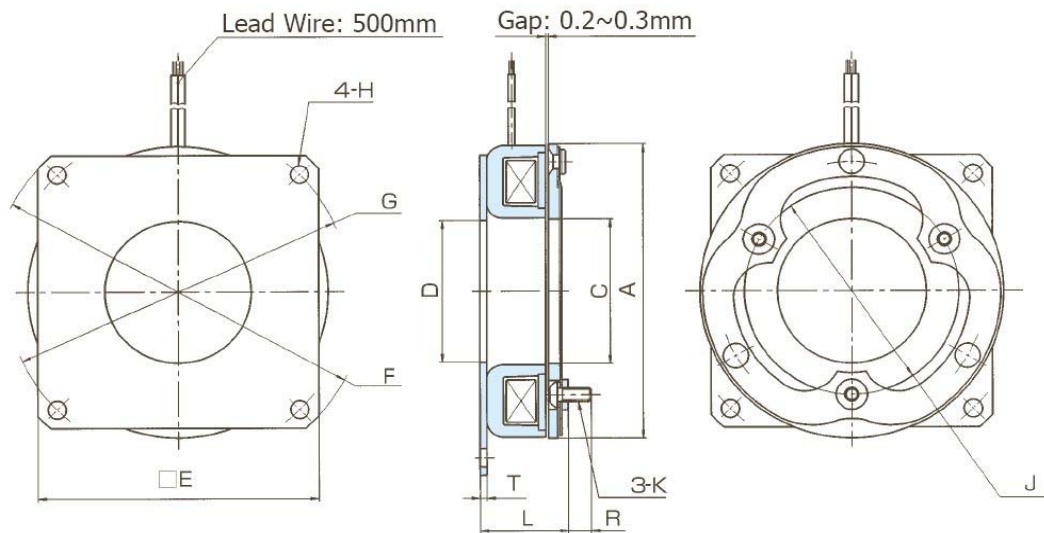




| VBE / VBS<br>Type                           |                   | [ Special ]           |                  | [ Special ]           |                  | [ Special ]          |                  | [ Special ]          |                  |                       |                       |
|---------------------------------------------|-------------------|-----------------------|------------------|-----------------------|------------------|----------------------|------------------|----------------------|------------------|-----------------------|-----------------------|
|                                             |                   | 0.6                   |                  | 1.2                   |                  | 2.5                  |                  | 5                    |                  | 10                    | 20                    |
|                                             |                   | VBE                   | VBS <sup>1</sup> | VBE                   | VBS <sup>1</sup> | VBE                  | VBS <sup>1</sup> | VBE                  | VBS <sup>1</sup> | VBE                   | VBE                   |
| Static Torque [ft-lbs / N-m]                |                   | 4.4 / 6               |                  | 8.9 / 12              |                  | 18 / 25              |                  | 37 / 50              |                  | 74 / 100              | 148 / 200             |
| Coil<br>(20°C)                              | Voltage [DC-V]    | 24                    |                  |                       |                  |                      |                  |                      |                  |                       |                       |
|                                             | Current [A]       | 0.5                   |                  | 0.62                  |                  | 0.92                 |                  | 1.41                 |                  | 1.6                   | 2.2                   |
|                                             | Resistance [Ω]    | 48                    |                  | 39                    |                  | 26                   |                  | 17                   |                  | 15                    | 11                    |
|                                             | Wattage [W]       | 12                    |                  | 15                    |                  | 22                   |                  | 33                   |                  | 38                    | 53                    |
| Armature                                    | Pull-In Time [ms] | 10                    |                  | 15                    |                  | 20                   |                  | 25                   |                  | 40                    | 55                    |
|                                             | Release Time [ms] | 20                    |                  | 30                    |                  | 50                   |                  | 70                   |                  | 35                    | 62                    |
| Torque Build-Up Time [ms]                   |                   | 40                    |                  | 45                    |                  | 60                   |                  | 65                   |                  | 78                    | 95                    |
| Max Allowable Speed [rpm]                   |                   | 7000                  |                  | 6000                  |                  | 5500                 |                  | 4500                 |                  | 3600                  | 3000                  |
| Moment of Inertia (J) [kg-cm <sup>2</sup> ] |                   | 0.5                   | 0.5              | 1.5                   | 1.6              | 4.8                  | 5.1              | 14.3                 | 15.1             | 45                    | 136                   |
| Max Air Gap Until Adjustment [mm]           |                   | 0.5                   |                  | 0.6                   |                  | 0.7                  |                  | 0.8                  |                  | 1.2                   | 1.5                   |
| Total Energy Until Adjustment [J]           |                   | 2.9 x 10 <sup>7</sup> |                  | 6.6 x 10 <sup>7</sup> |                  | 13 x 10 <sup>7</sup> |                  | 26 x 10 <sup>7</sup> |                  | 62 x 10 <sup>7</sup>  | 120 x 10 <sup>7</sup> |
| Total Energy Until Life [J]                 |                   | 13 x 10 <sup>7</sup>  |                  | 25 x 10 <sup>7</sup>  |                  | 49 x 10 <sup>7</sup> |                  | 88 x 10 <sup>7</sup> |                  | 170 x 10 <sup>7</sup> | 320 x 10 <sup>7</sup> |
| Dimensions<br>[mm]                          | A                 | 67                    |                  | 86                    |                  | 108                  |                  | 136                  |                  | 170                   | 215                   |
|                                             | C                 | 35                    |                  | 45                    |                  | 53                   |                  | 66                   |                  | 83                    | 107                   |
|                                             | D+0.2/-0          | 35                    |                  | 45                    |                  | 52                   |                  | 65                   |                  | 80                    | 107                   |
|                                             | E                 | 62                    |                  | 82                    |                  | 100                  |                  | 125                  |                  | 156                   | 200                   |
|                                             | F+0/-0.2          | 85                    |                  | 110                   |                  | 135                  |                  | 165                  |                  | 210                   | 265                   |
|                                             | G                 | 75                    |                  | 98                    |                  | 122                  |                  | 150                  |                  | 190                   | 240                   |
|                                             | H                 | 4.5                   |                  | 5.5                   |                  | 6.5                  |                  | 6.5                  |                  | 8.5                   | 11                    |
|                                             | J                 | 46                    |                  | 60                    |                  | 76                   |                  | 95                   |                  | 120                   | 158                   |
|                                             | K                 | M3                    |                  | M4                    |                  | M5                   |                  | M6                   |                  | M8                    | M10                   |
|                                             | L                 | 24.5                  | 25               | 27.5                  | 28               | 31.5                 | 32.4             | 35                   | 36               | 40                    | 47.5                  |
|                                             | R                 | 5.8                   | 5.4              | 7                     | 6.6              | 8.2                  | 7.6              | 10.4                 | 9.6              | 14                    | 17.5                  |
|                                             | T                 | 1.8                   |                  | 2.1                   |                  | 2.4                  |                  | 2.4                  |                  | 2.7                   | 3                     |
| Weight [lbs / kg]                           |                   | 0.71 / 0.32           |                  | 1.3 / 0.6             |                  | 2.4 / 1.1            |                  | 4.4 / 2.0            |                  | 8.2 / 3.7             | 15.4 / 7.0            |

[ Included parts & accessories : bolts, washers, spacers, surge protector ]

[ 1 inch = 25.4 mm ]

[ Note 1 : Silent type ]