

Issued by
Trescal Ltd
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APPROVED SIGNATORY

William Merryman (262)

*(Signed electronically)***Customer:**

PPT Group UK Ltd t/a Mecmesin, Newton House, Spring Copse Business Park
Slinfold, Horsham, West Sussex, RH13 0SZ

Location of calibration:

Trescal Ltd, Park Gate Close, Bredbury Park Way
Bredbury, Stockport, SK6 2SL, UK

Equipment Details:

Description:	Speed Verification Tool		
Manufacturer:	ELV		
Type No:	LSU 100	Date of Receipt:	04 Jun 2025
		Order No:	138337-1
Serial No:	TM0407	Our Reference:	00527554
Calibrated By:	Jack Turner	Date of Calibration:	03 Jul 2025

Calibration Summary

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Assessment of conformance has been undertaken in accordance with the agreed decision rule detailed within this certificate.

Status on Receipt: Measured Values Only

No assessment of conformance has been undertaken.

Status on Despatch: Measured Values Only

No assessment of conformance has been undertaken.

Action(s) Taken: Full Calibration

Ambient Conditions: Temperature: 20 \pm 2 $^{\circ}$ C

Humidity: 35 \pm 20 %rh

Customer requested calibration due date:

The results given within this certificate only relate to the item calibrated. The expanded uncertainties quoted refer to the measured values only, with no account being taken of the instruments ability to maintain its calibration. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Agreed and applied Decision Rule used to determine conformance:

It has been stipulated by the customer that assessment of conformance is not required. (Trescal Rule 0)
Reference: Trescal document TRE/DEC/0004 Issue 1

Receipt Comments:

Cal as 4099520001, work instruction 021-973

Calibration Equipment Used

Asset No	Due Date	Asset No	Due Date
120500	31/08/2025	ELect Temp	30/09/2025
FC224	31/07/2025	FC571	01/04/2026
FC628	31/01/2026	FC657	31/10/2025

The following information and any identified symbols are used by Trescal in determining the conformance of the device at each measurement point, which is then evaluated in line with the requested decision rule. Where this decision rule is of a "Binary Rule" type then the "Conditional Pass & Fail" statuses are treated as specified by the chosen decision rule. The overall conformance statement determined is given on page one of this certificate.

Key to results annotations, where applicable

* The measurements marked thus have been determined to be outside the specification, due allowance having been made for the expanded uncertainty.

! The measurements marked thus are within the specification by a margin less than the expanded uncertainty.

^ The measurements marked thus are outside the specification by a margin less than the expanded uncertainty.

@ The expanded uncertainty is significant in relation to the unit specification and it is therefore not possible to demonstrate conformance unambiguously.

\$ The measurements marked thus do not lie within the scope of the Laboratory's prevailing UKAS accreditation but are reported herein for completeness.

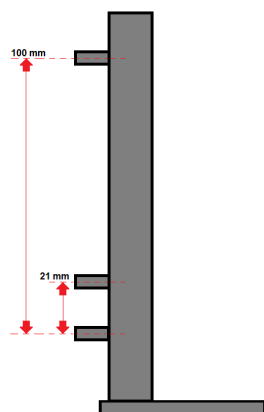
Basis of Test: Measured Results.

This instrument has been measured using laboratory standards for the distance between the laser sensors operating the stopwatch (Figure 1), with the datum laser being at the bottom of the column. Repeat readings were taken to determine the accuracy and the measured results reported in the following tables:

Position reference	Nominal length (mm)	Start position (mm)	Stop position (mm)	Measured length (mm)
1	21	103.270	124.403	21.133
2	21	103.276	124.423	21.147
3	21	103.283	124.413	21.130
4	21	103.285	124.412	21.127
5	21	103.283	124.415	21.132
Mean		103.279	124.413	21.134
Maximum variation		0.015	0.020	0.020

Position reference	Nominal length (mm)	Start position (mm)	Stop position (mm)	Measured length (mm)
1	100	103.276	203.806	100.530
2	100	103.268	203.790	100.522
3	100	103.278	203.801	100.523
4	100	103.291	203.824	100.533
5	100	103.272	203.791	100.519
Mean		103.277	203.802	100.525
Maximum variation		0.023	0.034	0.014

Figure 1



The dovetail bracket (Figure 2 & 3) was measured for the distance between faces with the following results:

Feature	Position	Nominal Distance (mm)	Measured Results (mm)	Mean Value (mm)	Parallelism (mm)
Upwards Distance	1	20.0	19.979	19.982	0.013
	2		19.989		
	3		19.976		
	4		19.982		
	5		19.986		

Feature	Position	Nominal Distance (mm)	Measured Results (mm)	Mean Value (mm)	Parallelism (mm)
Downwards Distance	1	20.0	19.921	19.922	0.045
	2		19.912		
	3		19.916		
	4		19.908		
	5		19.953		

Figure 2

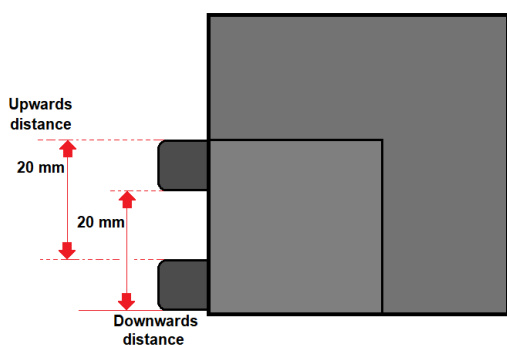
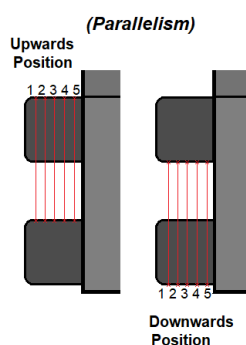


Figure 3



Uncertainty of measurement : ± 0.003 mm (Linear)
 ± 0.005 mm (Laser Displacement)

Calibration Procedure : QCD/CALP/18
 Our Reference : AFD466710

Calibration Procedure: The instrument was placed in the laboratory for 24 hours prior to calibration for stabilisation purposes. Tests were made by comparison with a standard counter at the given indications. The equipment was calibrated in a controlled environment using devices having known and traceable values. The uncertainties reported refer to the measured values only with no account being taken of the instrument ability to maintain its calibration.

Time Checks

<u>UUT Indication</u>	<u>Standard Indication</u>	<u>Standard Equivalent</u>
00 hr 00 min 04.951 sec	4.938 sec	0 min 04.938 sec
00 hr 00 min 10.009 sec	9.997 sec	0 min 9.997 sec
00 hr 00 min 30.059 sec	30.044 sec	0 min 30.044 sec
00 hr 01 min 00.066 sec	60.026 sec	1 min 00.026 sec
00 hr 05 min 00.123 sec	300.131 sec	5 min 00.131 sec
00 hr 10 min 00.011 sec	600.018 sec	10 min 00.018 sec

The overall uncertainty in the measurement was:

± 0.03 seconds of indication

Specification taken from:

Measured results only

End of Results