



Medical & Metrology
Test Equipment

Centrifugal Clinical Thermometer Shaker

KR-3C Product Catalogue

Motor-driven batch column resetting for maximum-indicating liquid-in-glass clinical thermometers before repeated measurement, verification and production inspection.

≤ 60 / BATCH

1,400 r/min

25 W



Standards Context

JJG 111-2019
EN 12470-1

Test Object

Maximum-indicating
glass clinical thermometers

Reset Method

Motor-driven
centrifugal action

Primary Use

Verification preparation
and production QC

Product Overview and Column-Reset Workflow

The KR-3C is a dedicated centrifugal clinical thermometer shaker for resetting retained liquid columns before the next measurement or verification cycle. It is supporting preparation equipment rather than a temperature-generating or error-measuring system.

Batch column resetting

Processes up to 60 compatible thermometers in one batch, reducing repetitive manual shake-down work.

Defined centrifugal action

Rated operation at 1,400 r/min provides a motor-driven resetting process for correctly loaded samples.

Verification preparation

Supports sample preparation before repeated immersion, indication-error testing and laboratory verification.

System integration

Can work alongside a calibration bath, reference thermometer, sample holder and reading station.

KR-3C

Centrifugal Clinical Thermometer Shaker



Maximum-indicating thermometers

Centrifugal column reset

Up to 60 per batch

Verification preparation

Functional Workflow

1

Inspect

Check samples for damage.

2

Load

Place compatible thermometers.

3

Balance

Distribute the load evenly.

4

Reset

Run the approved cycle.

5

Verify

Confirm the column position.

Detailed Technical Specifications

The following values are based on the available KR-3C source information. Unconfirmed dimensions, weight, cycle time, holder dimensions, noise and effective centrifugal acceleration are intentionally excluded.

Product and Operating Data

Parameter	Specification
Model	KR-3C
Product name	Centrifugal Clinical Thermometer Shaker
Operating principle	Centrifugal column resetting
Rotational speed	1,400 r/min
Maximum capacity	≤ 60 thermometers per batch
Main function	Reset retained columns in maximum-indicating glass clinical thermometers

Electrical and Application Data

Parameter	Specification
Rated power	25 W
Rated voltage	AC 220 V ±22 V
Rated frequency	50 Hz ±1 Hz
Applicable samples	Maximum-indicating liquid-in-glass clinical thermometers
Application	Verification preparation, production inspection and repeated measurement
Not intended for	Digital, electronic, infrared or phase-change thermometers

Configuration Confirmation

- Thermometer filling liquid and maximum-indicating construction
- Overall length, maximum diameter and bulb dimensions
- Holder compatibility, cushioning and balanced loading
- Applicable verification or internal production procedure
- Destination-country electrical supply and documentation needs

Technical Note

Reset performance can be influenced by the filling liquid, capillary restriction, retained reading, sample dimensions and loading arrangement. The liquid-column position should be inspected after each cycle. The KR-3C does not generate a reference temperature, measure indication error or provide automatic pass/fail results.

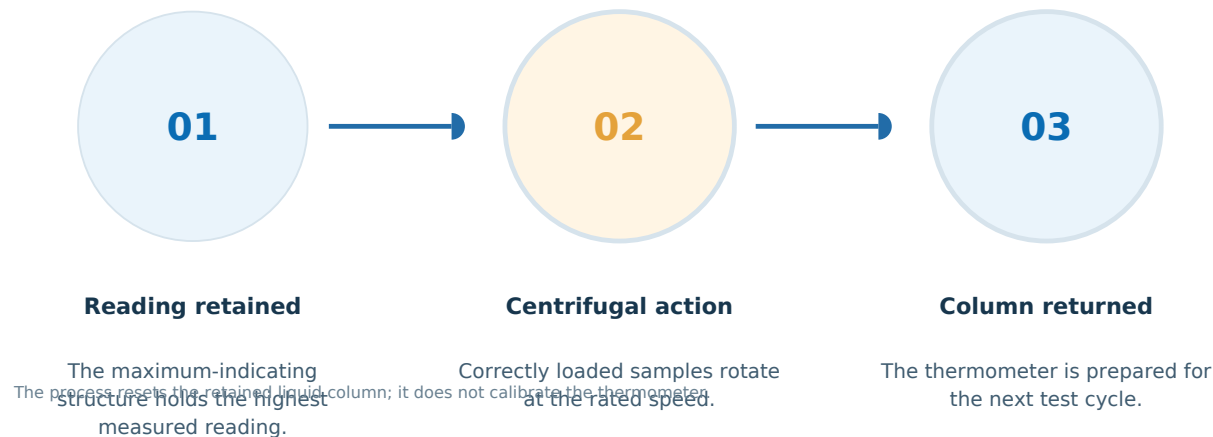
Parameters requiring confirmation before quotation

Overall dimensions • net weight • operating time • holder dimensions • noise level • effective centrifugal acceleration

Centrifugal Reset Principle and Operating Method

Maximum-indicating thermometers retain the highest reading because the capillary restriction prevents the liquid column from returning freely after cooling. The KR-3C applies centrifugal force to return the retained column toward the sensing bulb.

Column-Reset Concept



Operating Method Notes

- Inspect each thermometer before loading.
- Use compatible holders and suitable cushioning.
- Distribute the samples evenly to maintain balance.
- Operate according to the approved work instruction.
- Wait for complete stop before removing samples.
- Confirm the resulting liquid-column position.

Typical Preparation Sequence



Reference Standards and Complete Laboratory Context

The cited standards apply to the clinical thermometer or its verification procedure. The KR-3C is supporting preparation equipment and should not be represented as an independently certified calibration or verification system.

JJG 111-2019 — Clinical Thermometers

Chinese verification regulation for maximum-indicating liquid-in-glass clinical thermometers within the 30.0°C to 43.0°C measuring range. The KR-3C supports the column-resetting and sample-preparation stage.

EN 12470-1:2000+A1:2009

Specifies performance requirements and test methods for metallic liquid-in-glass clinical thermometers with a maximum-indicating device. The standard applies to the thermometer under evaluation, not to the shaker itself.

Complete Verification Arrangement

KR-3C
Column reset

Calibration bath
Reference temperature

Reference thermometer
Temperature traceability

Reading station
Indication evaluation

Records
Verification evidence

Supporting Equipment

- Temperature calibration bath and multi-sample holder
- Reference thermometer or SPRT
- Reading or magnification device
- Timing and environmental monitoring instruments

Compliance Boundary

Final compliance depends on the complete laboratory arrangement, applicable standard edition, thermometer construction, reference equipment, operating method and retained records. Confirm the local regulatory status of mercury-containing thermometers before use.

Applications, Selection Notes and Safe Operation

The KR-3C supports laboratories and manufacturers that process maximum-indicating glass clinical thermometers in batches. Suitability should be confirmed against the actual thermometer design and project procedure.

01

Legal Metrology Laboratories

Batch preparation before verification, repeated immersion and indication-error testing.

02

Thermometer Manufacturers

Production inspection, sampling, final quality control and repeated performance testing.

03

Calibration & Inspection Facilities

Integration with a calibration bath, reference thermometer, holder and reading station.

04

Hospitals & Medical Departments

Reduced manual shake-down work where reusable glass thermometers remain permitted.

Selection Information

- Filling liquid and thermometer construction
- Overall length, diameter and bulb dimensions
- Expected batch quantity and holder arrangement
- Applicable standard or internal procedure
- Power supply and documentation requirements

Safe Sample Handling

- Inspect for cracks and damaged bulbs
- Do not process abnormal samples
- Load evenly and use suitable cushioning
- Wait for complete stop before removal
- Follow local mercury-control procedures

Routine Maintenance

- Check holders and cushioning materials
- Inspect rotating parts and controls
- Check the power cable for damage
- Investigate unusual vibration or noise
- Verify speed under the quality procedure

Technical Inquiry and Expert Support

To confirm whether the KR-3C matches your application, provide the key project information below. This supports an accurate review of thermometer compatibility, loading arrangement, electrical supply and documentation requirements before quotation.

Please Provide the Following Information

- 1 Thermometer type: maximum-indicating liquid-in-glass construction and filling liquid
- 2 Applicable procedure: JJG 111-2019, EN 12470-1 or internal production method
- 3 Sample dimensions: overall length, maximum diameter and bulb dimensions
- 4 Loading requirement: expected batch quantity, holder arrangement and cushioning
- 5 Electrical supply: destination-country voltage and frequency
- 6 Documentation: English manual, factory report, speed record, packing list or traceability needs



Product Page



Scan the QR code to open the KR-3C Centrifugal Clinical Thermometer Shaker product page.

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Final suitability and documentation scope should be confirmed against the actual thermometer samples, applicable procedure and laboratory arrangement.