

## Specifications

Soldering Temperature: 250° C, maximum  
Soldering Time: Any heating operation to 250° C not to exceed 20 seconds with a maximum of three heating operations to 250° C



# Anritsu

## W1-102M Connector

### Microstrip to W1 Male Sparkplug Connector Launcher

Figure 1. W1-102M Connector

#### 1. Materials

For hermetic installations, the following materials may be required.

Name	Vendor and Model/Part No.
Solder, 60 In, 40 Pb	Indalloy #205
Solder, 97 In, 4 Ag	Indalloy #290
Cleaning Fluid	Isopropyl Alcohol
Rosin Flux	#1544- HT Kester Co.

#### 2. Tools

These tools may be needed to install the W1-102M Connector. Equivalent tools may be used.

Name	Vendor and Part No.
W1-6 mm Torque Wrench	Anritsu 01-504
W1-6X7 mm Open End Wrench	Anritsu 01-505
W1-7 mm Torque Wrench	Anritsu 01-506
Hot Plate	any

#### 3. Machining Dimensions

Machining details for creating the housing wall are shown in Figure 2.

The floor offset is calculated as follows:  
Offset = substrate thickness + 0.0635 (radius of pin) + 0.075 (clearance for solder flow).

#### 4. Installing the Connector into the Housing

- Thread the connector into the housing wall by hand until lightly seated, then back the connector out approximately 1/8 turn, or 45 degrees. This will allow for final tightening with the torque wrench.
- Use the 7 mm torque wrench on the hex portion of the connector body to secure it to the housing wall. The proper amount of torque assures a good ground connection.

#### 5. Semi-hermetic Seal Installation

- For a semi-hermetic seal, and to permanently install the launch assembly in the package or fixture, epoxy may be applied to the connector threads prior to installation.
- Use heat to cure the epoxy, if necessary.

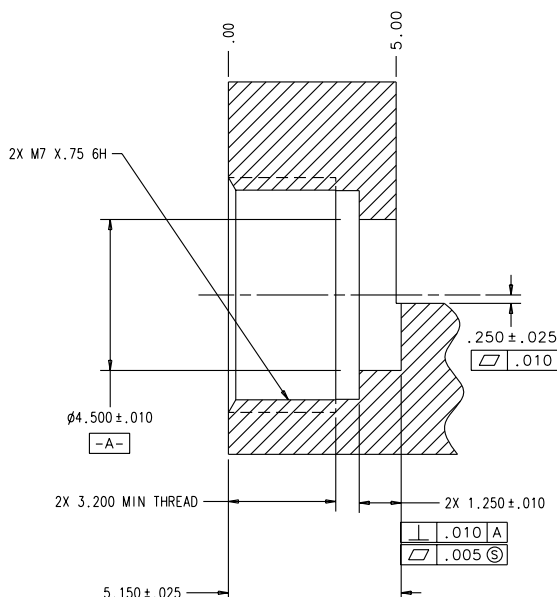


Figure 2. Machining Details

## 6. Hermetic Seal Installation

- Depending upon the installation, use either of the recommended solders to achieve a hermetic seal.
- Refer to Figure 3 for placement of the solder ring or preformed washer.
- Clean the assembly with alcohol or an equivalent solvent to remove any remaining flux.

### NOTE

Visually verify that there is a good solder flow (without any pinholes) between the connector and the wall of the housing. This will ensure that a hermetic seal is created for the connector assembly.

## 7. Connecting the Housing to the Substrate

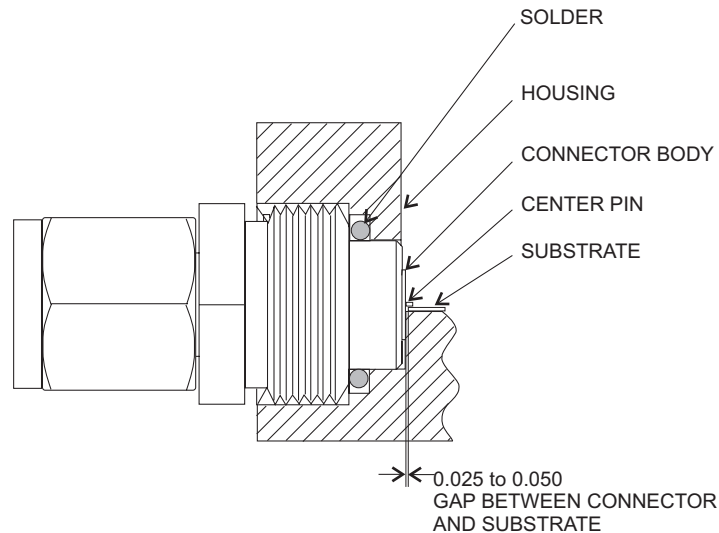
- Clean the housing with alcohol and blow it dry.
- Place the edge of the substrate  $0.025 \pm 0.008$  mm from the end of the outer body of the connector (see Figure 3).
- Slide the substrate under the center pin so that the center pin is aligned over the center trace.
- Attach the center pin of the connector to the trace with electrically conductive epoxy, or by using a low temperature indium solder.

## 8. One Millimeter Connection Procedure

- Hold the hex portion of the connector with 7 mm side of the 01-505, open-end wrench.
- Use 01-504, 6 mm torque wrench to apply the recommended torque to the 1 mm male coupling nut.

## 9. One Millimeter Disconnection Procedure

- Hold the hex portion of the connector with 7 mm side of the 01-505, open end wrench.
- Use 01-504, 6 mm torque wrench to disconnect the 1 mm male coupling nut.



**Figure 3.** Connection to Substrate