

CALIBRATION CERTIFICATE

1809-11262

Customer information

Client : ASCO instrument
Contact : Dhr M. Paolo DE MACEDO
Address : 2 place des dix toises
Chateaufort 78117
France
Reference client :
Reference Trescal : 201818929/18

Instrument information

Make / type : POSITEK / X138.100AL200NPRTZ000
Description : Displacement transducer
Range : 0 .. 100 mm
Serial number : 67045/2018
Identification number : D3
Accuracy :

Date of calibration : 26 September 2018

Method of calibration

P1-02-G.005 Calibration of linear gauges

The calibration of displacement transducers such as dial gauges, levers, etc. consists of a visual examination of the instrument and series of measurements. Firstly, we examine the state of the transducer, e.g. its running qualities and the readability of its indicator, the functionality of the zero and tolerance boundaries, the solidity of the hands/indices. Secondly, we measure the repeatability, the reversibility and the total deviation.

Environmental conditions (limits during measurements)

Ambient temperature : $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$
Relative humidity : $45\%\text{rh} \pm 20\%\text{rh}$

Used reference

The equipment used is traceable to National and/or International standards.
R2868/19 Length measuring machine Cert.180903723

Note

Tested with Unitronics Unistream read-out/software.

Issue date: 26 September 2018

Technician
Koen Groffen



Head of the laboratory
Luc Van Pelt



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Unless otherwise stated, the calibration was performed at the address mentioned in the footnote.

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Visual inspection	OK / NO	Remark
Readability	OK	Digital
Tentacle (shape)	OK	
LED-segments	-	
Spindle movement	OK	
Wear & Tear / corrosion	OK	

	Reference value	Instrument value	Difference	Uncertainty \pm	Units
1	0,00	0,00	0,00	0,07	mm
2	9,50	9,60	0,10	0,07	mm
3	18,80	18,90	0,10	0,07	mm
4	37,00	37,20	0,20	0,07	mm
5	45,60	45,80	0,20	0,07	mm
6	50,00	50,20	0,20	0,07	mm
7	54,30	54,60	0,30	0,07	mm
8	63,50	63,80	0,30	0,07	mm
9	81,10	81,40	0,30	0,07	mm
10	90,80	91,00	0,20	0,07	mm
11	100,00	100,10	0,10	0,07	mm
12	90,80	91,00	0,20	0,07	mm
13	81,10	81,40	0,30	0,07	mm
14	63,50	63,80	0,30	0,07	mm
15	54,30	54,60	0,30	0,07	mm
16	50,00	50,20	0,20	0,07	mm
17	45,60	45,80	0,20	0,07	mm
18	37,00	37,20	0,20	0,07	mm
19	18,80	18,90	0,10	0,07	mm
20	9,50	9,60	0,10	0,07	mm
21	0,00	0,00	0,00	0,07	mm

Description	Tolerance	Calculated value	Units	
Repeatability (fw)	-	0,00	mm	-
Reverseability (fu)	-	0,00	mm	-
Error (fe)	-	0,30	mm	-
Total error (fges)	-	0,30	mm	-

The stated uncertainty is that of the entire set-up including the object under test.

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

The uncertainty is calculated following EA-4/02 in accordance with the requirements of the ISO/IEC 17025.