

# MUSTER - SAMPLE

## Werkskalibrierschein

*Proprietary Calibration Certificate*

Kalibrierzeichen: 1510001425

*Calibration mark:*

Gegenstand <i>Object</i>	Strichmaßstab	Die Kalibrierung erfolgt durch Vergleich mit Bezugsnormalen, die in einer innerhalb der European co-operation for Accreditation
Hersteller <i>Manufacturer</i>	Kitotec GmbH	(EA) anerkannten Kalibrierstelle kalibriert wurden und damit rückgeführt sind auf die nationalen Normale mit denen die Physikalisch-Technische Bundesanstalt (PTB) die physikalischen Einheiten in Übereinstimmung mit den internationalen Einheitssystem (SI) darstellt. Für die Kalibrierung und deren Dokumentation trägt der Aussteller dieses Kalibrierscheines die alleinige Verantwortung.
Typ <i>Type</i>	300mm/0.1	
Fabrikat/Serien-Nr. <i>Serial number</i>	212414001	
Auftraggeber <i>Customer</i>	KITOTEC GMBH  Carl-Zeiss-Str. 11 D-53340 Meckenheim	<i>The calibration is performed by comparison with reference standards which are calibrated by a Calibration laboratory whit in the European co-operation for Accreditation (EA) and thus traceable to measurement standards maintaind by the Physikalisch-Technische Bundesanstalt (PTB) for realization of the physical units</i>
Auftragsnummer <i>Order No.</i>	22807669	
Anzahl der Seiten des Kalibrierscheins <i>Number of pages of the certificate</i>	2 Seiten	<i>according to the international system of units (SI). The issuing company is solely res-ponsible for the performance and document-tation of the calibration.</i>
Datum der Kalibrierung <i>Date of calibration</i>	14.06.2021	Der empfohlene Prüftermin wurde auf Kundenwunsch eingefügt.
empfohlener Prüftermin Nextcheck	14.06 .2022	The status refers to the result of the calibration without taking the measurement uncertainty balance.
Status Status	In Ordnung	

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen bedürfen der Genehmigung sowohl der Deutschen Akkreditierungsstelle GmbH als auch des ausstellenden Kalibrierlaboratoriums. Kalibrierscheine ohne Unterschrift haben keine Gültigkeit.

*This calibration certificate may not be reproduced other than in tu// except with the permission of both the Deutsche Akkreditierungsstelle GmbH and the issuing laboratory. Calibration certificates without signature are not valid.*

Datum

Bearbeiter

Unterschrift

*Date*

*Person in charge*

*Signature*

14.06.2021



Calibration item            Glas ruler  
300mm/0.1

Kalibrierzeichen : 1510001425

Calibration mark:

Calibration procedure            For each graduation to be checked, take its left and right edge. This is used to calculate the middle of the division, with the middle of the first division being set to zero. At least 11 tick marks, or more according to customer requirements, are to be recorded. This results in the distances between the tick marks starting from the first tick mark.

Measurement conditions            The calibration item was kept in the calibration room for at least one day for temperature compensation. The calibration was carried out on a video measuring microscope. During calibration, the scale is placed on a flat surface without forcing it. The graduation marks are illuminated with incident light or transmitted light (glass scales) and a 250-fold magnification. Traceable to the laser interferometer system, calibration certificate no. 111-12248, 4605-D-K-15202-01-00-2016-02

Environmental conditions            Temperature            20°C +/- 1°C  
Relative humidity        50 % +/- 20 %

Remarks

set point    lower tolerance    actual value    upper tolerance    deviation

**Calibration results:**

Deviation display	Position	Sollwert	UT	Istwert	OT	Abweichung
		0,0000 mm	-0,0060 mm	0,0000 mm	0,0060 mm	0,0000 mm
	2	10,0000 mm	9,9940 mm	10,0005 mm	10,0060 mm	0,0005 mm
	3	20,0000 mm	19,9940 mm	19,9995 mm	20,0060 mm	-0,0005 mm
	4	30,0000 mm	29,9940 mm	29,9993 mm	30,0060 mm	-0,0007 mm
	5	40,0000 mm	39,9940 mm	40,0006 mm	40,0060 mm	0,0005 mm
	6	50,0000 mm	49,9940 mm	50,0013 mm	50,0060 mm	0,0013 mm
	7	60,0000 mm	59,9940 mm	60,0027 mm	60,0060 mm	0,0027 mm
	8	70,0000 mm	69,9940 mm	70,0013 mm	70,0060 mm	0,0013 mm
	9	80,0000 mm	79,9940 mm	80,0020 mm	80,0060 mm	0,0020 mm
	10	90,0000 mm	89,9940 mm	89,9997 mm	90,0060 mm	-0,0003 mm
	11	100,0000 mm	99,9940 mm	99,9996 mm	100,0060 mm	-0,0005 mm
	12	110,0000 mm	109,9940 mm	109,9994 mm	110,0060 mm	-0,0006 mm
	13	120,0000 mm	119,9940 mm	119,9998 mm	120,0060 mm	-0,0002 mm
	14	130,0000 mm	129,9940 mm	129,9994 mm	130,0060 mm	-0,0007 mm
	15	140,0000 mm	139,9940 mm	139,9999 mm	140,0060 mm	-0,0001 mm
	16	150,0000 mm	149,9940 mm	150,0018 mm	150,0060 mm	0,0017 mm
	17	160,0000 mm	159,9940 mm	160,0027 mm	160,0060 mm	0,0026 mm
	18	170,0000 mm	169,9940 mm	170,0026 mm	170,0060 mm	0,0026 mm
	19	180,0000 mm	179,9940 mm	180,0018 mm	180,0060 mm	0,0017 mm
	20	190,0000 mm	189,9940 mm	190,0032 mm	190,0060 mm	0,0032 mm
	21	200,0000 mm	199,9940 mm	200,0021 mm	200,0060 mm	0,0020 mm
	22	210,0000 mm	209,9940 mm	210,0004 mm	210,0060 mm	0,0003 mm
	23	220,0000 mm	219,9940 mm	220,0022 mm	220,0060 mm	0,0022 mm
	24	230,0000 mm	229,9940 mm	230,0004 mm	230,0060 mm	0,0003 mm
	25	240,0000 mm	239,9940 mm	239,9997 mm	240,0060 mm	-0,0003 mm
	26	250,0000 mm	249,9940 mm	250,0001 mm	250,0060 mm	0,0000 mm
	27	260,0000 mm	259,9940 mm	260,0005 mm	260,0060 mm	0,0004 mm
	28	270,0000 mm	269,9940 mm	270,0001 mm	270,0060 mm	0,0001 mm
	29	280,0000 mm	279,9940 mm	280,0010 mm	280,0060 mm	0,0010 mm
	30	290,0000 mm	289,9940 mm	290,0001 mm	290,0060 mm	0,0001 mm
	31	300,0000 mm	299,9940 mm	299,9993 mm	300,0060 mm	-0,0007 mm

Measuring uncertainty =  $3 \mu\text{m} + 10 \cdot 10^{-6} \checkmark$

Measuring uncertainty = The specified is the expanded measurement uncertainty, which results from the standard measurement uncertainty by multiplying it by the coverage factor k = 2. It was made according to EA-4/02 M: 2013 determined. The value of the measured variable lies with a probability of 95% in the assigned value interval.

End of calibration protocol