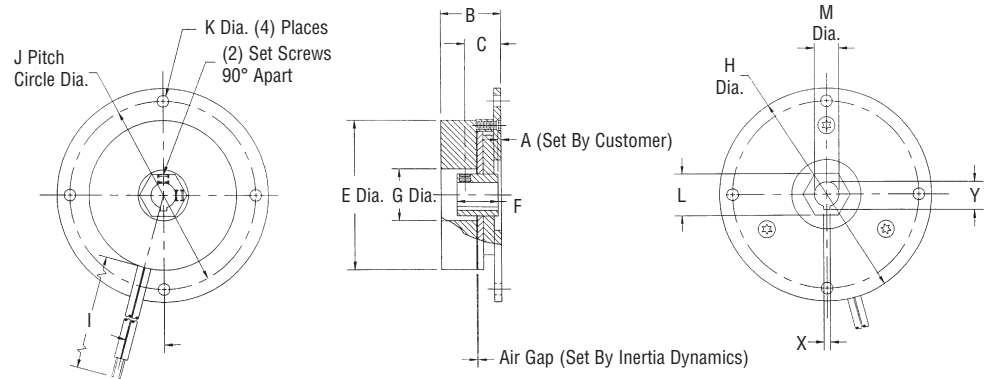


Inertia Dynamics type FSBR brakes are designed for applications requiring minimum space (short axial length) or for motors with short shaft extensions. When mounted, the armature hub is installed on the shaft first, then the brake is installed over the hub and attached to the motor.



**FSBR007 Shown**



## Mechanical

MODEL NO.	STATIC TORQUE LB. – IN.	INERTIA LB. – IN. <sup>2</sup> 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	3/8	.094 – .097	.417 – .427
													1/2	.125 – .128	.560 – .567
													5/8	.1885 – .1905	.709 – .716
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.

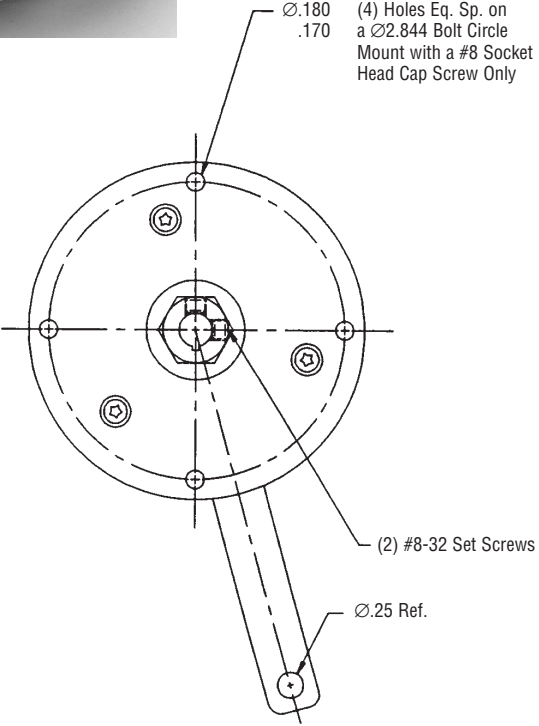
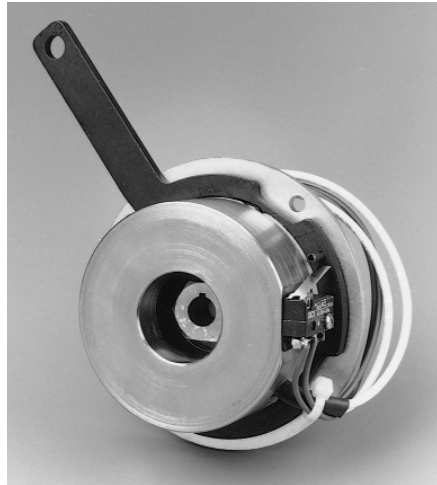
**See page 3 for ordering information**

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 <sup>5</sup> / <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	<sup>1</sup> / <sub>32</sub> X <sup>1</sup> / <sub>16</sub>
.3755 – .3770 <sup>3</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	<sup>3</sup> / <sub>64</sub> X <sup>3</sup> / <sub>32</sub>
.5005 – .5020 <sup>1</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>16</sub> X <sup>1</sup> / <sub>8</sub>

## 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:

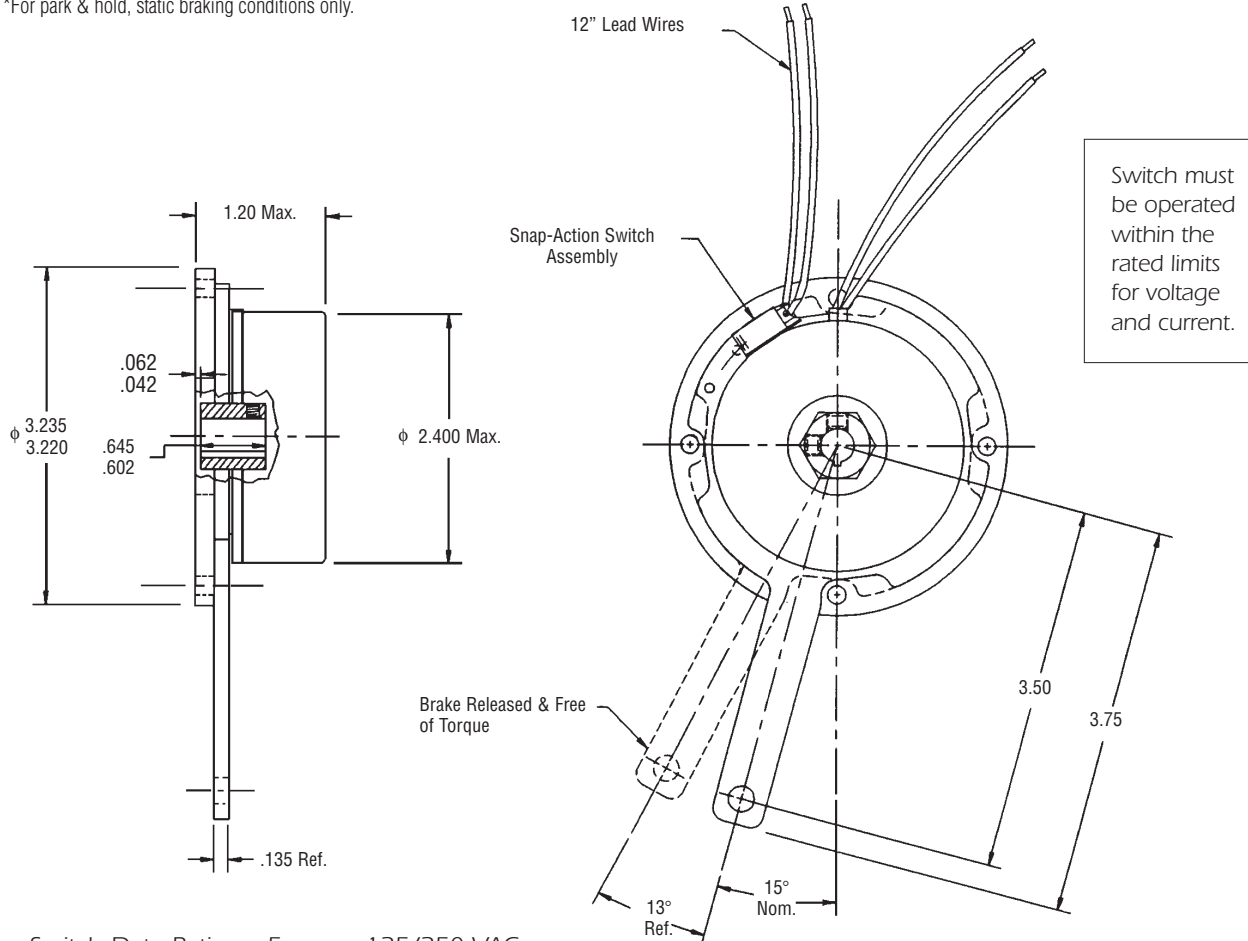
- Coil lead data: 22 AWG, 7/30 stranded, 105°C, 600V, UL, style 1430, insulation is .064" O.D.

## Mechanical

	DYNAMIC STYLE	STATIC* STYLE	INERTIA (LB.-IN. <sup>2</sup> ) 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.

**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