

## CALIBRATION CERTIFICATE

issued by an Accredited Calibration Laboratory

Certificate number  
1267052-1Edition  
1Date of issue  
8 October 2019Calibration performed by  
Anders LersäterCalibration approved by  
Peter Pettersson, TechnicianPage (of)  
1 (4)**CUSTOMER****Hettich Labinstrument AB**  
**Wengarn Företagscenter**  
193 91 SIGTUNA  
Sverige**DEVICE UNDER TEST****Pocket Strobe, Testo, 476**  
MIO-id: M634238 Serial No: 1705-0036 Id No: -**COMMISSION**

Accredited calibration

**CALIBRATION PROCEDURE**

147328-54070-1

**DATE OF RECEIPT**

7 October 2019

**DATE OF CALIBRATION**

8 October 2019

**LOCATION OF CALIBRATION**

Element Metech AB, PAA, Arboga

**AMBIENT CONDITIONS**

Temperature: (23 ± 1) °C, Relative Humidity: (45 ± 10) %

**TRACEABILITY**

The calibration is performed with the reported reference equipment. Traceability to relevant primary standards is established by the corresponding Calibration Reports.

**SPECIFICATION**

Instruction Manual, Stroboscope, Testo 476, 0971.4760/01/T/dr, 27.10.2006, FS00798

**STATUS AS RECEIVED**

COMPLIANCE (P) - All measured values were within the specified limits, when the measurement uncertainty is taken into account

**STATUS AS SHIPPED**

COMPLIANCE (P) - All measured values were within the specified limits, when the measurement uncertainty is taken into account

**REFERENCE EQUIPMENT**Fluke PM6681  
SAAB Metech MAL 829  
SAAB Metech Datum ET6000+Symmetricom 8040C

MIO-id	Calibration Report	Next Calibration
22128	1211257-1	Apr 2020
24716	1175592-1	Dec 2019
M321530	1220672-1	Nov 2019

The measurement procedures and measuring equipment used have been selected to provide an uncertainty of measurement of less than a third of the specification and to ensure that the measurements are traceable to the International System of Units (SI), where possible. The uncertainty of measurement has been determined in accordance with EA Publication EA-4/02 and applies only to the measured result and do not imply anything regarding the long-term stability of the device under test. The compliance with specification has been determined in accordance with ILAC publication ILAC-G8:03/2009 and is only valid for the instrument calibrated. The statement of compliance with specification is based on a 95% coverage probability for the expanded uncertainty of the measurement results on which the decision of compliance is based.

Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. The accredited laboratory activities meet the requirements in ISO/IEC 17025:2005. Swedish Board for Accreditation and Conformity Assessment (SWEDAC) is one of the signatories to the Multilateral Agreements of the European co-operation for Accreditation (EA) for mutual recognition of calibration certificates and test reports.

This calibration certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. Calibration certificates without signature are not valid.

## COMPLIANCE WITH SPECIFICATION

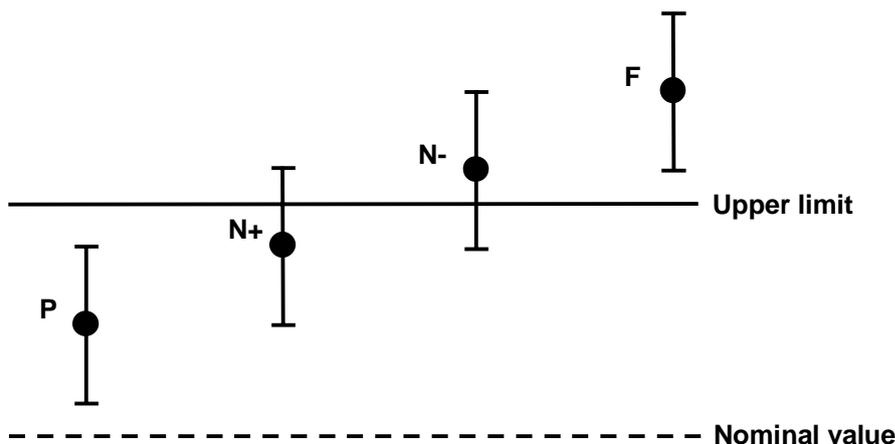
The compliance with specification has been determined in accordance with ILAC publication ILAC-G8:03/2009. The statement of compliance is based on a 95 % coverage probability for the expanded uncertainty and is only valid at the tested points.

The status of compliance with specification is reported as:

- P COMPLIANCE - The measured value is within the specified limits, when the measurement uncertainty is taken into account.
- N+ INDETERMINATE - It is not possible to state compliance using a 95 % coverage probability for the expanded uncertainty, although the measured value is within the specified limits, i.e. the measured value is within the specified limits by a margin less than the measurement uncertainty.
- N- INDETERMINATE - It is not possible to state non-compliance using a 95 % coverage probability for the expanded uncertainty, although the measured value is outside the specified limits, i.e. the measured value is outside the specified limits by a margin less than the measurement uncertainty.
- F NON-COMPLIANCE - The measured value is outside the specification limits, when the measurement uncertainty is taken into account.

A compilation for all performed tests of the status as received, i.e. before any adjustment/repair, and the status as shipped, i.e. after any adjustment/repair, is reported on the first page.

Any statement of compliance with specification is based on the model above and the final judgement, if the device under test conforms to the requirements for its intended use, has to be made by the customer.



Other terms that may be used:

- NS The measured point is measured but has no specified limits (and not tested for compliance with specification).
- NT The measured point is not measured (and not tested for compliance with specification).

## UNCERTAINTY OF MEASUREMENT

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95 %.

If this is not the case, the actual coverage factor ( $k$ ), distribution ( $D$ ) and effective degrees of freedom ( $\nu$ ) will be stated together with the reported expanded uncertainty of measurement.

Any quoted uncertainty measurement applies only to the measured value and do not imply anything regarding the long-term stability of the device under test.

The standard uncertainty of measurement has been determined in accordance with EA Publication EA-4/02.

Certificate number  
1267052-1  
Date of calibration  
8 Oct 2019

MIO-id  
M634238  
Id No  
-

Device under test  
Pocket Strobe, Testo, 476  
Serial No  
1705-0036

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### SUMMARY OF ALL PERFORMED TESTS

Summary of the status of each performed test, see previous page for explanation of the reported status. Any statements reported inside brackets (...) indicates the status before any adjustment or repair of the device under test.

Number	Description	Status
1	Revolutions per minute (RPM)	P

## RESULTS OF MEASUREMENT

### 1 Revolutions per minute (RPM)

Specification: Instruction Manual, Stroboscope, Testo 476, Manual No. 0971.4760/01/T/dr/27.10.2006 (Reg. No. FS00798).

Measurement Procedure: Measure frequency with Frequency Counter, T/2005:PMM3372

Nominal Value [r.p.m.]	Lower Limit [r.p.m.]	Measured Value [r.p.m.]	Uncertainty [±r.p.m.]	Upper Limit [r.p.m.]	Result
900,00	898,91	<b>900,12792</b>	0,00033	901,09	P
1500,00	1498,85	<b>1500,22563</b>	0,00043	1501,15	P
3000,0	2998,7	<b>3000,4516</b>	0,0021	3001,3	P
6000,0	5998,4	<b>6000,9001</b>	0,0035	6001,6	P
9000,0	8998,1	<b>9001,189</b>	0,015	9001,9	P
11000,0	10997,9	<b>11001,957</b>	0,018	11002,1	P
12500,0	12497,75	<b>12501,884</b>	0,033	12502,25	P