

Anritsu K Connector®

01-108

Finishing Step Drill and Tap Kit (Sliding Contacts)

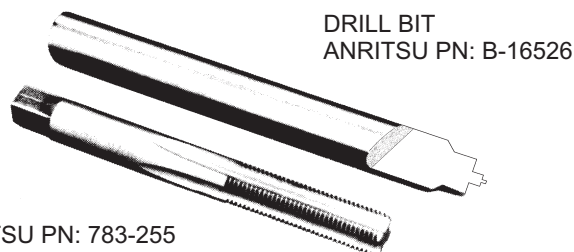


Figure 1. Finishing Step Drill

The finishing step drill is made of high-speed steel. It is designed for use on aluminum and brass housings.

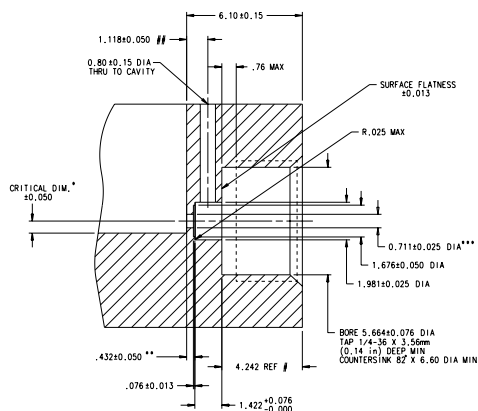
CAUTION

The drill bit in this kit is not intended for use with stainless steel, invar, or Kovar. However, satisfactory operation—with a limited life—can be obtained with these materials if a pilot hole is drilled first. This pilot hole should be within 0.125 mm of the required 5.664, 1.981, and 0.838 mm hole diameters.

Handle the drill bit with care: It has a 0.838 mm diameter tip.

Machining Instructions

The drill bit in this kit (Figure 1) simultaneously machines the concentric holes needed to install the K102 Sparkplug and K103/K104 Flange Mount Connectors used in conjunction with the K110 Sliding Contacts and glass bead.



NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS.
- THE CONCENTRICITY OF THE 1.676, 1.981, AND 5.664 DIA HOLES TO THE 0.711 DIA HOLE IS CRITICAL AND MUST BE HELD WITHIN ±0.038mm.
- WITH THE MODEL 01-104 DRILL KIT, ALL OF THE REQUIRED CONCENTRIC HOLES CAN BE MACHINED AT THE SAME TIME USING A SINGLE BIT.
 - DIMENSION IS 0.152 (PIN RADIUS)
 - SUBSTRATE
 - SOLDER THICKNESS
- DIMENSION IS 0.889±0.050mm IF SLIDING CONTACTS ARE USED.
- DIMENSION IS 0.838±0.025mm IF SLIDING CONTACTS ARE USED.
- DIMENSION IS 3.785mm IF SLIDING CONTACTS ARE USED.
- DIMENSION IS 1.575±0.050mm IF SLIDING CONTACTS ARE USED.

CAUTION

Do not use a drill press for the following steps. The precise tolerances needed require a milling machine.

- For the pilot hole:
 - Drill a through hole using a number-74 (0.0225 inch) or 0.60 mm drill bit.
 - Expand the hole to a depth of 5 mm with a number-52 (0.063 inch) or 1.6 mm drill bit.
- Install the step-drill bit directly into the collet of the mill. Do not use a drill chuck to hold the bit.
- Set the drilling speed for 1500 to 2000 rpm and the feed rate for 0.006 mm per revolution.
- Drill the holes using full-flood coolant and a steady, even feed. Periodically withdraw the drill bit and clear away the chips.
- Place the material to be machined into the vise of the mill.
- For the K102 Sparkplug Connector:
 - Drill the hole as shown in Figure 2 for the 6.10 mm wall thickness.
 - Tap the hole using the tap supplied with the 01-108 kit.
- For the K103 and K104 Flange Mount Launchers:
 - Drill only the 0.838, 1.676, and 1.981 mm holes; make the 1.981 mm hole 1.448 mm deep.
 - Tap the two or four mounting holes as shown in Figures 2 and 3.

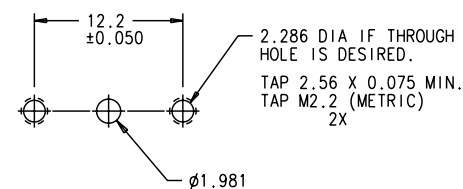


Figure 2. Mounting-Hole Dimensions for the K103 Flange Mount

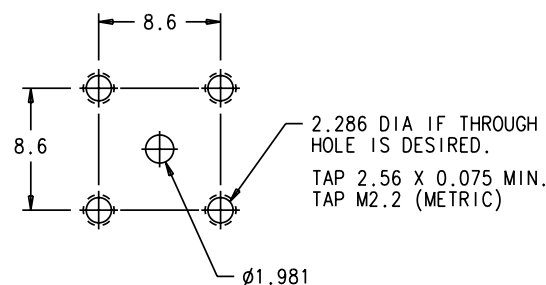


Figure 3. Mounting-Hole Dimensions for the K104 Flange Mount Connections