

# CERTIFICATE OF CALIBRATION

ISSUED BY: **M K I S** CALIBRATION COMPANY

DATE OF ISSUE: 18 October 2018

CERTIFICATE NUMBER: 3112



0236

STANDARDS LABORATORY

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# MKIS

10 Potters Lane  
Kiln Farm



Calibration Company

Milton Keynes  
MK11 3HE

Tel: 01908 568250  
Fax: 01908 564661

Approved  
Signatories

A.J.Cox   
R Younger   
C Kemp

Signature

|                        |                    |
|------------------------|--------------------|
| Equipment Description: | Optical Tachometer |
| Manufacturer:          | Standard           |
| Type:                  | AT-6               |
| Serial Number:         | 12078446           |
| Order Number:          | NS 21935           |
| Customer:              | DJB Labcare        |
| Location:              | Newport Pagnall    |
| Date Received:         | 16 October 2018    |
| Date Calibrated:       | 18 October 2018    |

The instrument was kept in the laboratory environment for 24 hours, to allow the instrument to stabilise, prior to the tests being carried out.

The ambient temperature and relative humidity throughout the test was  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and  $50\% \pm 20\%$  respectively.

The uncertainties reported refer to the applied and obtained values only, with no account being taken of the instruments ability to maintain its calibration.

Remarks: No adjustments were made.

**MKIS UKAS Calibration Procedures Used:- 5 (5.6)**

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UKAS Accredited Calibration Laboratory No. 0236

Certificate Number: 3112

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| Applied Value | Equivalent Value | Indicated Value |
|---------------|------------------|-----------------|
| 100.003 ms    | 599.98 RPM       | 600.0 RPM       |
| 59.994 ms     | 1000.1 RPM       | 1000 RPM        |
| 24.006 ms     | 2499.4 RPM       | 2499 RPM        |
| 12.000 0 ms   | 5000.0 RPM       | 5000 RPM        |
| 8.000 09 ms   | 7499.9 RPM       | 7500 RPM        |
| 5.999 92 ms   | 10 000.1 RPM     | 10 000 RPM      |
| 4.000 08 ms   | 14 999.7 RPM     | 15 000 RPM      |
| 3.000 09 ms   | 19 999.4 RPM     | 19 999 RPM      |
| 2.399 89 ms   | 25 001.1 RPM     | 25 001 RPM      |
| 2.000 10 ms   | 29 998.5 RPM     | 29 999 RPM      |

The measurement uncertainties were:

Time  $\pm 0.1 \text{ RPM} + 1 \text{ LSD}$

END

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor  $k = 2$ , providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.