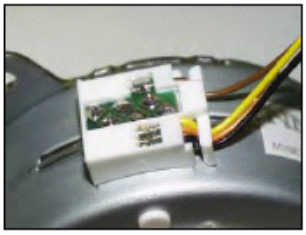
Selection of PM Motors

Choice of Coil Extension Method

Minebea offers a variety of methods to enable customers to choose a coil extension method suitable for the equipment that they are using, while keeping total costs to the very minimum. We also include some general examples of applications, for reference use during the selection process.

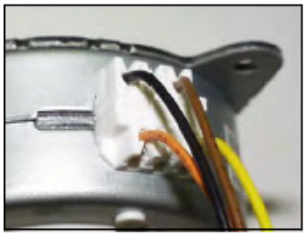
1) Wire Holder Method

In this method, the wire is directly soldered to the coil terminal of the motor, via the PCB. This is an effective method when there is little room to spare with the dimensions of the coil terminal, if a change in direction of the connection is desired, or when five wires are to be connected. This is the most typical bonding method used on our motors.



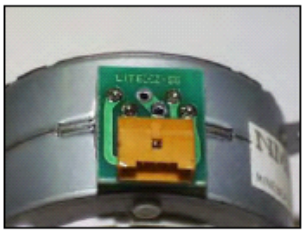
2) IDC Method

This a method whereby a pressure welding type connector is attached to the coil terminal of the motor and the lead wire is pressure welded using a special device.



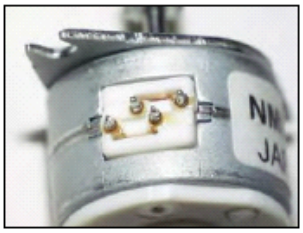
3) PCB Connector Method

The connector is attached to the coil terminal of the motor via the PCB, to connect a wire prepared by the customer. In order to reduce total costs, this method has been increasingly used in recent years.



4) Pin Terminal Method

In this method, a terminal pin protrudes directly from the coil terminal of the motor. This method is suitable when the customer wishes to directly attach and solder the motor to the PCB, etc. This method is often used for miniature motors with a diameter less than ϕ25.



5) FPC Method

The FPC is directly soldered to the coil terminal of the motor for use. However, costs are disadvantageous where only a small volume is to be handled, or when the FPC is long (optimum length is less than 50mm). This method is therefore most often used for miniature motors with a diameter less than ϕ25.