

# CERTIFICATE OF CALIBRATION

ISSUED BY: **CALIBRATION MAINTENANCE & REPAIR LTD**

DATE OF ISSUE: 22 May 2025

CERTIFICATE NUMBER: **1181693**

BS EN ISO  
9001:2015  
APPROVED  
BY  
**LRQA**

CERT No 10045223



11 Frensham Road  
Norwich  
Norfolk  
NR3 2BT

Tel: +44 (0)1603 279557

**Page 1 of 3**  
**Approved Signatory**  
Electronically Authorised Document

<input type="checkbox"/> P K CLARK	<input type="checkbox"/> J FRYER
<input type="checkbox"/> R J WADE	<input type="checkbox"/> M FOY
<input type="checkbox"/> M A FROST	
<input checked="" type="checkbox"/> M S PARDOE	

<b>Customer</b>	<b>TOTAL LABORATORY SERVICES LTD</b>
<b>Order No</b>	<b>2025104</b>
<b>Equipment Description</b>	<b>VIBRATION METER</b>
<b>Manufacturer</b>	<b>NOT KNOWN</b>
<b>Model</b>	<b>GM63B</b>
<b>Serial No</b>	<b>2948744</b>
<b>Ident No</b>	<b>NOT KNOWN</b>
<b>Calibrated By</b>	<b>Richard Wade</b>
<b>Date Of Calibration</b>	<b>22 May 2025</b>

## INSTRUMENT CONDITION

<b>Adjustments Made</b>	<b>NO</b>
<b>Repairs Made</b>	<b>NO</b>

## ENVIRONMENT

The instrument was placed in the laboratory environment for a minimum period of 4 hours and was operated prior to calibration.

Measurements were made in ambient conditions of 22 °C ± 3 °C and 45 %RH ± 15 %RH.

## PROCEDURE

Measurements were performed in accordance with the in house laboratory procedure 14116. All equipment used has been calibrated/verified against measurement standards or reference equipment traceable to International or National Measurement Standards as specified in our control procedure WI64.

The results attached to this certificate refer to measurements made at the time of test and not to the instrument's ability to maintain calibration.

The attached results are a true record of the levels required to confirm the instrument meets the original stated manufacturer's specification and accuracy where shown.

# CERTIFICATE OF CALIBRATION

ISSUED BY: **CALIBRATION MAINTENANCE & REPAIR LTD**

BS EN ISO 9001:2015 APPROVAL CERTIFICATE No. 10045223



CERTIFICATE NUMBER

**1181693**

**Page 2 of 3**

## Calibration Equipment Used:

Cert Number	Ident Number	Model	Serial Number	Test Equipment Calibration Due
1171999IH	149	301A11	1934	20 Nov 2025
1173690IH	182	Laser	11633408	19 Dec 2026

## Notes:

## Measurement Uncertainties

The expanded uncertainty quoted refers to the measured values only, with no account being taken of the instruments ability to maintain its calibration. The expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor  $k = 2$ , providing a level of confidence of approximately 95%.

PARAMETER	RANGE	EXPANDED UNCERTAINTY
d.c. Resistance	0.01Ω - 400MΩ	± 409ppm
	400MΩ - 1TΩ	± 1%
d.c. Voltage	0V - 1kV	± 79ppm
d.c. Voltage	1.01kV-15kV	± 2.2%
d.c. Current	0mA - 20A	± 437ppm
a.c. Voltage	0mV - 1.05kV	± 1.2%
a.c. Current	0mA - 20A	± 0.5%
Frequency	0.5Hz - 20GHz	± 0.1ppm
Capacitance	0.5nF - 40mF	± 1.1%
Time	0 - 1 Hour	± 1s
Distortion	10mV - 100V	± 1.4mV
Temperature (Dry Block)	-30°C - 350°C	± 1%
Temperature (Simulation)	-270°C - 1800°C	± 0.57%
Pressure	10mBar - 35Bar	± 0.04%
Dynamic Pressure	1.38 - 103.5MPa	± 5.0%
Torque	0.1 - 1100Nm	± 1.5%
Weight	2g - 157kg	± 0.03%
Humidity	0% - 90%	± 1%
Shock & Impulse Hammers		± 4%
Spring Hammers		± 0.015J
Sound	Frequency	± 0.06%
Sound	Level	± 0.16dB
Tachometers	60rpm - 96000rpm	± 0.1%
Anemometers	2.5m/s to 15m/s	± 2.0%
Vibration Meters	10Hz - 1kHz	± 5%
Vibration Calibrators		± 3%
Mechanical Measurement	<200mm	± 0.01μm
	>200mm	± 0.002mm
Inductance		± 0.1%
Power (VA)		± 1%
Power (RF)		± 0.5dB
Light Meters	20-2000Lux	± 3.5%
Force (Compression)	0.25N - 50kN	± 0.25%

These uncertainties are only applicable if no uncertainties are shown on the result sheet.

This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

# CERTIFICATE OF CALIBRATION

ISSUED BY: CALIBRATION MAINTENANCE & REPAIR LTD



CERTIFICATE NUMBER

**1181693**

## RESULT SHEET 14116 - GM63B VIBRATION METER

**BATTERIES REPLACED**

**NO**

### AS FOUND

#### 1) ACCELERATION

Frequency	Applied	Limits	Measured	Units	Error %
160Hz	1.0	±25.0%	0.9	m/s <sup>2</sup>	-10.00
160Hz	10.0	±7.0%	9.8	m/s <sup>2</sup>	-2.00

#### 2) VELOCITY

Frequency	Applied	Limits	Measured	Units	Error %
160Hz	10.0	±7.0%	9.8	mm/s	-2.00
160Hz	100.0	±5.2%	99.6	mm/s	-0.40

#### 3) DISPLACEMENT

Frequency	Applied	Limits	Measured	Units	Error %
160Hz	0.01	±25.0%	0.010	mm/s	0.00
160Hz	0.10	±7.0%	0.099	mm/s	-1.00

#### 4) TEMPERATURE

Nominal	Limits	Measured	Units	Error %
21.5	±2.0°C	21	°C	-0.50