Product Name: Plastic Melt Flow Index Tester

Model: ZRZ2452N

Functional Overview:

The Plastic Melt Flow Index Tester is a specialized device for determining the melt flow rate of thermoplastic plastics under specified conditions, and it can indirectly measure the molecular weight of polymers. The melt flow rate (MFR/MI) or melt volume flow rate (MVR) of thermoplastic plastics refers to the mass or volume of melt passing through a standardized die per 10 minutes under a specific temperature and load. This parameter distinguishes the viscous flow characteristics of thermoplastics in the molten state.

The tester is suitable for engineering plastics with high melting temperatures, such as polycarbonate (PC), polysulfone, fluoroplastics, and nylon, as well as plastics with lower melting temperatures, including polyethylene (PE), polystyrene (PS), polypropylene (PP), ABS resin, polyoxymethylene (POM), and polycarbonate (PC) resin. It plays a critical role in ensuring the quality of raw materials and products for thermoplastics and chemical fibers.

Technical Specifications:

Temperature Range: 100℃ to 450℃
Temperature Stability: ±0.5℃

4h Drift: ≤0.5℃
Temperature Uniformity: ≤0.5℃
Resolution: 0.1℃
Error Correction: Random
Temperature Recovery Time After Loading: ≤4min
Timing Range: 0–6000s
Timing Resolution: 0.1s
Cutting Methods: Automatic timed cutting, manual cutting, point-to-point cutting
Die Inner Diameter: Φ2.095±0.005mm
Die Height: 8.000±0.025mm
Barrel Inner Diameter: Φ9.550±0.020mm
Load Accuracy: ≤±0.5%
Standard Loads: 875g, 960g, 1200g, 1640g
Weight Accuracy: ±0.5%
Output Method: Built-in automatic micro-printer
Measurement Range: 0.04–400g/10min
Power Supply: AC220V±10%, 50Hz

Product Features:

High Precision Temperature Control
±0.5℃ accuracy ensures reliable test results.

Nitriding Treatment for Key Components
Enhances strength, hardness, and minimizes deformation.
Wide Applicability
Supports testing and data processing according to **GB, ISO, ASTM**, and other international standards.
Stable Performance with Low Failure Rate
Electrical components undergo rigorous aging tests; software is optimized for long-term stability.
Dual Testing Modes
Supports both **mass method (MFR)** and **volume method (MVR)** in one machine.
User-Friendly Touchscreen Interface
Simplifies operation and data visualization.

Relevant Standards:

GB/T 3682-2018: Determination of Melt Mass-Flow Rate (MFR) and Melt Volume-Flow Rate (MVR) of Thermoplastics
ISO 1133:1997: Determination of the Melt Mass-Flow Rate (MFR) and Melt Volume-Flow Rate (MVR) of Thermoplastics
ASTM D1238: Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer

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