

BSB SERIES



For ordering information
see page A-7.

U.S. Patent #5,185,542

Patented **PULSE OPERATED BI-STABLE BRAKES**

FEATURES:

- Pulse operated
- Cost efficient
- New hi-temp friction material
- Hex drive hubs
- Zero backlash hubs available
- No heat build-up
- Mil spec versions available

APPLICATIONS

Any battery powered or low current supply application requiring a brake, such as:

- AGV's
- Wheel chairs
- Robots
- Aircraft Actuators
- Missile Systems
- Satellites
- Electric forklifts
- Battery-powered vehicles

The latest in product development and invention at ELECTROID, is its new BI-STABLE BRAKE – the most efficient electromagnetic brake available in today's market.

The new BI-STABLE brake is the simple solution to the complex problem of heat and power conservation. Its patented design was originally conceived for the robot arm aboard the Space Shuttle, where power constraints virtually mandated its development.

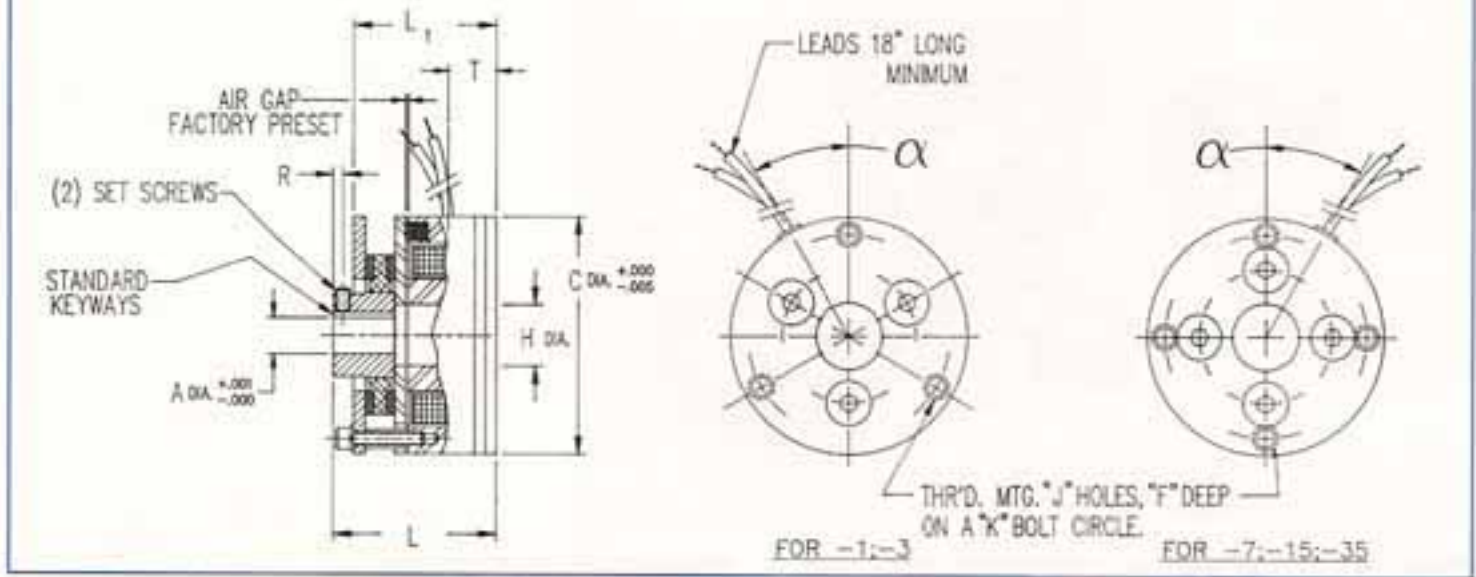
The BSB Series requires NO CURRENT to maintain either of its two extreme positions: ON or OFF.

A 100 millisecond DC current pulse is all that is required to switch the device from OFF to ON. Reversing the polarity of the pulse will reset the device.

The BSB Series is also available with an optional "position feedback" sensor to sense the status of the brake. Additional circuitry is available to trigger the brake during power failures for true failsafe operation. Consult factory for details.

The new BI-STABLE brake by Electroid is the simple solution to the complex problem of heat and power conservation.

BSB-1, 3, 7, 15, 35.



MODEL #	A DIA.	C DIA.	H DIA.	J	F	K	L	L ₁	T	R	α
BSB-1	.125 ø .187 .250	1.375	.280	4-48 UNF	.10	1.180 B.C.	1.12	.98	.40	.09	30°
BSB-3	.187 ø .250 .375	1.750	.410	4-40 UNC	.15	1.545 B.C.	1.35	1.15	.43	.11	30°
BSB-7	.250 ø .375 .500	2.440	.627 .625	8-32 UNC	.15	2.125 B.C.	1.67	1.47	.49	.13	30°
BSB-15	.250 ø .375 .500	2.440	.627 .625	8-32 UNC	.30	2.125 B.C.	1.85	1.65	.68	.13	30°
BSB-35	.500 ø .625 .750	3.500	1.000 .998	10-24 UNC	.30	3.125 B.C.	2.64	2.36	.93	.18	45°

NOTES:

1. Attachment of armature hub is secured by key (where noted) and two set screws.
2. Maximum rated speed 7500 RPM.
3. 90 & 24/28 Volt DC are standard. Built-in rectifiers for direct A.C. use, other voltages available upon request.
4. These models are also available with ZERO BACKLASH spring release armature assemblies. Consult ELECTROID for details.

MODEL #	MECHANICAL				ELECTRICAL		
	RATED STATIC TORQUE (IN.-LBS.)	UNIT WEIGHT (LBS.)	INERTIA OF ROTATING ARMATURE (LBS.-IN. ²)	RESPONSE TIME (MILLI-SEC.)	COIL #	RATED VOLTAGE (V.D.C.)	CURRENT (AMPERES)
BSB-1	.75	.4	.001	25	1	90	.10
					2	24/28	.50
BSB-3	2.5	.7	.004	35	1	90	.15
					2	24/28	.70
BSB-7	7	1.8	.012	45	1	90	1.20
					2	24/28	1.25
BSB-15	15	2.0	.012	45	1	90	2.5
					2	24/28	3.0
BSB-35	35		.127	95	1	90	2.5
					2	24/28	3.0