

# MPE

## MICROREP PRECISION (M) SDN. BHD.

To Provide the Best Value for Money Calibration Services

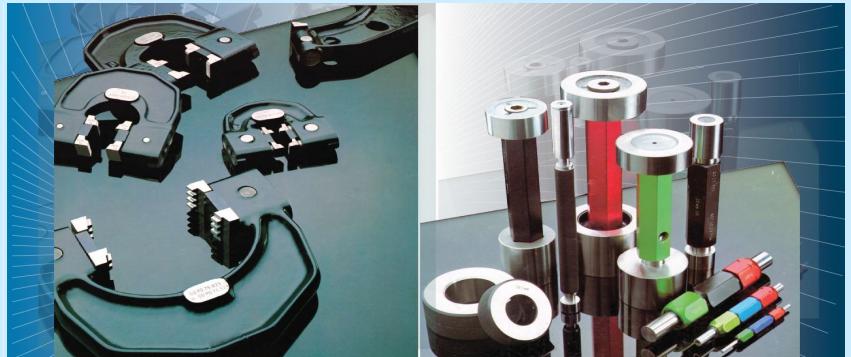
Difficulty to get Accredited Calibration Services for your Taper Thread Plug gauge (NPT, NPTF, PTF, ANPT, PT, BSPT, Rc & etc.) & 6-Steps Plain Taper Plug Gauges?

Let our specialists solve your problem now, our SAMM Accredited scopes covered the above: (please see SAMM No. 282 for detail):

"Taper Thread Plug Gauge ≠ Parallel Thread Plug Gauge", they are not the same.....

2011

### Microrep Calibration Laboratory



A leading national provider of calibration services, Microrep Calibration Laboratory offers the specialize breadth of capabilities that are essential to serving major corporations.

### Calibration Capabilities

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Yes / No	Attachment - STANDARDS MALAYSIA Certificate of Accreditation	
Yes / No	Attachment - Scope of Accreditation (Schedule)	

Attention, looking at this *New* sign for new capabilities added to services

**LET THE GAUGES SPECIALIST CALIBRATES YOUR GAUGES, CALL US NOW....**

## Introduction

### **C**ALIBRATION IS NOT:

- A guarantee that the item calibrated will work for any length of the time.
- A warranty of any kind.
- Meaning that the unit is now as good as new.
- It does not mean that just for quality management system paper requirement.
- The reason that just because the laboratory adjusted the unit that fault is now inserted in to the unit.
- It does not mean the calibration standard made the unit go faulty.

**T**he Microrep SAMM accredited calibration laboratory is equipped to perform a wide range of calibrations.

**M**ost calibrations are performed in our laboratory which is temperature controlled, by trained technicians who have met the stringent MS ISO 17025 and SAMM Policy requirements. Our SAMM accreditation schedule extends to some 40 items or more, ranging from a simple engineers rule to the measurement of gauge blocks using gauge block comparator.

**M**icrorep Calibration Laboratories' quality systems meet or exceed the requirements MS ISO/IEC 17025:2005. The scope of the quality management system encompasses all operations that affect the quality of our calibration service - equipment, personnel, calibration procedures and reporting.

**I**SO/IEC 17025 calibration is the equivalent of ISO 9000 for calibration laboratories. Certification to ISO 9000 alone does not demonstrate the competence of the lab to produce technically valid data and results, whereas certification to ISO/IEC 17025 does provide that evidence. It assures our clients of precision, accuracy and repeatability of results. ISO/IEC 17025 calibrations encompass calibration laboratories.

**T**he Microrep Precision (M) Sdn Bhd management team is committed to excellence by maintaining compliance to MS ISO/IEC 17025: 2005. Contact our representative today to learn more about ISO/IEC 17025 calibrations.

**P**lease call our telephone number 03-9059 2011 or +60-3-9059 2011 for customers outside of the Malaysia to pre-book items (or e-mail to [microrep@streamyx.com](mailto:microrep@streamyx.com) or [sales@microrep.info](mailto:sales@microrep.info)).

**C**ertain items (example: precision linear height gage, weighing machine, surface plate and others) can be calibrated on-site, please contact our sales office for details. Our technical competence is enhanced by our efficient and friendly service.

**A**ll calibrations (unless requested or notified otherwise) are performed in accordance with agreed procedures and by authorized operators in accordance with SAMM regulations. Results are reported against the relevant International Standard, ISO or customers' standard or specification.

### **Note:**

- **SAMM Accredited\*** = Denote under the Scope of Accreditation of [SAMM No. 282](#) where accredited by Department of Standards Malaysia (DSM), visit [www.microrep.info/calibration.html](http://www.microrep.info/calibration.html) to download latest calibration schedule for details.
- **Traceable** = Traceability refers to the completeness of the information about every step in a process chain; is the property of a result of a measurement whereby it is related to appropriate standard generally international or national standard. All our equipments are traceable to either national or international standard (not accredited).

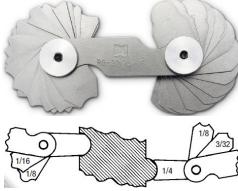
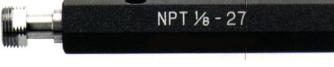
Example:      NML-SIRIM      : National Metrology Laboratory (Malaysia)  
                  NPL-UK      : National Physical Laboratory (UK)  
                  SPRING      : National Laboratory (Singapore)  
                  PTB-GERMANY      : Physikalisch-Technische Bundesanstalt (Germany)

Refer to the following pages for our detail calibration capabilities.

## Field 1.1 - Dimensional Measurement (Precision Limit Gauges)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Angle Blocks <i>New</i>		up to 60°		✓
Angle Gage <i>New</i>		up to 45°		✓
Angle Limit Gage <i>New</i>		up to 90°		✓
Drill Gage <i>New</i>		up to 12.5mm (or inches equivalent)		✓
Hex Plug Gauge		up to 25mm (or inches equivalent)	✓	
Master Setting Disc / Master Plug		up to 100mm (or inches equivalent)	✓	
Master Ring		1mm to 90mm (or inches equivalent)	✓	
Pin Gauge		up to 50mm (or inches equivalent)	✓	
Plain Plug Gauge		up to 120mm (or inches equivalent)	✓	
Plain Ring Gauge		1mm to 90mm (or inches equivalent)	✓	

## Field 1.1 - Dimensional Measurement (Precision Limit Gauges) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*SAMM Accredited	Traceable
Plain Taper Plug Gauge		up to 100mm (or inches equivalent)	✓	
Precision Ball <i>New</i>		up to 50mm (or inches equivalent)	✓	
Radius Gage (178 type) <i>New</i>		up to 50mm - 1 radiuses/leaf (or inches equivalent)	✓	
Radius Gage (272 type) <i>New</i>		up to 50mm - 2 radiuses/leaf (or inches equivalent)	✓	
Radius Gage (L300 type) <i>New</i>		up to 50mm - 5 radiuses/leaf (or inches equivalent)	✓	
Screw Pitch Gage <i>New</i>		Metric: 0.2 up to 7mm (60°) Unified: 3 to 80 TPI (60°) BSW: 4 to 62 TPI (55°)	✓	
Screw Plug Gauge (Parallel)		up to 100mm (or inches equivalent)	✓	
Screw Plug Gauge (Taper)		up to 100mm (or inches equivalent)	✓	
Screw Caliper Gauge		5 to 100mm (or inches equivalent)	✓	
Screw Ring Gauge (Parallel)		M3 to M40 - direct measurement - master check plugs (or inches equivalent)	✓	
Screw Ring Gauge (Parallel)		up to 64mm - master check plugs (or inches equivalent)	✓	

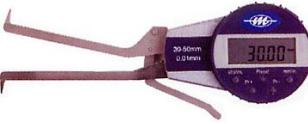
## Field 1.1 - Dimensional Measurement (Precision Limit Gauges) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*SAMM Accredited	Traceable
Screw Ring Gauge (Taper)		up to 64mm - master check plugs (or inches equivalent)		✓
Snap Gauge / Gap Gauge		3 to 100mm (or inches equivalent)	✓	
Taper Gage (Ruler Type) <i>New</i>		1mm to 60mm (or inches equivalent)		✓
Thread Measuring Wires		up to 6.5 mm (or inches equivalent)	✓	
Thickness Foils (Film Thickness Standard)		up to 5 mm (or inches equivalent)	✓	
Thickness Gauge (Feeler Gauge)		up to 3 mm (or inches equivalent)	✓	
Wire Gage <i>New</i>		English standard wire gage American standard wire gage Steel wire gage (mm or inches)		✓
Wet Film Thickness Comb <i>New</i>		up to 6mm (or inches equivalent)		✓

## Field 1.2 - Dimensional Measurement (Calibration Instrument/Master)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Caliper Checker		up to 300mm up to 600mm (or inches equivalent)	✓ ✓	
Gauge Block (Gage Block) - Metric - Grade 0, 1, 2, Workshop		0.5 to 100mm - 1mm base block 0.5 to 100mm - 2mm base block	✓ ✓	
Gauge Block Comparator		up to 100mm		✓
Indicator Calibration Tester		up to 25mm up to 50mm (or inches equivalent)	✓ ✓	
Measurement Center <i>New</i>		Up to 1000mm (or inches equivalent)		✓
Setting Standard (Setting Rod)		up to 300mm - flat end, (or inches equivalent)	✓	
Universal Horizontal Metroscope		up to 60mm (or inches equivalent)	✓	

## Field 1.3 - Dimensional Measurement (Measuring Instruments)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Angle Meter <i>New</i>		0 ~ 90°		✓
3-Point Internal Micrometer (Holtest)		3.5mm up to 6mm		✓
		6mm up to 100mm	✓	
Bevel Protractor		0° to 360°		✓
Bore Gauge (Cylinder Gauge)		up to 160mm (or inches equivalent)	✓	
Caliper (Digital, Dial, Vernier)		up to 300mm (or inches equivalent) - External measurement	✓	
		up to 300mm (or inches equivalent) - External & internal measurement	✓	
		up to 1000mm (or inches equivalent) - External measurement	✓	
Caliper Gauge (internal measurement)		5mm to 150mm (or inches equivalent)		✓
Caliper Gauge (external measurement)		up to 200mm (or inches equivalent)		✓

## Field 1.3 - Dimensional Measurement (Measuring Instruments) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*SAMM Accredited	Traceable
Coating Thickness Gauge (non-destructive)		up to 2000µm (Plating, Power Coating, Industrial)		✓
Depth Caliper (Digital, Dial, Vernier)		up to 300mm (or inches equivalent)		✓
Depth Micrometer (Digital, Digit, Vernier)		up to 150mm (or inches equivalent)	✓	
Dial Comparator		up to ±10mm (or inches equivalent)		✓
Dial Depth Gauge		up to 100mm (or inches equivalent)		✓
Digital Depth Gauge		up to 100mm (or inches equivalent)		✓
Dial Indicator (Dial Gauge) - JIS Std		up to 50mm	✓	
Dial Indicator (Dial Gauge) - ANSI/ASME Std		up to 2" / up to 50.8mm	✓	
Dial Test Indicator - JIS Std		up to 1mm	✓	

## Field 1.3 - Dimensional Measurement (Measuring Instruments) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*SAMM Accredited	Traceable
Dial Test Indicator - ANSI/ASME Std		up to 0.08" / up to 2mm	✓	
Dial Thickness Gauge		up to 25mm (or inches equivalent)	✓	
Digital Thickness Gauge		up to 25mm (or inches equivalent)	✓	
Digital Indicator		up to 100mm (or inches equivalent)	✓	
Electronic Comparator/ Mu-Checker		up to 10mm (or inches equivalent)		✓
External Micrometer		up to 300mm (or inches equivalent)	✓	
		above 300 & up to 1000mm (or inches equivalent)		✓
External Micrometer (Interchangeable Anvils type)		up to 300mm (or inches equivalent)	✓	
		above 300 & up to 1000mm (or inches equivalent)		✓
Granite Surface Table		up to 2600mm x 1500mm (L x W, or inches equivalent)		✓
Height Gauge		up to 600mm (or inches equivalent)	✓	
		Above 600 up to 1000mm (or inches equivalent)		✓

## Field 1.3 - Dimensional Measurement (Measuring Instruments) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*SAMM Accredited	Traceable
Height Gauge (Precision Linear Height)		up to 750mm (or inches equivalent)	✓	
		Above 750mm up to 1000mm (or inches equivalent)	✓	
Internal Micrometer - Caliper Type (Digital, Digit, Vernier)		up to 500mm (or inches equivalent)	✓	
Internal Micrometer (Interchangeable Rob Type)		up to 500mm (or inches equivalent)	✓	
Tubular Inside Micrometer (Digital, Digit, Vernier)		up to 25 mm travel for micrometer head (with Solid Rod / Individual Extension Rod up to 500 mm, or inches equivalent)	✓	
Measuring Microscope		up to 400mm - Site Calibration	✓	
Measuring Tape		up to 20 meter (or inches equivalent)	✓	
Metal Rules		up to 1000mm (or inches equivalent)	✓	
Protractor		0° to 180°	✓	
Tool Maker Measuring Microscope		up to 200mm - Site Calibration	✓	

## Field 1.3 - Dimensional Measurement (Measuring Instruments) - continues

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Ultrasonic Thickness Gauge	 A handheld ultrasonic thickness gauge with a digital display showing '0.000' and a probe attached by a cable.	up to 25.4mm (1")		✓
V-Anvil Micrometer	 A digital micrometer with a V-shaped anvil and a digital display showing '021300'.	up to 100mm		✓

## Field 2 - Mass Measurement (Weighing Machine & Standard Weight)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Analytical Balances (on-site calibration)		Up to 1200g		✓
Weighing Machines / Balances (on-site calibration)		up to 50kg	✓	
		above 50kg up to 100kg	✓	
		above 100kg & up to 150kg		✓
		above 150kg & up to 200kg		✓
Standard Weight		10mg to 20kg		✓
Standard Weight / Dead Weight (on-site calibration)		1 kg to 20kg		✓

## Field 3 - Force Measurement (Mass-Related)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Dial Tension Gauges		up to 10N (1000gf)		✓
Digital Force Gauges		up to 500N (50kgf)		✓
Durometers/ Rubber Hardness Testers		up to 45000mN		✓
Push Pull Gauges		up to 500N (50kgf)		✓
Rod Type Tension Gauges		up to 500N (50kgf)		✓

## Field 4 - Pressure Measurement (Mass-Related)

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Pressure Gauge (Vacuum)		-13 psi to 0 psi (-950 mbar to 0)		✓
Pressure Test Gauge (Pneumatic & Hydraulic)		up to 15000 psi (1000 bar)		✓
Pressure Gauge (Pneumatic & Hydraulic)		up to 15000 psi (1000 bar)		✓
Pressure Recorder (Pneumatic & Hydraulic)		up to 15000 psi (1000 bar)		✓

More pressure calibration services will come.....

## Field 5 – Temperature Measurement

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Temperature Calibrator		Thermocouple/RTD/mV/Ohm		✓
Temperature Controller		Thermocouple/RTD/mV/Ohm		✓
Temperature Indicator (hand-held)		Thermocouple/RTD/mV/Ohm		✓
Temperature Indicator		Thermocouple/RTD/mV/Ohm		✓
Temperature Recorder		Thermocouple/RTD/mV/Ohm		✓

More temperature calibration services will come.....

## Field 6 – Time Measurement

Items / Descriptions	Product Image	Range / Size / Capacity	*Samm Accredited	Traceable
Stopwatch		Up to 36000 seconds		v
Timer		Up to 14400 seconds		v

# Why Microrep? Simply because of we provide services to cater your needs.

## **T**echnical Services

MICROREP PRECISION (M) SDN BHD will provide the level of service that will best meet your calibration and quality requirements up to and including supplying a qualified and trained metrology personnel to manage your facility.

### **P**ick-Up & Return (Quality door-to-door service)

Our Pick-Up & Return Calibration Service offering provides quality door-to-door service (within Klang Valley area).

### **E**quipment Tracking System (ETS)

Use our Equipment Tracking System. This tool allows us to manage customer calibration needs. Search, view, check and print item status by customer or owner in our labs.

### **V**alue-Added Redemption (VAR)

Our Value-Added Redemption program provides an easy way of money saving. Reduce your costs for faulty equipments.

### **C**onclusion! Why Calibrate?

You need calibration to provide you with the confidence that equipment that you are testing, manufacturing or servicing will meet its original specification or can meet its stated performance. It gives your clients the reassurance that you as a company take the quality of its final product seriously and that you strive to provide a product to the highest standard, no matter if new or a repaired unit.

- It gives your company creditability
- It gives your company image
- It gives your company the edge over its competitor
- It can reduce your costs
- In some instances it could give your company a legal edge especially with a SAMM issued certificate.

### **C**ontact us now

Contact a Microrep representative today to learn more about the quantifiable results we're delivering for customers in your marketplace.

#### **Microrep Precision (M) Sdn Bhd**

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57000 Kuala Lumpur, Malaysia

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### **I**nformative

*"Recalibration date specified by client"* – The User should be aware that any number of factors may cause this instrument to drift out of calibration before the specified calibration interval has expired.

*"Maintenance"* - Proper maintenance will extend the tool life of the instrument and can ensure the quality on the measuring results.

## Summary of calibration services:

### Dimensional calibration -

#### *measuring instrument:*

- angle meter
- 3-points internal micrometer
  - *borematic*
  - *holtest*
- bevel protractor
  - *dial/digital/vernier*
- bore gauge (cylinder gauge)
  - *large bore type*
  - *split ball type (for small hole)*
- caliper
  - *blade type caliper*
  - *dial caliper*
  - *digital caliper*
  - *inside caliper*
  - *low force caliper*
  - *offset caliper*
  - *offset centerline caliper*
  - *neck caliper*
  - *point caliper*
  - *tube thickness caliper*
  - *vernier caliper*
- caliper gauge
  - *external measurement type*
  - *internal measurement type*
- depth caliper
  - *dial/digital/vernier*
- depth gage
  - *dial depth gage*
  - *digital depth gage*
  - *tire thread depth gage*
- depth micrometer
  - *interchangeable rod type*
- dial comparator
- dial indicator
  - *JIS standard*
  - *JMAS standard*
  - *ANSI/ASME standard*
- dial test indicator
  - *JIS standard*
  - *ANSI/ASME standard*
- dial/digital thickness gauge
- digital indicator
  - *for linear measurement*
- electronic comparator
  - *cartridge head type*
  - *lever head type*
  - *mu-checker*
- external micrometer
  - *blade micrometer*
  - *can seam micrometer*
  - *disk micrometer*
  - *gear tooth micrometer*
  - *groove micrometer*
  - *hub micrometer*
  - *indicating micrometer*
  - *interchangeable anvils micrometer*
  - *point micrometer*
  - *screw thread micrometer*
  - *sheet metal micrometer*
  - *spline micrometer*
  - *tube micrometer*
  - *uni-mike*
- height gauge
  - *dial height gauge*
  - *digital height gauge*
  - *heightmatic*
  - *vernier height gauge*
- inside micrometer

- *caliper type*
- *interchangeable rod type*
- linear height gauge
  - *high precision height gauge*
- loupe/magnifier with measuring scale
  - *scale loupe*
- measuring microscope
  - *2D measuring microscope*
  - *Toolmaker's microscope*
- micrometer head
  - *inch*
  - *mm*
- protractor
- setting rod
  - *micrometer standard*
- standard bar
- steel ruler/metal ruler
- surface plate
  - *granite surface plate*
  - *cast iron surface plate*
- tubular inside micrometer
  - *extension pipe type*
  - *extension rod type*
  - *solid rod type*
- V-anvil micrometer

### Dimensional calibration - precision limit gauges:

- angle gages - *new*
- angle blocks - *new*
- angle limit gages - *new*
- chamfer gages - *new*
- drill gages - *new*
- feeler gauges
  - *leaf type*
- film thickness standard
- gap gauge
- hex plug gauge
- master disc
  - *setting disc*
  - *setting plug*
- pin gauge
  - *individual pin gauge*
  - *pin gauge set*
- plain plug gauge
  - *double ended type*
  - *progressive type*
  - *single ended type*
- plain ring gauges
  - *Go/Not Go ring*
  - *master ring*
  - *setting ring*
- plain plug gauges - taper
  - *6-step taper*
  - *Jacob taper*
  - *Morse taper*
- precision parallels
  - *pair*
  - *set*
- radius gages - *new*
  - *178 type*
  - *272 type*
  - *L300 type*
- screw caliper gauges - parallel
  - *BA*
  - *BSP*
  - *BSP-F*
  - *BSW & BSF*
  - *G (ISO 228)*
  - *metric ANSI/ASME*
  - *metric ISO*

- *metric JIS*
- *unified ANSI/ASME*
- *unified BS*
- *unified JIS*

- screw pitch gage - *new*
  - *metric: 0.2 up to 7mm (60°)*
  - *unified: 3 to 80 TPI (60°)*
  - *BSW: 4 to 62 TPI (55°)*
- screw/thread plug gauges - parallel
  - *ACME*
  - *ACME stub*
  - *BA*
  - *BS insert*
  - *BSP*
  - *BSP-F*
  - *BSW & BSF*
  - *G (ISO 228)*
  - *helicoil*
  - *metric ANSI/ASME*
  - *metric ISO*
  - *metric JIS*
  - *STI*
  - *unified ANSI/ASME*
  - *unified BS*
  - *unified JIS*
  - *whitworth*

- screw/thread plug gauges - taper
  - *ANPT*
  - *BSPT*
  - *NPT*
  - *NPTF*
  - *PT*
  - *PTF*
  - *Rc*
- screw/thread ring gauges - parallel
  - *BA*
  - *BSP*
  - *BSP-F*
  - *BSW & BSF*
  - *G (ISO 228)*
  - *metric ANSI/ASME*
  - *metric ISO*
  - *metric JIS*
  - *unified ANSI/ASME*
  - *unified BS*
  - *unified JIS*
  - *whitworth*

- snap gauge
- taper gage (ruler type)
- thickness foil
- thickness gauges
  - *leaf type*
- thread measuring wires
  - *3 wires set*
  - *2 wire set*
- universal horizontal metroscopes
- V-block
- Wet film thickness comb
- width gauge
- wire gages

### Dimensional calibration -

#### *calibration master:*

- caliper checker
- dial indicator calibrator
  - *calibration tester*
  - *dial gage tester*
- gauge block

- *mm (grade 0, 1, 2 and workshop class)*

- gauge block comparator
- measuring center
- micrometer standard
- universal horizontal metroscope
- universal length measuring machine

#### Hardness calibration:

- durometer/rubber hardness tester
  - *JIS K 6253*
    - *type A, AM, D, E*
  - *JIS K 6301*
    - *type A & C*
  - *JIS K 7215*
    - *type A & D*
  - *ASTM D2240*
    - *type A, B, C, D, DO, E, M, O, OO, OOO, OOO-S and R*

#### Mass and mass related calibration:

- force gauge
  - *push-pull gauge (dial scale)*
  - *digital force gauge*

- standard weight/dead weight
  - *M class (OML)*
- tension gauge
  - *dial type*
  - *rod type*
- weighing machine/balance
  - *analytical balance*
  - *analogue scale*
  - *dial scale*
  - *digital scale*

#### Pressure calibration:

- pressure gauge
  - *hydraulic*
  - *pneumatic*
  - *vacuum*
- pressure recorder
  - *hydraulic*
  - *pneumatic*

- *vacuum*

#### Time & Frequency:

- stop watch
  - *digital*
  - *mechanical*
- timer
  - *analog*
  - *digital*

#### Temperature calibration:

- temperature indicating devices (electrical simulation)
  - *Thermocouple simulation*
    - *type B*
    - *type R*
    - *type S*
    - *type E*
    - *type J*

- *type K*
- *type N*
- *type T*
- *type U*
- *type L*
- *type C*
- *type G*
- *type D*
- *RTD simulation*
  - *PT50*
  - *PT100*
  - *PT200*
  - *PT500*
  - *PT1000*
  - *Ni100*
  - *Ni120*
  - *Cu10*

