

## **Stepper Motors Size 05**

This miniature stepping motor, incorporating samarium cobalt permanent magnets, was initially developed for use in a specialised missile guidance system and has successfully survived acceleration tests up to 15,000g.

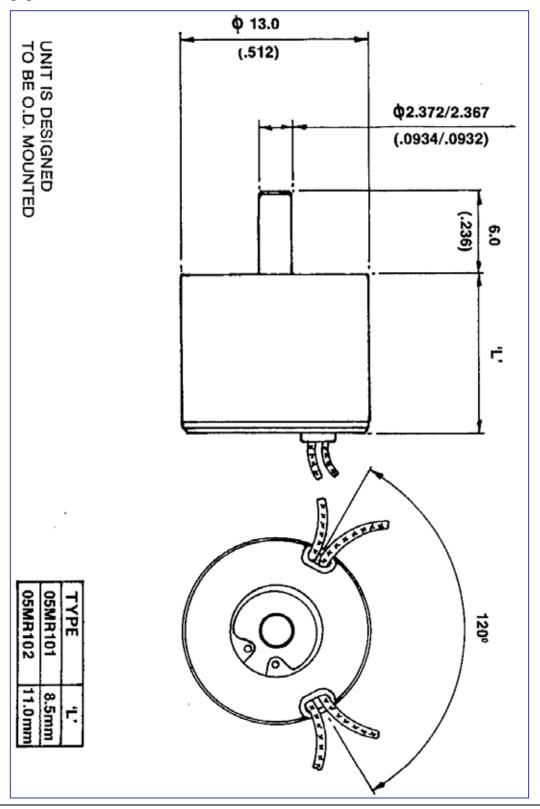
The size 05 stepping motor is available in two standard lengths, with the longer 11 mm version producing a higher holding torque of 7 g.cm. The motor produces four steps of 900 with each revolution and has a nominal speed capability up to 9,000 rpm.



| 05MR Series Specification |  |  |
|---------------------------|--|--|
| Туре                      | 05MR101  | 05MR102  |
| Length                    | 8.5mm  | 11mm   |
| Input                     | 12V nominal  | 12V nominal  |
| Step Angle                | 90 <sup>o</sup>  | 90 <sup>°</sup>  |
| Steps Per Rev             | 4  | 4  |
| Operating Temp Range      | -40°C to +80°C   | -40°C to +80°C   |
| Holding Torque            | 3 g.cm (0.04 oz in)  | 7 g.cm (0.097 oz in)   |
| Phases                    | 2  | 2  |
| Leads                     | 4  | 4  |
| Phase Resistance          | 92 ohms  | 114 ohms   |
| No Load Pull-in           | 145pps (2175 rpm)  | 330pps (4,950 rpm)   |
| Rotor Inertia             | 0.03 g.cm <sup>2</sup> (1.65 x 10 <sup>-4</sup> oz in <sup>2</sup> | 0.06 g.cm <sup>2</sup> (3.28 x 10 <sup>-4</sup> oz in <sup>2</sup> |
| Operating Speed           | 9,000 rpm  | 9,000 rpm  |
| Weight                    | 7g   | 9g   |



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