Annex to declaration of accreditation (scope of accreditation)
Normative document: EN ISO/IEC 17025:2005
Registration number: **K 152**

of **Caliz B.V.**

This annex is valid from: **03-10-2018** to **01-02-2021** Replaces annex dated: **04-10-2017**

## Location(s) where activities are performed under accreditation

### Head Office

Nederhof 3
5258 CB
Berlicum
The Netherlands

| Location | Abbreviation/ location code |
|---|---|
| Nederhof 3<br>5258 CB<br>Berlicum<br>The Netherlands | BE |

| HCS code | Measured quantity, Range | Frequency | CMC[1] | Remarks | Location |
|---|---|---|---|---|---|
| LF 0 0 | DC/LF quantities | | | | |
| LF 1 0 | Direct voltage | | | | |
| LF 1 1 | Direct voltage | | | | BE |
| | 0 µV – 10 mV | | 0.6 µV | Measuring and generating | |
| | 10 mV – 200 mV | | $0.6\ \mu V - 6.3 \cdot 10^{-6} \cdot U$ | | |
| | 200 mV – 2 V | | $(6.2 \cdot 10^{-6} - 3.5 \cdot 10^{-6}) \cdot U$ | | |
| | 2 V – 20 V | | $(5.5 \cdot 10^{-6} - 3.4 \cdot 10^{-6}) \cdot U$ | | |
| | 20 V – 200 V | | $(7.0 \cdot 10^{-6} - 5.0 \cdot 10^{-6}) \cdot U$ | | |
| | 200 V – 1050 V | | $(7.8 \cdot 10^{-6} - 5.4 \cdot 10^{-6}) \cdot U$ | | |
| | 1050 V – 1100 V | | $(3.0 \cdot 10^{-3} - 2.9 \cdot 10^{-3}) \cdot U$ | Measuring only | |

This annex has been approved by the Board of the Dutch Accreditation Council, on its behalf,

J.A.W.M. de Haas
Director of Operations

[1] Calibration and Measurement Capability (CMC): Demonstrated measurement uncertainty, with coverage probability of 95%, in a given measurement point or measurement range. Measurement uncertainty, *U*, is calculated according to EA-4/02 "*Evaluation* of the Uncertainty of Measurement in Calibration".

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|---|---|---|---|---|---|
| LF 1 3 | Direct high voltage | | | | BE |
| | 1100 V – 10 kV | | $(8.9\cdot10^{-3} – 4.1\cdot10^{-3})\cdot U$ | Measuring only | |
| | 10 kV – 40 kV | | $(7.3\cdot10^{-3} – 6.5\cdot10^{-3})\cdot U$ | | |
| LF 2 0 | Direct current | | | | |
| LF 2 1 | Direct Current | | | | BE |
| | 1 nA – 200 µA | | $0.5\ nA – 1.2\cdot10^{-5}\cdot I$ | Measuring and generating | |
| | 200 µA – 2 mA | | $(3.2\cdot10^{-5} – 1.2\cdot10^{-5})\cdot I$ | | |
| | 2 mA – 20 mA | | $(3.3\cdot10^{-5} – 1.2\cdot10^{-5})\cdot I$ | | |
| | 20 mA – 200 mA | | $(8.5\cdot10^{-5} – 4.4\cdot10^{-5})\cdot I$ | | |
| | 200 mA – 2 A | | $(2.9\cdot10^{-4} – 2.1\cdot10^{-4})\cdot I$ | | |
| | 2 A – 20 A | | $(6.7\cdot10^{-4} – 4.7\cdot10^{-4})\cdot I$ | | |
| | 20 A – 30 A | | $(4.4\cdot10^{-3} – 4.1\cdot10^{-3})\cdot I$ | Measuring only | |
| LF 3 0 | Alternating voltage | | | | |
| LF 3 1 | Alternating voltage | | | | BE |
| | 10 mV – 200 mV | 10 Hz – 40 Hz | $(6.0\cdot10^{-4} – 1.7\cdot10^{-4})\cdot U$ | Measuring and generating | |
| | | 40 Hz – 100 Hz | $(5.8\cdot10^{-4} – 1.5\cdot10^{-4})\cdot U$ | | |
| | | 100 Hz – 2 kHz | $(4.1\cdot10^{-4} – 2.5\cdot10^{-4})\cdot U$ | | |
| | | 2 kHz – 10 kHz | $(5.8\cdot10^{-4} – 1.5\cdot10^{-4})\cdot U$ | | |
| | | 10 kHz – 30 kHz | $(1.3\cdot10^{-3} – 4.0\cdot10^{-4})\cdot U$ | | |
| | | 30 kHz – 100 kHz | $(3.1\cdot10^{-3} – 9.3\cdot10^{-4})\cdot U$ | | |
| | 200 mV – 20 V | 10 Hz – 40 Hz | $(2.3\cdot10^{-4} – 1.3\cdot10^{-4})\cdot U$ | Measuring and generating | |
| | | 40 Hz – 100 Hz | $(2.1\cdot10^{-4} – 1.1\cdot10^{-4})\cdot U$ | | |
| | | 100 Hz – 2 kHz | $(1.9\cdot10^{-4} – 8.3\cdot10^{-5})\cdot U$ | | |
| | | 2 kHz – 10 kHz | $(2.1\cdot10^{-4} – 1.1\cdot10^{-4})\cdot U$ | | |
| | | 10 kHz – 30 kHz | $(4.6\cdot10^{-4} – 2.6\cdot10^{-4})\cdot U$ | | |

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|---|---|---|---|---|---|
| | | 30 kHz – 100 kHz | $(1.7\cdot10^{-3} – 7.0\cdot10^{-4})\cdot U$ | | |
| | | 100 kHz – 300 kHz | $(1.5\cdot10^{-2} – 4.6\cdot10^{-3})\cdot U$ | | |
| | | 300 kHz – 1 MHz | $(1.3\cdot10^{-1} – 2.3\cdot10^{-2})\cdot U$ | From 3.3 V / 500 kHz measuring only | |
| | 20 V – 200 V | 10 Hz – 40 Hz | $(2.3\cdot10^{-4} – 1.3\cdot10^{-4})\cdot U$ | Measuring and generating | |
| | | 40 Hz – 100 Hz | $(2.1\cdot10^{-4} – 1.1\cdot10^{-4})\cdot U$ | | |
| | | 100 Hz – 2 kHz | $(1.9\cdot10^{-4} – 8.5\cdot10^{-5})\cdot U$ | | |
| | | 2 kHz – 10 kHz | $(2.1\cdot10^{-4} – 1.1\cdot10^{-4})\cdot U$ | | |
| | | 10 kHz – 30 kHz | $(4.6\cdot10^{-4} – 2.6\cdot10^{-4})\cdot U$ | | |
| | | 30 kHz – 100 kHz | $(1.7\cdot10^{-3} – 7.0\cdot10^{-4})\cdot U$ | From 33 V / 100 kHz measuring only | |
| | | 100 kHz – 300 kHz | $(1.5\cdot10^{-2} – 4.6\cdot10^{-3})\cdot U$ | Measuring only | |
| | 200 V – 1050 V | 40 Hz – 10 kHz | $(1.7\cdot10^{-4} – 3.8\cdot10^{-4})\cdot U$ | From 330 V, 5 kHz measuring only | |
| | | 10 kHz – 30 kHz | $(1.8\cdot10^{-3} – 3.6\cdot10^{-4})\cdot U$ | Measuring only | |
| | 1050 V – 1100 V | 50 Hz – 60 Hz | $(3.0\cdot10^{-3} – 2.9\cdot10^{-3})\cdot U$ | | |
| LF 3 3 | Alternating high voltage | | | | BE |
| | 1100 V – 7 kV | 50 Hz – 60 Hz | $(1.2\cdot10^{-2} – 7.3\cdot10^{-3})\cdot U$ | Measuring only | |
| | 7 kV – 28 kV | 50 Hz – 60 Hz | $(8.4\cdot10^{-3} – 7.4\cdot10^{-3})\cdot U$ | | |
| LF 4 0 | Alternating current | | | | |
| LF 4 1 | Alternating current | | | | BE |
| | 10 µA - 200 µA | 10 Hz – 5 kHz | $(2.6\cdot10^{-3} – 4.3\cdot10^{-4})\cdot I$ | Measuring and generating | |
| | 200 µA – 200 mA | 10 Hz – 10 kHz | $(1.4\cdot10^{-3} – 4.1\cdot10^{-4})\cdot I$ | | |
| | | 10 kHz – 30 kHz | $(1.9\cdot10^{-3} – 8.1\cdot10^{-4})\cdot I$ | | |
| | 200 mA – 2 A | 10 Hz – 2 kHz | $(1.8\cdot10^{-3} – 8.1\cdot10^{-4})\cdot I$ | | |
| | | 2 kHz – 10 kHz | $(2.0\cdot10^{-3} – 9.3\cdot10^{-4})\cdot I$ | | |
| | | 10 kHz – 30 kHz | $(4.6\cdot10^{-3} – 3.6\cdot10^{-3})\cdot I$ | | |

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|---|---|---|---|---|---|
| | 2 A – 20 A | 10 Hz – 2 kHz | $(2.1\cdot10^{-3} – 1.1\cdot10^{-3})\cdot I$ | | |
| | | 2 kHz – 10 kHz | $(4.1\cdot10^{-3} – 3.0\cdot10^{-3})\cdot I$ | | |
| | 20 A – 30 A | 20 Hz – 400 Hz | $(4.4\cdot10^{-3} – 4.1\cdot10^{-3})\cdot I$ | Measuring only | |
| LF 6 0 | Impedance DC/LF | | | | |
| LF 6 1 | Resistance | | | | |
| LF 6 2 | DC Resistance | | | | BE |
| | 10 μΩ – 2 Ω | | 10 μΩ – $1.4\cdot10^{-5}\cdot R$ | Measuring and generating | |
| | 2 Ω – 20 Ω | | $(1.6\cdot10^{-5} – 9.3\cdot10^{-6})\cdot R$ | | |
| | 20 Ω – 20 kΩ | | $(1.1\cdot10^{-5} – 8.7\cdot10^{-6})\cdot R$ | | |
| | 20 kΩ – 200 kΩ | | $(1.1\cdot10^{-5} – 8.9\cdot10^{-6})\cdot R$ | | |
| | 200 kΩ - 2 MΩ | | $(1.5\cdot10^{-5} – 1.0\cdot10^{-5})\cdot R$ | | |
| | 2 MΩ - 20 MΩ | | $(2.0\cdot10^{-5} – 1.7\cdot10^{-5})\cdot R$ | HI Voltage Measure mode | |
| | 20 MΩ – 200 MΩ | | $(8.1\cdot10^{-5} – 4.7\cdot10^{-5})\cdot R$ | | |
| | 200 MΩ – 2 GΩ | | $(6.3\cdot10^{-4} – 1.5\cdot10^{-4})\cdot R$ | | |
| | 2 GΩ – 20 GΩ | | $(6.4\cdot10^{-3} – 1.2\cdot10^{-3})\cdot R$ | | |
| LF 6 4 | Capacity | | | | BE |
| | 0,19 nF – 330 nF | 1 kHz | $(6.7\cdot10^{-2} – 4.0\cdot10^{-3})\cdot C$ | Generating | |
| | 330 nF – 11 μF | 100Hz | $(6.7\cdot10^{-3} – 4.0\cdot10^{-3})\cdot C$ | | |
| | 110 μF – 110 mF | “quasi DC” | $(8.5\cdot10^{-3} – 1.4\cdot10^{-2})\cdot C$ | Generating<br>Charge and discharge | |
| | | | | | |
| TF 0 0 | Time and frequency | | | | |
| TF 2 0 | Relative Time | | | | |
| TF 2 1 | Frequency | | | | BE |
| | | 0.1 Hz – 120 MHz | $5.8\cdot10^{-6}\cdot f$ | Measuring | |

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|---|---|---|---|---|---|
| | | 0.01 Hz – 2 MHz | $(5.8 \cdot 10^{-4} – 3.1 \cdot 10^{-6}) \cdot f$ | Generating (normal output) | |
| | | ≥ 6 rpm | $5.8 \cdot 10^{-6} \cdot rpm$ + 1 digit | Tachometer (optical) | |
| | | 10 – 99.99 rpm<br>100 – 999.9 rpm<br>1000 – 9000 rpm | 0.03 rpm + 1 digit<br>0.3 rpm + 1 digit<br>3 rpm + 1 digit | Tachometer (mechanical) | |
| | | 0.17 Hz – 1.67 Hz<br>1.67 Hz – 16.67 Hz<br>16.67 Hz – 1667 Hz | $5.8 \cdot 10^{-6} \cdot f$ + 1 mHz<br>$5.8 \cdot 10^{-6} \cdot f$ + 3 mHz<br>$5.8 \cdot 10^{-6} \cdot f$ + 30 mHz | Stroboscope | |
| TF 2 2 | Time interval | | 0.04 s/d | Digital stopwatch | BE |
| | | | 0.6 s/d | Mechanical stopwatch | |
| | | | | | |

Remarks:

By generating alternating voltages applies: Voltage·Frequency < $2{,}2 \cdot 10^7$ V·Hz

By measuring alternating voltages applies: Voltage·Frequency < $8 \cdot 10^7$ V·Hz

The calibrations in the electrical laboratory are being carried out at an ambient temperature of nominal 23 °C.

| HCS code | Measured quantity, Instrument, Measure | Range | CMC[2] | Remarks | Location |
|---|---|---|---|---|---|
| DM 0 0 | Dimensional quantities | | | | |
| DM 1 0 | Length gauges | | | | BE |
| | Steel | ≤ 100 mm | 0.075 µm + $0.85 \cdot 10^{-6}$·/ | Using a comparator | |
| | Ceramics | ≤ 100 mm | 0.075 µm + $0.8 \cdot 10^{-6}$·/ | | |
| | Tungsten carbide | ≤ 100 mm | 0.075 µm + $2.6 \cdot 10^{-6}$·/ | | |
| | Steel | ≤ 600 mm | 0.4 µm + $1.0 \cdot 10^{-6}$·/ | Using an ULM | |
| | Ceramics | ≤ 600 mm | 0.4 µm + $1.4 \cdot 10^{-6}$·/ | | |
| | Tungsten carbide | ≤ 600 mm | 0.4 µm + $3.8 \cdot 10^{-6}$·/ | | |
| | Internal set gauges | ≤ 600 mm | 0.6 µm + $5.3 \cdot 10^{-6}$·/ | | |

[2] Calibration and Measurement Capability (CMC): Demonstrated measurement uncertainty, with coverage probability of 95%, in a given measurement point or measurement range. Measurement uncertainty, *U*, is calculated according to EA-4/02 "*Evaluation* of the Uncertainty of Measurement in Calibration".

| HCS code | Measured quantity, Instrument, Measure | Range | CMC[2] | Remarks | Location |
|---|---|---|---|---|---|
| | Setting foils | ≤ 2 mm | 0.5 µm | | |
| | Feeler gauges | ≤ 5 mm | 0.8 µm | DIN 2275 | |
| DM 2 0 | Line scales, distances | | | | BE |
| | Line scales, measuring tapes and spring rules | ≤ 500 m | √n·0.2 mm | With n = l/5 (l is nominal length and n is rounded up to an integer) | |
| | Dial gauge | ≤ 50 mm | 0.8 µm | DIN 878, 897, 2270 | |
| | | 50 – 100 mm | 1.9 µm | | |
| | Outline scales | ≤ 315 mm | 0.07 mm | Graduation diameter | |
| | | ≤ 1000 mm | 0.25 mm | Graduation outline | |
| DM 3 0 | Length measuring instruments | | | | BE |
| | Vernier callipers | ≤ 1500 mm | 14 µm + $2.0 \cdot 10^{-5}$·/ | DIN 862 | |
| | Height callipers | ≤ 1000 mm | 16 µm + $1.5 \cdot 10^{-5}$·/ | DIN 862 | |
| | Depth callipers | ≤ 1000 mm | 16 µm + $1.5 \cdot 10^{-5}$·/ | DIN 862 | |
| | Outside micrometers | ≤ 100 mm | 1.8 µm | DIN 863-1 / DIN 863-3 | |
| | | (100 – 1000) mm | 2.4 µm + $5.2 \cdot 10^{-6}$·/ | | |
| | Internal micrometer | ≤ 100 mm | 1.7 µm | DIN 863-4 with pieces to extend the length | |
| | | (100 – 600) mm | 1.9 µm + $4.0 \cdot 10^{-6}$·/ | | |
| | 3-point internal micrometers | (4 – 30) mm | 2.1 µm | DIN 863-4 | |
| | | (30 – 150) mm | 2.5 µm + $7.2 \cdot 10^{-6}$·/ | | |
| | | (150 – 300) mm | 2.2 µm + $1.0 \cdot 10^{-5}$·/ | | |
| | 2-point internal micrometers | (4 – 30) mm | 2.7 µm | | |
| | | (30 – 150) mm | 3.0 µm + $6.3 \cdot 10^{-6}$·/ | | |
| | | (150 – 300) mm | 2.7 µm + $9.7 \cdot 10^{-6}$·/ | | |

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| HCS code | Measured quantity, Instrument, Measure | Range | CMC[2] | Remarks | Location |
|---|---|---|---|---|---|
| | Micrometer calliper heads and dial gauge testers | ≤ 50 mm | 1.2 µm | | |
| | Depth micrometers | ≤ 50 mm | 3.1 µm | DIN 863-2 | |
| | Lead through length measuring instrument | > 15 m | 0.01 m + $2.5 \cdot 10^{-3}$·/ | | |
| DM 4 0 | Diameter | | | | BE |
| | Plug gauges | ≤ 50 mm | 0.9 µm | Using an ULM | |
| | | (50 – 100) mm | 1.4 µm | | |
| | | (100 – 600) mm | 1.0 µm + $5.0 \cdot 10^{-6}$·/ | | |
| | Ring gauges | (1 – 30) mm | 1.0 µm | | |
| | | (30 – 150) mm | 1.3 µm + $4.0 \cdot 10^{-6}$·/ | | |
| | | (150 – 300) mm | 0.9 µm + $6.3 \cdot 10^{-6}$·/ | | |
| | Bore measuring instrument | ≤ 5 mm | 1.7 µm | | |
| | Snap gauges | (1 – 30) mm | 1.0 µm | Using an ULM | |
| | | (30 – 150) mm | 1.3 µm + $4.0 \cdot 10^{-6}$·/ | | |
| | | (150 – 300) mm | 0.9 µm + $6.3 \cdot 10^{-6}$·/ | | |
| DM 5 0 | Form error | | | | BE |
| | Straight-edge | ≤ 1000 mm | 6 µmm (squareness)<br>7 µm (parallelism) | Using an electronic length sensor | |
| | | ≤ 2000 mm | 16 µm (squareness and parallelism) | | |
| | | ≤ 2000 mm | 0.03 mm | Using feeler gauges | |
| | Square | 90° | 8.0 µm (squareness)<br>6.0 µm (parallelism)<br>4.5 µm (straightness) | Leg length ≤ 600 mm | |
| | | 90° | 11.0 µm (squareness)<br>8.0 µm (parallelism)<br>7.5 µm (straightness) | Leg length ≤ 1000 mm | |
| | Roundness | ∅ ≤ 280 mm | 0.4 µm | | |

| HCS code | Measured quantity, Instrument, Measure | Range | CMC[2] | Remarks | Location |
|---|---|---|---|---|---|
| DM 7 0 | Thread quantities | | | Cylindrical screw thread with equal flank angle | BE |
| | Thread plug gauge | | | | |
| | Simple effective diameter | (1 – 100) mm | 30° (5.7 – 9.4) µm<br>55° (3.5 – 4.2) µm<br>60° (3.2 – 3.8) µm<br>90° (2.5 – 2.7) µm | Depending on pitch Method 1a, according to TCGM - 04.05 | |
| DM 8 1 | Tools, products | ≤ 200 mm | 4 µm | Using a measuring microscope | BE |
| | | 360° | 15'' (angle) | | |
| | | ≤ 600 mm | 0.6 µm + $1.4 \cdot 10^{-5}$./ | Using an ULM | |
| | | ≤ 100 mm | 3.0 µm | Using altimeter | |
| | | ≤ 850 mm | 1.0 µm + $1.75 \cdot 10^{-6}$./ | | |
| | | ≤ 100 mm<br>≤ 150 mm<br>≤ 1000 mm | 6 µm<br>0.04 mm<br>0.04 mm + $3.3 \cdot 10^{-5}$./ | Using simple length measurement tools | |
| DM 9 0 | Angle (measuring instruments) | | | | BE |
| | Levels | ≤ 10 mm/m | 8.0 µm/m | Spirit level | |
| | | ≤ 10 mm/m | 3.0 µm/m | Electronic level | |
| | Angle | ≤ 360° | 1.4' | Using an optical dividing head | |
| | | ≤ 180° | 6' | Using angle gauge blocks | |
| RM 0 0 | Reference materials | | | | |
| RM 3 0 | Hardness | | | | BE |
| | hardness, Shore A | | 0.2 Shore | DIN 53505<br>ISO 7619 | |
| | hardness, Shore D | | 0.2 Shore | | |
| | | | | | |

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|---|---|---|---|---|---|
| FQ 0 0 | Force (tension and compression) | ≤1000 N | $0.001\ N + 2 \cdot 10^{-4} \cdot F$ | Using deadweight | BE |
| | Force (tension and compression) | ≤ 10 kN | $0.9\ N + 5.7 \cdot 10^{-4} \cdot F$ | Using a reference tranceducer | |
| | | ≤ 50 kN | $1.0\ N + 6.3 \cdot 10^{-4} \cdot F$ | | |
| | | | | | |
| PV 0 0 | Pressure and vacuum | | | | |
| PV 1 0 | Gas pressure | | | | BE |
| PV 1 1 | Absolute pressure | (70 – 110) kPa | $6.0 \cdot 10^{-5} \cdot p + 0.014\ kPa$ | By comparing with reference barometer | |
| | | (70 – 840) kPa | $6.5 \cdot 10^{-5} \cdot p + 0.22\ kPa$ | Air / Nitrogen | |
| | | (840 - 3500) kPa | $1.1 \cdot 10^{-4} \cdot p + 0.2\ kPa$ | | |
| PV 1 2 | Over atmospheric pressure | (0 – 35) kPa | $2.3 \cdot 10^{-4} \cdot p + 0.013\ kPa$ | By comparing with digital pressure indicator | |
| | | (-100 – 350) kPa | $5.8 \cdot 10^{-5} \cdot p + 0.042\ kPa$ | | |
| | | (0 – 840) kPa | $6.5 \cdot 10^{-5} \cdot p + 0.1\ kPa$ | Nitrogen | |
| | | (840 – 3500) kPa | $1.1 \cdot 10^{-4} \cdot p + 0.01\ kPa$ | | |
| PV 2 0 | Liquid pressure | | | | BE |
| PV 2 2 | Over atmospheric pressure | (0,1 – 120) MPa | $2.0 \cdot 10^{-4} \cdot p + 58\ Pa$ | Oil | |
| | | | | | |
| TQ 0 0 | Torque | ≤ 5 Nm | $0.001\ Nm + 1.25 \cdot 10^{-4} \cdot M$ | Torque test systems | BE |
| | | ≤ 50 Nm | $0.01\ Nm + 1.3 \cdot 10^{-4} \cdot M$ | | |
| | | ≤ 2000 Nm | $0.1\ Nm + 2.6 \cdot 10^{-4} \cdot M$ | | |
| | | ≤ 1 Nm | $0.0055\ Nm + 2.4 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | $0.0055\ Nm + 8.5 \cdot 10^{-2} \cdot M$ | Click wrench | |
| | | ≤ 10 Nm | $0.025\ Nm + 3.6 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | $0.025\ Nm + 1.1 \cdot 10^{-2} \cdot M$ | Click wrench | |

| HCS code | Measured quantity, Instrument, Measure | Range | CMC[2] | Remarks | Location |
|---|---|---|---|---|---|
| | | ≤ 100 Nm | 0.28 Nm + $2.0 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | 0.24 Nm + $1.1 \cdot 10^{-2} \cdot M$ | Click wrench | |
| | | ≤ 400 Nm | 2.0 Nm + $1.0 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | 1.9 Nm + $8.4 \cdot 10^{-3} \cdot M$ | Click wrench | |
| | | ≤ 1100 Nm | 2.0 Nm + $1.8 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | 1.7 Nm + $1.1 \cdot 10^{-2} \cdot M$ | Click wrench | |
| | | ≤ 2000 Nm | 2.1 Nm + $2.3 \cdot 10^{-3} \cdot M$ | Torque wrench | |
| | | | 1.5 Nm + $1.1 \cdot 10^{-2} \cdot M$ | Click wrench | |
| TE 0 0 | Temperature | | | | |
| TE 1 0 | Resistance thermometers | -100 °C – -40 °C | 0.06 °C | Calibration in liquid / oven | BE |
| | | -40 °C – 231 °C | 0.03 °C | | |
| | | 231 °C – 650 °C | 0.10 °C | Calibration in oven | |
| TE 3 0 | Thermocouples | -100 °C – 231 °C | 0.14 °C | Calibration in liquid / oven | BE |
| | | 231 °C – 650 °C | 0.7 °C | Calibration in oven | |
| | | 650 °C – 1050 °C | 1.5 °C | | |
| TE 4 0 | Self indicating thermometers | | | | BE |
| TE 4 1 | Temperature sensors with display unit (e.g. dataloggers or digital system thermometers) | -40 °C – 60 °C | 0.15 °C | Calibration in air | |
| | | -100 °C – -40 °C | 0.05 °C | Calibration in liquid / oven | |
| | | -40 °C – 231 °C | 0.015 °C | Calibration in liquid insertion depth at least 200 mm | |
| | | 231 °C – 650 °C | 0.10 °C | Calibration in oven | |
| | | 650 °C – 1050 °C | 1.5 °C | | |

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|---|---|---|---|---|---|
| TE 4 2 | Liquid-in-glass-thermometers | -40 °C – 220 °C | 0.1 °C | Calibration in liquid | |
| TE 5 0 | Radiation thermometry | | | | BE |
| TE 5 1 | Pyrometers, optical | -15 °C – 500 °C | 0.6 °C – 2.2 °C | | |
| TE 9 0 | Simulators / indicators | | | | BE |
| TE 9 1 | For the purpose of resistance thermometers | | | | |
| | | -200°C – 850°C | 0.0022 °C – 0,014°C | Measuring and generating | |
| TE 9 2 | For the purpose of thermocouples | Type JKTENS | 0.13 °C – 0.48 °C | Internal CJC Measuring and generating | |
| | | Type JKTENSRBLU | 0.02 °C – 0.51 °C | External CJC (0 °C) Measuring and generating | |
| TE 13 0 | Other temperature enclosures | | | | BE |
| TE 13 2 | Thermostat baths and ovens | -100 °C – 650 °C | 0.1 °C | | |
| | | | | | |
| RH 0 0 | Humidity | | | | |
| RH 1 0 | Hydrometers | (30 – 95)% RH | 1% RH | 20 °C < T < 50 °C | BE |
| RH 1 1 | Dew/frost-point hygrometer | (1 – 50) °C | 0.15 °C | | |