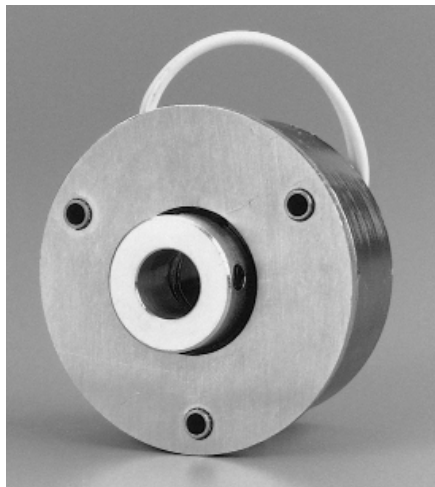


# Spring Applied Friction Brakes

## Flange Mounted Spring Applied Brakes – Type FSB



**FSB001 Shown**

## FSB SERIES SPRING APPLIED BRAKES

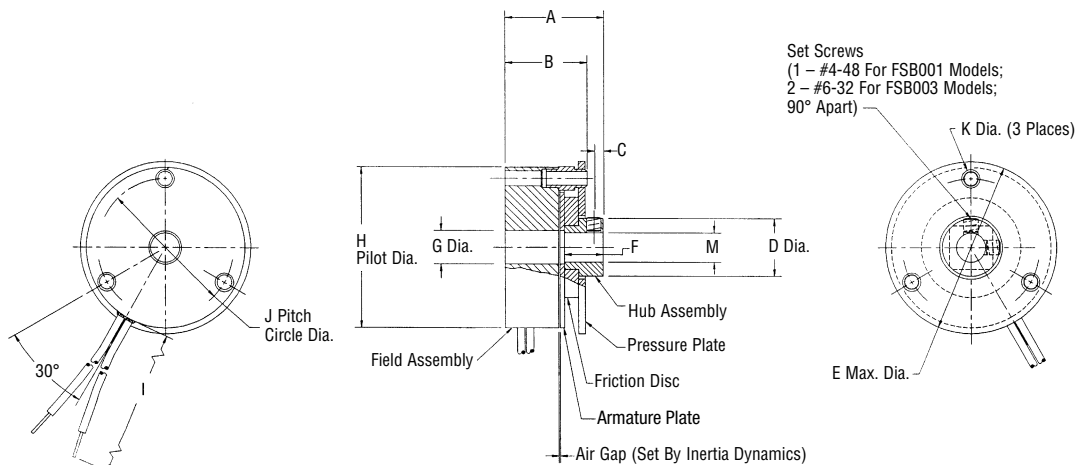
### Flange Mounted Spring Applied Brakes – Type FSB

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.

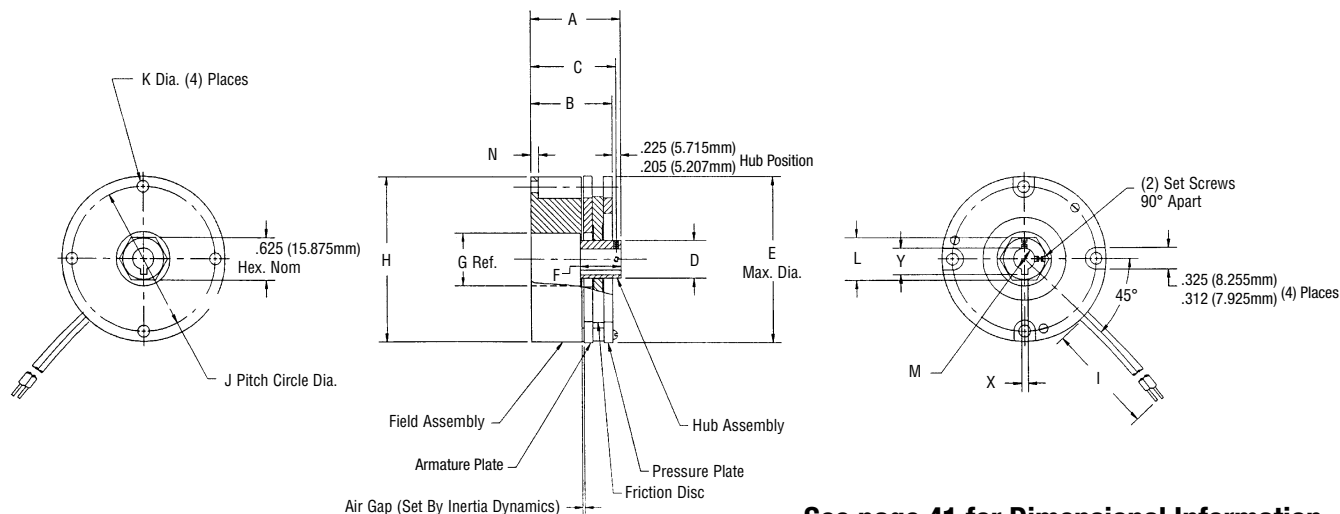
#### Customer Shall Maintain:

The perpendicularity of the mounting surface with respect to the shaft not to exceed .005 inch (0.127 mm) 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 (0.508 mm) T.I.R. for sizes 035-100. Refer to instruction manual #040-10110.

### Model FSB001 or FSB003 - Square Drive



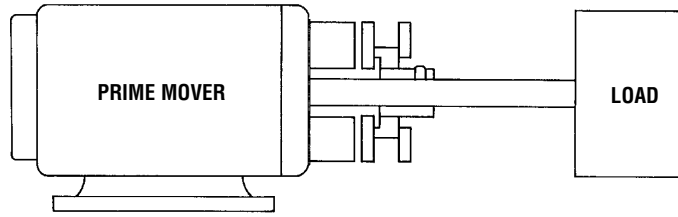
### Model FSB007 or FSB015 - Hex Drive



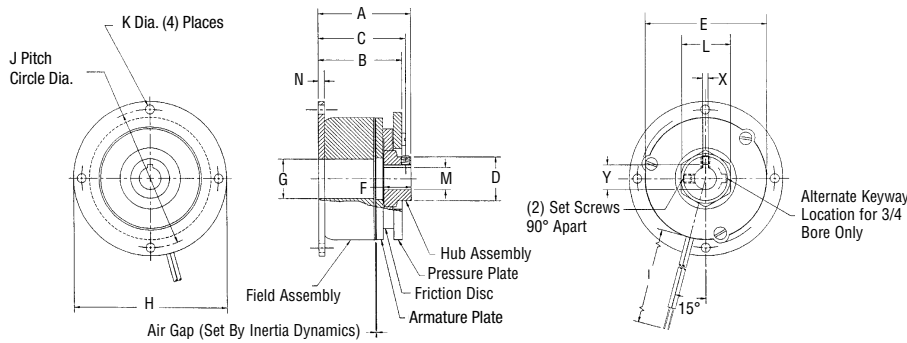
**See page 41 for Dimensional Information**

# Spring Applied Friction Brakes

## Flange Mounted Spring Applied Brakes – Type FSB

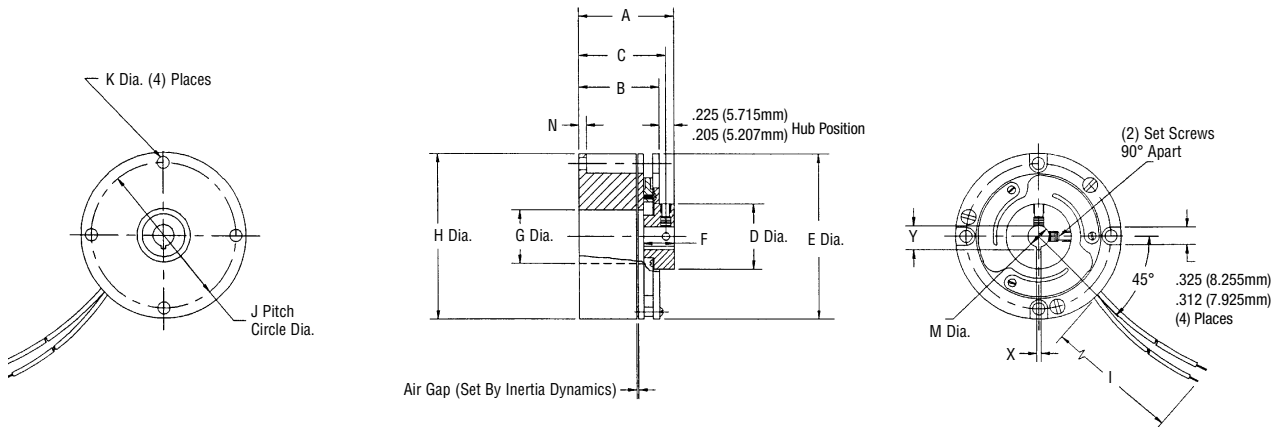


### Model FSB035, FSB050, or FSB100 - Hex Drive

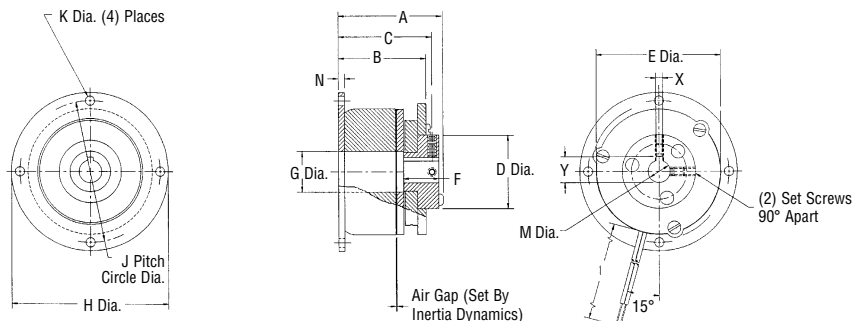


**FSB007 Shown**

### Model FSB007 or FSB015 – Zero Backlash



### Model FSB035, FSB050



**FSB035 Shown**

See page 41 for Dimensional Information

# Spring Applied Friction Brakes

## Flange Mounted Spring Applied Brakes – Type FSB Imperial

### Mechanical

MODEL NO.	STATIC TORQUE LB. - IN.	INERTIA LB. - IN. <sup>2</sup> ARMATURE & HUB ASSEMBLY		WEIGHT 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 & KEYWAY		
															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 .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	11/8	.142	3/8 1/2 5/8 3/4	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .719 .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	11/8	.142	3/8 1/2 5/8 3/4	.094 – .097 .125 – .128 .1885 – .1905 .1885 – .1905	.417 – .427 .560 – .567 .709 – .719 .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	11/2	.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 armature 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 armature and pressure plate.

**See page 29 for Ordering Information**

## Flange Mounted Spring Applied Brakes – Type FSB Metric

### Mechanical

MODEL NO.	STATIC TORQUE N-m	INERTIA kg-cm <sup>2</sup> ARMATURE & HUB ASSEMBLY		WEIGHT kg
		SQUARE OR HEX DRIVE	ZERO BACKLASH	
FSB001	.113	.0012	N.A.	.06
FSB003	.339	.0050	N.A.	.09
FSB007	.791	.0389	.0515	.43
FSB015	1.69	.0389	.0515	.45
FSB035	3.95	.2458	.5071	.94
FSB050	5.65	.2458	.5071	1.0
FSB100	11.3	.5999	N.A.	1.8

### 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	.064	2177	.190	132	.353	34	.048	N.A.
FSB007	.059	1520	.247	97.3	.481	25	.045	N.A.
FSB015	.098	922	.369	65.1	.719	16.7	.071	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 1.63 mm O.D. on 001 & 003 units; 2.41 mm 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 ± 12.7	J NOM.	K MIN.	L NOM.	N MAX.	M BORES & KEYWAY		
															BORE	NOMINAL KEYWAY	
																X	Y
FSB001	Square Drive	22.606	18.034	1.829	12.594	37.719	8.128	7.112	34.925	304.800	29.972	2.870	9.525	N.A.	5H9 6H9	SET SCREWS ONLY	
FSB003	Square Drive	26.924	22.098	2.921	19.177	48.514	9.652	10.414	44.501	304.800	39.243	2.870	14.288	N.A.	6H9 8H9	SET SCREWS ONLY	
FSB007	Hex Drive	35.560	30.480	36.877	18.339	62.611	15.367	19.837	61.874	304.800	53.975	4.369	15.875	3.048	6H9 8H9	1.988-2.060 1.988-2.060	7.00-7.10 9.00-9.10
	Zero Backlash	35.560	30.480	31.877	24.257	62.611	11.430	19.837	61.874	304.800	53.975	4.369	N.A.	—			
FSB015	Hex Drive	35.560	30.480	31.877	18.339	62.611	15.367	19.837	61.874	304.800	53.975	4.369	15.875	3.048	6H9 8H9	1.988-2.060 1.988-2.060	7.00-7.10 9.00-9.10
	Zero Backlash	35.560	30.480	31.039	24.257	62.611	11.430	19.837	61.874	304.800	53.975	4.569	N.A.	—			
FSB035	Hex Drive	53.594	48.768	49.784	25.400	76.454	14.732	22.631	88.900	457.200	79.375	5.080	28.575	3.607	10H9 15H9	2.988-3.060 4.985-5.078	11.40-11.50 17.30-17.40
	Zero Backlash	56.642	48.641	50.749	41.275	76.454	18.542	22.631	88.900	457.200	79.375	5.080	N.A.	—			
FSB050	Hex Drive	53.594	48.768	49.784	25.400	76.454	14.732	22.631	88.900	457.200	79.375	5.080	28.575	3.607	10H9 15H9 17H9	2.988-3.060 4.985-5.078 4.985-5.078	11.40-11.50 17.30-17.40 19.30-19.40
	Zero Backlash	56.642	48.641	50.749	41.275	76.454	18.542	22.631	88.900	457.200	79.375	5.080	N.A.	—			
FSB100	Hex Drive	58.928	52.832	53.340	24.765	101.600	14.097	30.175	133.350	457.200	120.65	5.486	38.100	5.334	15H9	4.985-5.078	17.30-17.40

### Notes:

#### Hex Drive – FSB

- For sizes 001 and 003, position hub .254-.508 mm back from friction disc with coil de-energized.
- For sizes 007 and larger, position hub .254-.762 mm back from clapper plate with coil de-energized.
- Dimension "C" is the centerline of the set screw(s) in the hub.

#### Zero Backlash – FSB

- Position hub to run freely with coil energized taking care to center the friction disc between the clapper and pressure plate.
- Dimension "C" is the centerline of the set screw(s) in the hub.

See page 29 for Ordering Information