

RNB

S E R I E S

ELECTROMAGNETIC SPRING-APPLIED BRAKE

Torque Range: 1.5 ~ 148 ft-lbs

Torque Range: 2 ~ 200 N-m



FEATURES

COMPACT DESIGN WITH HIGH TORQUE

The RNB series brakes are approximately one-half the width of MNB style.

BASIC DESIGN ADVANTAGE

The RNB series brake is designed for holding and emergency braking.

MANUAL RELEASE HOLES

Starting with SNB series 1.2 and RNB series 3 and higher all units have three tapped holes in which screws can be inserted for manually releasing the brake in case of emergency.

FAST RESPONSE TIME

These brakes are spring-set type brakes, providing rapid torque buildup.

OPERATING VOLTAGE OPTIONS

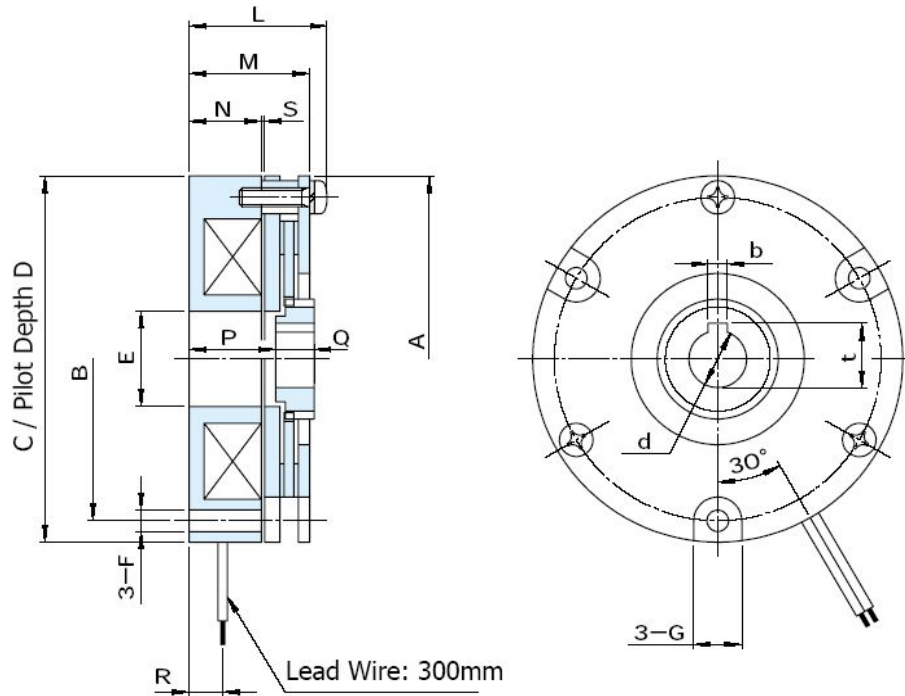
RNB units come in two standard voltages, 90VDC and 24VDC. Other non-standard voltages are available.

OPTIONAL ZERO BACKLASH DESIGN (RNB-Z)

Thin disks in the RNB-Z produce low inertia. A zero backlash design also eliminates any noise due to rattling.



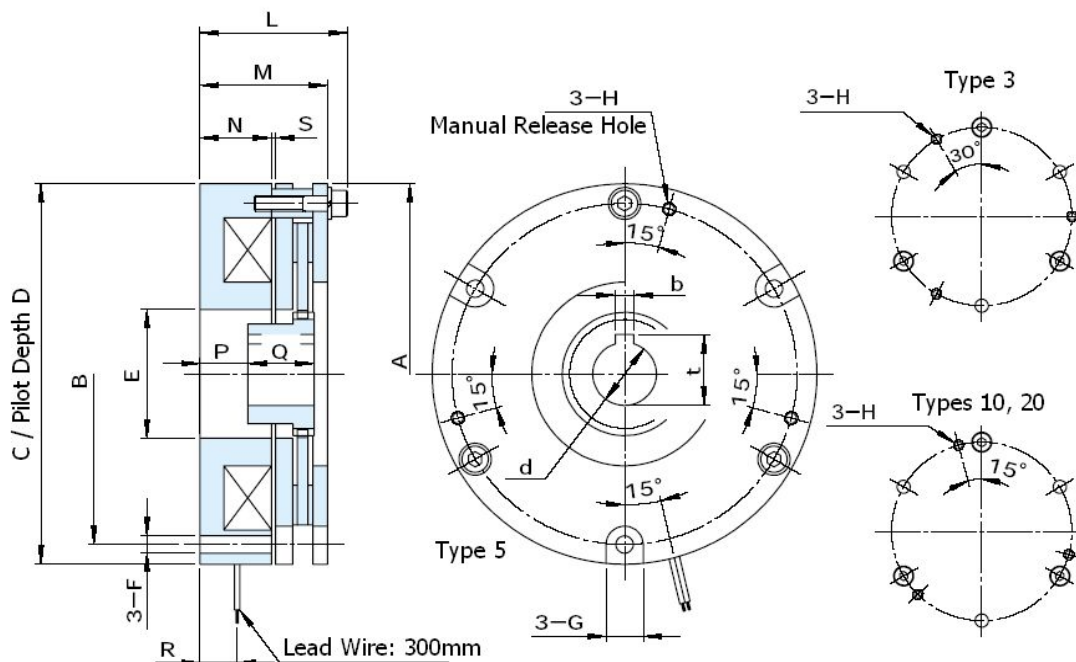
RNB



RNB ¹		0.2G	0.2K	0.4G	0.4K	0.8G	0.8K	1.6G	1.6K
Static Torque [ft-lbs / N-m]		1.5 / 2		3 / 4		5.9 / 8		12 / 16	
Coil (20°C)	Voltage [DC-V]	24	90	24	90	24	90	24	90
	Current [A]	0.41	0.11	0.54	0.14	0.63	0.17	0.76	0.2
	Resistance [Ω]	59	815	45	630	38	540	32	445
	Wattage [W]	10		13		15		18	
Armature	Pull-In Time [ms]	35		45		55		70	
	Release Time [ms]	12		12		15		25	
Max Allowable Speed [rpm]		5000		4000		4000		3500	
Moment of Inertia (J) [kg-cm ²]		0.185		0.325		0.675		2.85	
Bore [mm]	dH7	12		12		14		19	
Key Way [mm]	bE9	4		4		5		5	
	t+0.15/-0	13.5		13.5		16		21	
Dimensions [mm]	A	77		85		97		117	
	B	68		74		85		108	
	Ch9	77		85		97		117	
	D	3		4		4		4	
	E	20		20		25		40	
	F	4.5		5.5		5.5		5.5	
	G	10		11		11		11	
	L	30		32		35		41	
	M	25.5		27.5		29.5		34.5	
	N	15		16		17		19.5	
	P	18		16		14		15	
	Q	8		12		16		20	
R	7		7.5		8.5		8.5		
S	0.15~0.3		0.15~0.3		0.15~0.3		0.15~0.3		
Weight [lbs / kg]		1.3 / 0.6		1.9 / 0.9		2.6 / 1.2		4.2 / 1.9	

[Note 1 : For holding and emergency-stop applications only]

[1 inch = 25.4 mm]



RNB ¹		3G	3K	5G	5K	10G	10K	20G	20K
Static Torque [ft-lbs / N-m]		22 / 30		37 / 50		74 / 100		148 / 200	
Coil (20°C)	Voltage [DC-V]	24	90	24	90	24	90	24	90
	Current [A]	0.96	0.25	1.13	0.3	1.37	0.37	1.88	0.5
	Resistance [Ω]	25	358	21	300	17.5	245	12.8	180
	Wattage [W]	23		27		33		45	
Armature	Pull-In Time [ms]	100		120		180		250	
	Release Time [ms]	35		50		65		90	
Max Allowable Speed [rpm]		3500		3000		3000		2500	
Moment of Inertia (J) [kg-cm ²]		3		5.75		13		21	
Bore [mm]	dH7	19		24		28		32	
Key Way [mm]	bE9	5		7		7		10	
	t+0.15/-0	21		27		31		35.5	
Dimensions [mm]	A	125		145		165		187	
	B	112		130		150		170	
	Ch9	125		145		165		187	
	D	4		5		5		6	
	E	49		49		62		62	
	F	6.6		6.6		9		9	
	G	14		14		18		18	
	H	M5		M5		M6		M6	
	L	53.5		56.5		71		81	
	M	46		49		61		71	
	N	26		27		32		37	
	P	16		18		22		21	
	Q	25		25		30		40	
R	11		14		17		21		
S	0.15~0.3		0.15~0.3		0.15~0.3		0.2~0.35		
Weight [lbs / kg]		7.9 / 3.6		11 / 5		17 / 8		27 / 12	

[Note 1 : For holding and emergency-stop applications only]

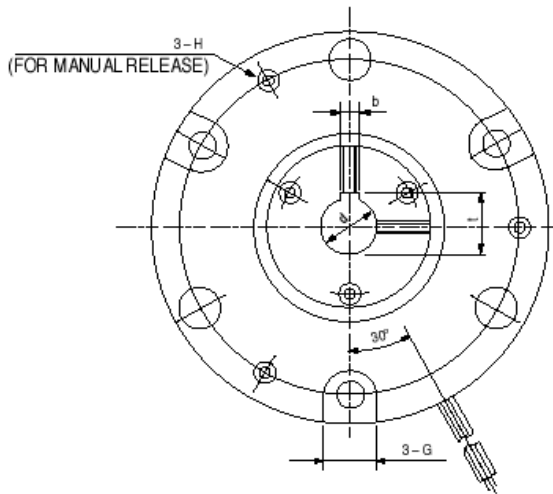
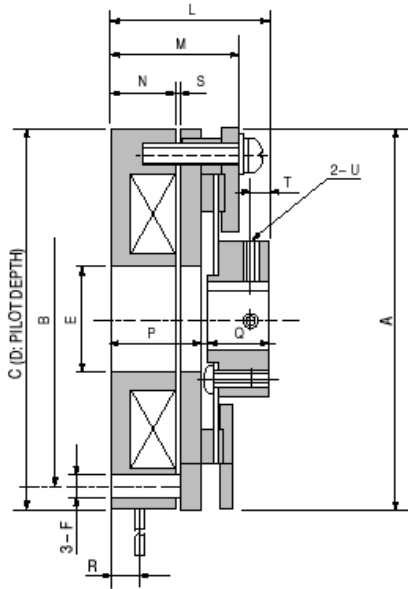
[1 inch = 25.4 mm]

RNB-Z

EM Spring-Applied Brake

Types: 0.2, 0.4, 0.8, 1.6

[EM: Electromagnet]



RNB ¹		0.2ZG	0.2ZK	0.4ZG	0.4ZK	0.8ZG	0.8ZK	1.6ZG	1.6ZK
Static Torque [ft-lbs / N-m]		1.5 / 2		3 / 4		5.9 / 8		12 / 16	
Coil (20°C)	Voltage [DC-V]	24	90	24	90	24	90	24	90
	Current [A]	0.41	0.11	0.54	0.14	0.63	0.17	0.76	0.2
	Resistance [Ω]	59	815	45	630	38	540	32	445
	Wattage [W]	10		13		15		18	
Armature	Pull-In Time [ms]	35		45		55		70	
	Release Time [ms]	12		12		15		25	
Max Allowable Speed [rpm]		5000		4000		4000		3500	
Moment of Inertia (J) [kg-cm ²]		0.16		0.23		0.45		0.7	
Bore [mm]	dH7	12		12		14		15	
Key Way [mm]	bE9	4		4		5		5	
	t+0.15/-0	13.5		13.5		16		17	
Dimensions [mm]	A	77		85		97		117	
	B	68		74		85		108	
	Ch9	77		85		97		117	
	D	3		4		4		4	
	E	20		20		25		40	
	F	4.5		5.5		5.5		5.5	
	G	10		11		11		11	
	H	-		-		M4		M5	
	L	33		39		38.3		45.3	
	M	26		28		30		31.5	
	N	15		16		17		19.5	
	P	21		22		23.3		25.3	
	Q	12		17		15		20	
	R	7		7.5		8.5		8.5	
S	0.15~0.25		0.2~0.3		0.2~0.35		0.2~0.35		
T	4		4.5		4.5		5		
U	2xM4		2xM4		2xM5		2xM5		
Weight [lbs / kg]		1.3 / 0.6		1.9 / 0.9		2.6 / 1.2		4.2 / 1.9	

[Note 1 : For holding and emergency-stop applications only]

[1 inch = 25.4 mm]

RNB-Z: TYPICAL INSTALLATION

