3.75	2.00		
	1.500	4.00	3.50	0.30	0.60	1.98	0.463	0.180	2.374 - 2.372	4.000	3/8 - 16 SS	3.75	2.00		1-1/2 Bore 3/8 x 3/16 Keyway

Note: Rotation is determined by looking at the pilot or free hub end.

How to Order:

3 - - - - - 0 - 0 0

INPUT TYPE
1=Hub
2=Shaft

BORE SIZE IN 1/8 INCHES
02=1/4 (.250)
03=3/8 (.375)
04=1/2 (.500)
06=3/4 (.750)
08=1 (1.000)
10=1-1/4 (1.250)
11=1-3/8 (1.375)
12=1-1/2 (1.500)

SIZE
02=2
04=4
05=5
06=6
08=8

OF STOPS
99=0
01=1
02=2
04=4

FEATURES
0=NONE

ROTATION
1=CW, SR
2=CCW, SR
3=CW, SS
4=CCW, SS
5=CW, OR
6=CCW, OR

SR units (Brake Torque is 10% of Maximum Torque).

Example

SC-6 clutch, hub input, 3/4" bore, 2 stops, clockwise single revolution.
Part No. 3106-0602-10-00