

Z E R T I F I K A T

Messmittelüberwachung nach

VDI / VDE 2617 – DIN / ISO 9001

einer 3-D Koordinatenmeßmaschine

Stiefelmayer manuell

Seriennummer:	38470689
Software:	Calypso/Holos-manuell
Tastsystem:	Renishaw MIH mit TP6

Überprüfungsnormal

Renishaw Laser XL80

nach Kalibrierzertifikat

9L1547-100323-00

Trossingen, den 19.04.2017

Martin Knauer

Product
Serial number
Date of calibration

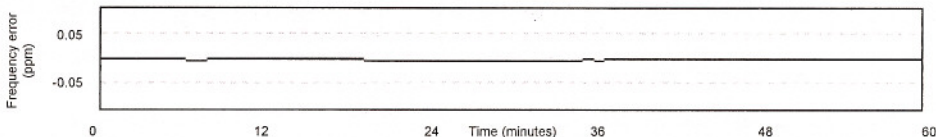
XL-80 laser
9L1547
23rd March 2010

RENISHAW
apply innovation™

Calibration certificate

Specification *Vacuum wavelength* 0.6329905770 $\mu\text{m} \pm 0.05$ ppm
Equivalent frequency 473612829.2 MHz

Measured values and uncertainties of calibration



Results	Value (MHz)	Value (ppm)
Laser frequency:	473612828.9	-
Laser frequency error:	-0.3	-0.001
Stability (peak-to-peak):	2.4	0.005
Maximum laser frequency error:	-1.5	-0.003
Uncertainty of measurement (k=2):	± 4.6	± 0.01

Reference standards	Ref. no.	UKAS	Certificate no.	Calibration date
Iodine stabilised HeNe laser	MTE/814	NPL	LL0301/0617	30 th November 2006
Frequency counter	MTE/A162	0126	320757	23 rd June 2009
Reference HeNe laser	GOLDSTD6	-	-	15 th March 2010

Laser measurement system accuracy: Based on this calibration, when this XL-80 laser is used with a Renishaw XC-80 compensator and a Renishaw air temperature sensor (*both within specification*) the laser measurement system accuracy (k=2) in linear measurement mode will be within: ± 0.5 ppm (see the system manual for details).

Authorised signature	Signatory	Position	Issue date
	W. Lee	Divisional Director	24 th March 2010

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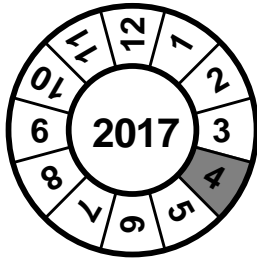
Renishaw plc
Laser & Calibration Products Division
Bath Road, Woodchester
Stroud
Gloucestershire
GL5 5EY
United Kingdom
Tel +44 (0) 1453 524524

Certificate number
9L1547-100323-00

L-9908-0888/03



Kalibriert am:



Kalibriert von: Martin Knauer

Kalbrierdatum:
19.04.2017

**Empfohlenes
Kalibrierintervall**

1/2 jährlich

2 jährlich

Knauer IMt Qualität

Messmittelüberwachung

nach

VDI/VDE 2617 - DIN/ISO 9001

KMG-Typ: Stiefelmayer

Fabr. Nr. : 38470689

Ihr Ansprechpartner:

2017

Knauer IMt



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Knauer IMt - Technischer Service