

CERTIFICATE OF CALIBRATION

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

DATE OF ISSUE: 30 September 2026 CERTIFICATE NUMBER: **1209038**

BS EN ISO
9001:2015
APPROVED
BY
LRQA

10551409



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Approved Signatory
Electronically Authorised Document

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Customer	TOTAL LABORATORY SERVICES LTD
Order No	2025393
Equipment Description	VIBRATION METER
Manufacturer	EXTECH INSTRUMENTS
Model	SDL800
Serial No	A.031598
Ident No	NOT KNOWN
Calibrated By	Richard Wade
Date Of Calibration	30 September 2026

INSTRUMENT CONDITION

Adjustments Made	NO
Repairs Made	NO

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 3858. 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.

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Calibration Equipment Used

Certificate Number	Equipment ID	Model	Calibration Due
1173690IH	182	Laser	19 Dec 2026
1190901IH	149	301A11	10 Nov 2026

Notes:

Referenced Standards Conforms to Manufacturer's Specification

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

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.

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RESULT SHEET 3858 – SDL800 VIBRATION METER

AS FOUND

1) ACCELERATION

Frequency	Level	Limits	Measured	Units	Error %
10Hz	1.0	±7%	0.99	g RMS	-1.00
80Hz	1.0	±7%	0.99	g RMS	-1.00
160Hz	1.0	±7%	0.99	g RMS	-1.00
800Hz	1.0	±7%	0.97	g RMS	-3.00

2) VELOCITY

Frequency	Level	Limits	Measured	Units	Error %
80Hz	10.00	±7%	10.00	mm/sec RMS	0.00

3) DISPLACEMENT

Frequency	Level	Limits	Measured	Units	Error %
80Hz	1.00	±25%	1.002	mm pk-pk	0.20

COMMENTS

Vibration Meter Serial No. A.031598 and supplied accelerometer are calibrated as a unit, the results are only valid when they are used together.