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# **BK-912-FH-4-TR**

MPD Introduces a new and improved CR2032 coin cell retainer. The BK-912-FH-4-TR has 4 flow holes to help with the soldering process.

Flow holes, also known as solder flow or thermal relief holes, are designed to facilitate the soldering process of metal parts to a PCB (printed circuit board) or other components. Here are the advantages of having flow holes for soldering a metal part:

## 1. Improved Heat Distribution:

 Flow holes allow for better heat distribution during the soldering process. This helps prevent overheating of the metal part and the PCB, reducing the risk of damage to both.

#### 2. Enhanced Solder Flow:

• These holes enable solder to flow more easily and evenly around the joint. This ensures a more reliable and robust connection between the metal part and the PCB.

#### 3. Reduced Thermal Stress:

• By allowing heat to dissipate more efficiently, flow holes reduce thermal stress on the components. This can increase the lifespan and reliability of the soldered joints.

#### 4. Improved Mechanical Strength:

 Solder joints with flow holes often have better mechanical strength due to the more even distribution of solder. This can be particularly important in applications where the soldered parts are subject to mechanical stresses.

#### 5. Easier Inspection:

• Flow holes can make it easier to inspect the quality of the solder joint, both visually and using automated inspection systems. This can help identify potential issues early in the manufacturing process.

#### 6. Better Flux Activation:

• The presence of flow holes can help activate the flux more effectively. Flux is used to clean the surfaces being soldered, and its proper activation is crucial for a strong bond.

#### 7. Reduced Solder Bridging:

• Flow holes can help prevent solder bridging, which is a common issue where excess solder creates unintended connections between adjacent pads or components.

## 8. Facilitated Rework:

• If rework is needed, flow holes can make it easier to remove the old solder and clean the joint, allowing for a cleaner and more efficient re-soldering process.

Overall, flow holes are a critical design feature that can significantly enhance the quality, reliability, and durability of soldered connections in various electronic and mechanical assemblies.





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