

# NP89 Series

# Pin Grid Array / Zero Insertion Force (PGA / ZIF)

## Specifications

Insulation Resistance: 1,000MΩ min. at 500V DC  
 Dielectric Withstanding Voltage: 700V AC for 1 minute  
 Contact Resistance: 30mΩ max. at 10mA/20mV max.  
 Operating Temperature Range: -40°C to +170°C

## Materials and Finish

Housing: Polyetherimide (PEI), glass-filled, UL94V-0  
 Contacts: Beryllium Copper (BeCu)  
 Plating: Gold over Nickel

## Features

- ◇ Wiping action system: Cleans up IC lead surface during handling action
- ◇ Reliable 3 point contact system
- ◇ Cost performance: Different contact thickness for contact area and terminal area
- ◇ Depopulated versions available
- ◇ Also available with lever on the right hand side, standard type is lever on the left hand side

## Part Number (Details)

**NP89 - 121 10 MF - G 4 - BF**

Series No.

No. of Contact Pins

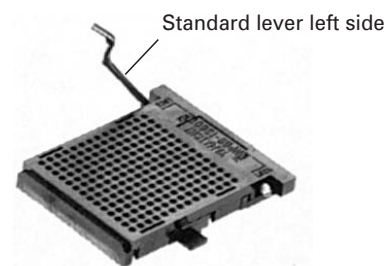
Design Number

MF = Flanged  
 Unmarked = Not Flanged

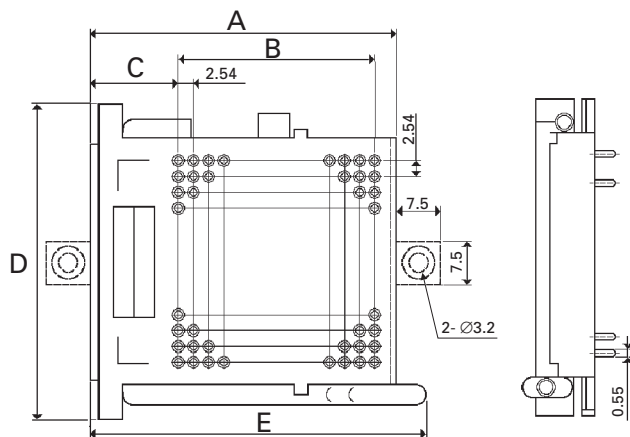
Contact Plating (Gold)

Contact Terminal Style

Plating Specification

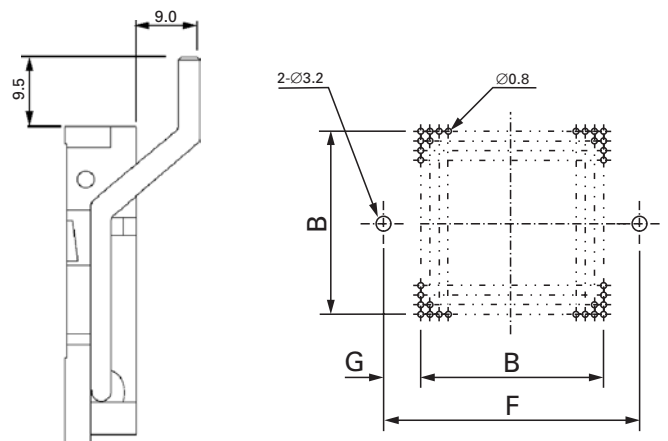


## Outline Socket Dimensions



## Recommended PC Board Layout

Top View from Socket



| Part Number        | Grid Size | Pin Count | Socket and PC Board Dimensions |       |       |      |      |      |       |
|--------------------|-----------|-----------|--------------------------------|-------|-------|------|------|------|-------|
|                    |           |           | A                              | B     | C     | D    | E    | F    | G     |
| NP89-12110**-G4-BF | 11 x 11   | 121       | 42.5                           | 25.4  | 14.0  | 42.5 | 52.0 | 50.1 | 17.55 |
| NP89-14409**-G4-BF | 12 x 12   | 144       | 43.1                           | 27.94 | 12.0  | 42.7 | 52.6 | 50.7 | 15.55 |
| NP89-13302**-G4-BF | 14 x 14   | 133       | 51.0                           | 32.02 | 14.65 | 51.0 | 60.5 | 58.6 | 18.2  |
| NP89-19601**-G4-BF | 14 x 14   | 196       | 51.0                           | 32.02 | 14.65 | 49.0 | 60.5 | 58.6 | 18.2  |
| NP89-22508**-G4-BF | 15 x 15   | 225       | 52.7                           | 35.56 | 14.0  | 50.3 | 65.4 | 60.3 | 17.55 |
| NP89-21004**-G4-BF | 17 x 17   | 210       | 59.0                           | 40.64 | 14.65 | 57.0 | 71.7 | 66.6 | 18.2  |
| NP89-28906**-G4-BF | 17 x 17   | 289       | 59.0                           | 40.64 | 14.65 | 57.0 | 71.7 | 66.6 | 18.2  |
| NP89-36105**-G4-BF | 19 x 19   | 361       | 63.7                           | 45.72 | 14.65 | 61.7 | 73.2 | 71.3 | 18.2  |
| NP89-44111**-G4-BF | 21 x 21   | 441       | 69.0                           | 50.8  | 14.95 | 68.0 | 81.7 | 76.4 | 18.5  |
| NP89-62522**-G4-BF | 25 x 25   | 625       | 85.7                           | 60.96 | 17.95 | 82.0 | 95.2 | 92.8 | 21.5  |