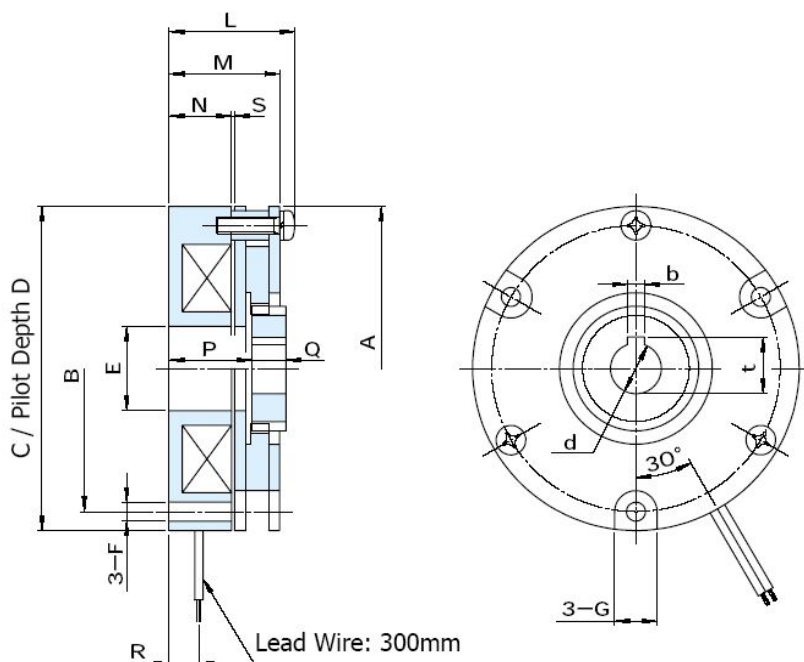
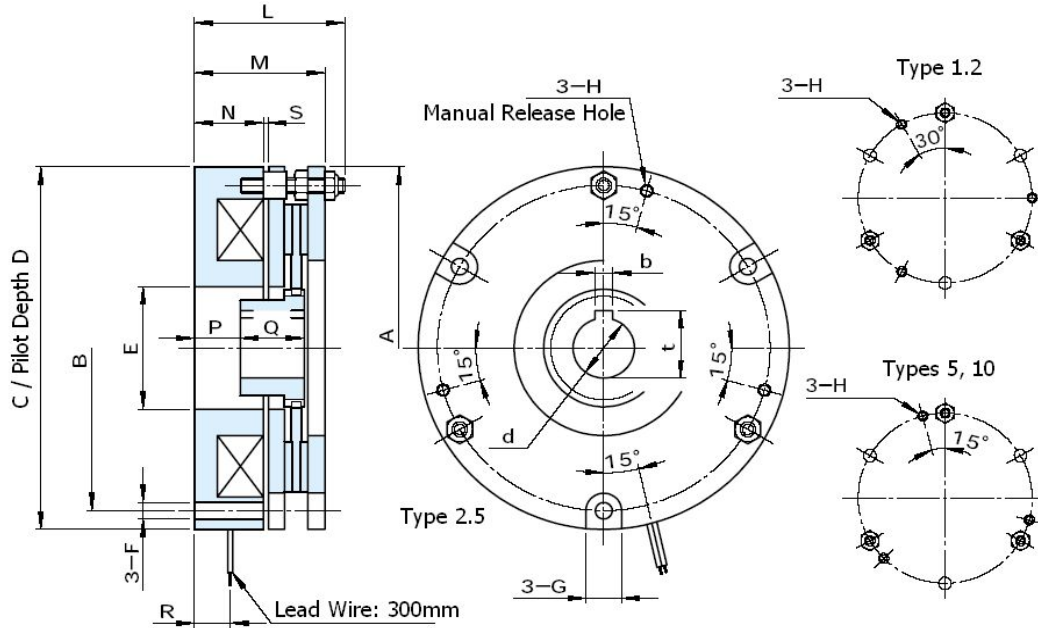




| SNB                                         |                   | 0.1G                  | 0.1K | 0.2G                  | 0.2K | 0.4G                  | 0.4K | 0.8G                  | 0.8K |
|---------------------------------------------|-------------------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|
| Static Torque [ft-lbs / N-m]                |                   | 0.7 / 1               |      | 1.5 / 2               |      | 3 / 4                 |      | 5.9 / 8               |      |
| Coil<br>(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] | 25                    |      | 30                    |      | 40                    |      | 55                    |      |
|                                             | Release Time [ms] | 15                    |      | 15                    |      | 20                    |      | 35                    |      |
| Max Allowable Speed [rpm]                   |                   | 5000                  |      | 4000                  |      | 4000                  |      | 3500                  |      |
| Max Brake Power [W]                         |                   | 33                    |      | 41                    |      | 57                    |      | 98                    |      |
| Moment of Inertia (J) [kg-cm <sup>2</sup> ] |                   | 0.16                  |      | 0.28                  |      | 0.43                  |      | 1.22                  |      |
| Max Air Gap Until Adjustmnet [mm]           |                   | 0.55                  |      | 0.55                  |      | 0.6                   |      | 0.6                   |      |
| Max Energy Until Life [J]                   |                   | 1.6 x 10 <sup>7</sup> |      | 1.9 x 10 <sup>7</sup> |      | 3.0 x 10 <sup>7</sup> |      | 5.6 x 10 <sup>7</sup> |      |
| Max Work Rate [W]                           |                   | 33                    |      | 47                    |      | 57                    |      | 98                    |      |
| Bore [mm]                                   |                   | dH7                   |      | 12                    |      | 14                    |      | 19                    |      |
| Key Way [mm]                                | bE9               | 4                     |      | 4                     |      | 5                     |      | 5                     |      |
|                                             | t+0.15/-0         | 13.5                  |      | 13.5                  |      | 16                    |      | 21                    |      |
| Dimensions<br>[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                 | 26                    |      | 28                    |      | 30                    |      | 35                    |      |
|                                             | N                 | 15                    |      | 16                    |      | 17                    |      | 19.5                  |      |
|                                             | P                 | 19.5                  |      | 21                    |      | 22                    |      | 25.5                  |      |
|                                             | Q                 | 8                     |      | 8                     |      | 8                     |      | 10                    |      |
|                                             | R                 | 7                     |      | 7.5                   |      | 8.5                   |      | 8.5                   |      |
|                                             | S                 | 0.1~0.25              |      | 0.1~0.25              |      | 0.1~0.25              |      | 0.1~0.25              |      |
| Weight [lbs / kg]                           |                   | 1.2 / 0.5             |      | 1.8 / 0.8             |      | 2.4 / 1.1             |      | 4.0 / 1.8             |      |

[ 1 inch = 25.4 mm ]

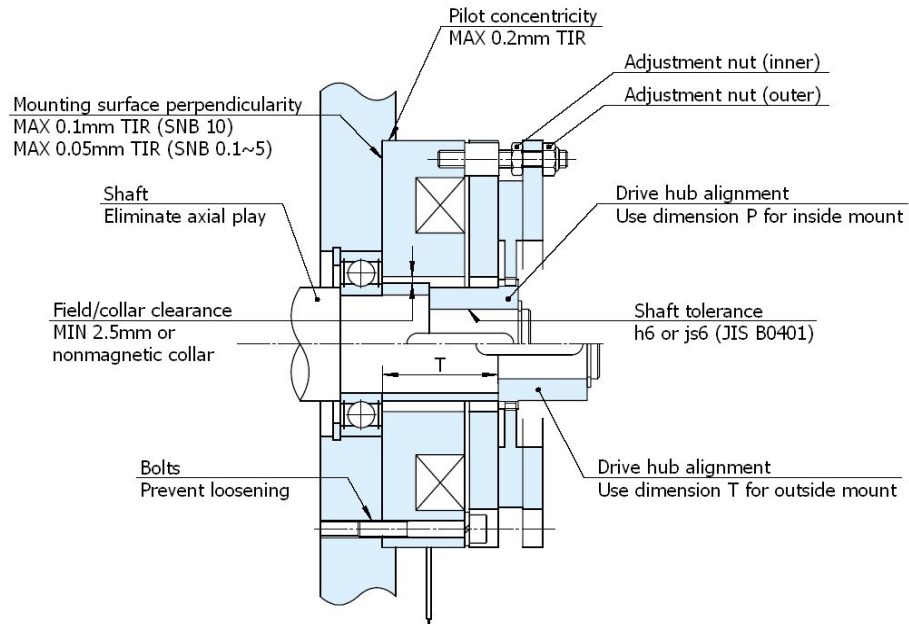


| SNB                                         |                   | 1.2G                  | 1.2K | 2.5G                  | 2.5K | 5G                    | 5K   | 10G                   | 10K |
|---------------------------------------------|-------------------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|-----|
| Static Torque [ft-lbs / N-m]                |                   | 8.9 / 12              |      | 18 / 25               |      | 37 / 50               |      | 74 / 100              |     |
| Coil<br>(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] | 70                    |      | 90                    |      | 135                   |      | 200                   |     |
|                                             | Release Time [ms] | 40                    |      | 60                    |      | 80                    |      | 110                   |     |
| Max Allowable Speed [rpm]                   |                   | 3500                  |      | 3000                  |      | 3000                  |      | 2500                  |     |
| Max Brake Power [W]                         |                   | 98                    |      | 114                   |      | 155                   |      | 212                   |     |
| Moment of Inertia (J) [kg-cm <sup>2</sup> ] |                   | 3                     |      | 6                     |      | 14.5                  |      | 25                    |     |
| Max Air Gap Until Adjustmnet [mm]           |                   | 0.65                  |      | 0.65                  |      | 0.7                   |      | 0.8                   |     |
| Max Energy Until Adjustment [J]             |                   | 5.5 × 10 <sup>7</sup> |      | 7.7 × 10 <sup>7</sup> |      | 9.1 × 10 <sup>7</sup> |      | 1.6 × 10 <sup>8</sup> |     |
| Max Energy Until Life [J]                   |                   | 2.0 × 10 <sup>8</sup> |      | 3.4 × 10 <sup>8</sup> |      | 4.8 × 10 <sup>8</sup> |      | 7.9 × 10 <sup>8</sup> |     |
| Max Work Rate [W]                           |                   | 98                    |      | 114                   |      | 155                   |      | 212                   |     |
| Bore [mm]                                   | dH7               | 19                    |      | 24                    |      | 28                    |      | 32                    |     |
|                                             | bE9               | 5                     |      | 7                     |      | 7                     |      | 10                    |     |
|                                             | t+0.15/-0         | 21                    |      | 27                    |      | 31                    |      | 35.5                  |     |
| Dimensions<br>[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                 | 54                    |      | 59                    |      | 71                    |      | 83                    |     |
|                                             | M                 | 46                    |      | 51                    |      | 61                    |      | 72                    |     |
|                                             | 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]                           |                   | 7.7 / 3.5             |      | 11 / 5                |      | 17 / 8                |      | 28 / 13               |     |

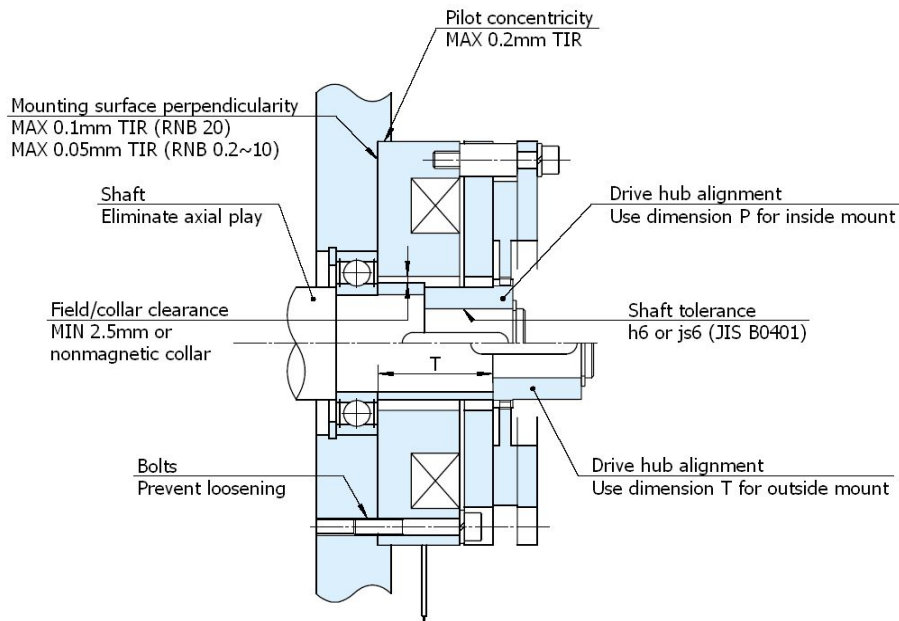
[ 1 inch = 25.4 mm ]

## SNB & RNB: TYPICAL INSTALLATION

SNB Brake



RNB Brake



|        | SNB1.2 | SNB2.5 | SNB5 | SNB10 | RNB0.2 | RNB0.4 | RNB0.8 | RNB1.6 | RNB3 | RNB5 | RNB10 | RNB20 |
|--------|--------|--------|------|-------|--------|--------|--------|--------|------|------|-------|-------|
| T [mm] | 33     | 35     | 43   | 52    | 20     | 21     | 22     | 25     | 33   | 35   | 43    | 52    |