

Electropermanent Magnets - Type GMP

Application Notes and Advice for Optimum Performance

1. Separating Load

To ensure release a minimum separating load must be present at the time the operating signal is first applied. This must exceed the 'remanence' force listed in the data sheet e.g for type GMP X035 X00 A01 : minimum separating load = 44N. See also Graph 1 below.

2. Installation Orientation

The holding face of the magnet should be positioned such that foreign matter cannot come to rest upon it when the armature is not in contact. The effect of particles between the magnet face and armature would be to reduce the holding force.

3. Armature, Type GZZE

The armature must be flexibly mounted to ensure positive contact over the full diameter of the magnet face. A shouldered fixing screw and flexible alignment washer are provided for this purpose.

4. Polarity

Correct polarity from the supply voltage must be observed to overcome the effect of the permanent magnet.

5. Ambient Temperature and Voltage Span

Whilst the permanent magnet force is constant, the opposing electromagnet force will vary with temperature and voltage. See Graph 2 below. Full testing in the application must be undertaken to ensure release in worse case conditions.

