

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 & KS Q ISO/IEC 17025:2017

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CALIBRATION

Valid To : Dec. 25, 2026.

Accreditation No : KC14-296

In recognition of the successful completion of the KOLAS evaluation process,
accreditation is granted to this laboratory to perform the following calibrations

Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site
102. Linear dimension			10517	Stylus type roughness testers	Y	50102	Temperature indicators/ recorders/controllers, temperature calibrators, etc.	Y
10206	Dial/cylinder gauge testers	N	10525	Thread plug gauges	N			
10210	Extensometers, Linear displacement transducers	Y	10527	Thread ring gauges	N			
			106. Various dimensional			50103	Glass thermometers; liquid-in-glass, Beckmann, etc.	N
10211	Filler gauges	N	10601	Inside/Outside/Gear tooth	Y			
10216	Height gauges/ measuring machines	Y	10603	Cylinder/Bore gauges	Y	50104	Resistance thermometers; SPRT, IPRT, thermistors, etc.	N
10220	Standard measuring machines	Y	10604	Depth gauges,	Y			
10223	Electronic micrometers	N	10605	Dial/Digital gauges	Y			
10224	Heightmicrometers, riser blocks	N	10609	Micro indicators,	Y	50105	Thermal expansion thermometers; bimetal, gas or liquid type, etc.	N
10228	Cylindrical plug/pin gauges, Thread measuring wire gauges	N	10611	3-point micrometers	Y			
10229	Radius gauges	N	10612	Inside micrometers	Y	50106	Thermomecoules: noble metal, base metal, pure metal, special type, etc.	N
10230	Cylindrical ring gauges	N	10613	Outside micrometers	Y			
10232	Step gauges	N	10617	Standard sieves	N			
10233	Taper thickness gauges	N	201. Mass			503. Humidity		
10234	Ultrasonic thickness gauges	Y	20102	Balance, Auto-hopper Scale	Y	50302	Relative humidity hygrometers; polimer thinfil, hair, etc.	N
10235	Ultrasonic/coating thickness	N	20109	Balance, Electric	Y			
			20112	Balance, Platform scale	Y			
10236	Coating thickness testers	Y	20113	Balance, Spring scale	Y	50304	Temperature humidity recorders ; Hygrothermograph, etc	N
104. Form			20116	Weights	N			
10401	Form testers	Y	202. Force			50306	Humidity generators; two-pressure, two-temperature, flow mixing humidity generator, constant temperature and humidity chamber, etc.	Y
10407	Precision surface plates	Y	20203	Tension/Compression	Y			
10409	Roundness measurement instruments	Y	203. Torque					
105. Complex geometry			20303	Torque wrenches/drivers	N	501. Contact thermometry		
10503	Contact coordinate measuring machines	Y	50101			50101	Temperature generators: ovens, furnaces, isothermal liquid baths, dry-block calibrators, etc.	Y
10504	Non-contact coordinate measuring machines	Y						
10511	Measuring microscopes, Profile projectors	Y						

Note

- This laboratory provides calibration services in permanent standard laboratory and at on-site.
- Laboratory conducts on-site calibration should meet requirements of KOLAS-SR-007.
- On-site calibration is allowed to items with marking 'Y', not allowed to items with marking 'N'.
- Measurement uncertainty normally is quoted as an expanded uncertainty at a coverage probability of 95%, which usually requires the use of a coverage factor of K=2. It expresses the lowest uncertainty of measurement that can be provided by accredited calibration laboratories in normal conditions.
- Due to the calibration environment such as reference standards or customers' facilities, it is note that uncertainty of measurement on a calibration certificate may be expressed larger than measurement uncertainty on scope of accreditation in general.
- If continuous calibration range is divided, each divided range's endpoint indicates inclusive.
* ex) If calibration range is divided to (0 ~ 25) mm and (25 ~ 100) mm, 25 mm in first range indicates inclusive and 25 mm in second range indicates exclusive.

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dial/cylinder gauge testers	10206	(0 ~ 100) mm	$\sqrt{(0.27 \mu\text{m})^2 + (3.2 \times 10^{-6} \times I_0)^2}$	Gauge block DK-I-102-06
Extensometers, Linear displacement transducers	10210	(0 ~ 100) mm	$\sqrt{(1.3 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$	Gauge block DK-I-102-10
Filler gauges	10211	(0 ~ 5) mm	0.8 μm	Standard measuring machines DK-I-102-11
Height gauges/ measuring machines	10216	(0 ~ 1 000) mm	$\sqrt{(1.1 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$	Gauge block DK-I-102-16
Standard measuring machines	10220	(0 ~ 500) mm	$\sqrt{(0.24 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$	Gauge block DK-I-102-20
Electronic micrometers	10223	(0 ~ 5) mm	0.17 μm	Gauge block DK-I-102-23
Height micrometers Block Head	10224	(0 ~ 600) mm (0 ~ 30) mm	$\sqrt{(1.0 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$ 1.0 μm	Gauge block Electronic micrometer DK-I-102-24
Cylindrical plug gauges, thread measuring wire gauges	10228	(2 ~ 200) mm	$\sqrt{(0.82 \mu\text{m})^2 + (5.0 \times 10^{-6} \times I_0)^2}$	Standard measuring machines DK-I-102-28
Radius gauge	10229	(0 ~ 100) mm	2.5 μm	Non-contact coordinate measuring machines DK-I-102-29
Cylindrical ring gauges	10230	(3 ~ 100) mm	$\sqrt{(1.2 \mu\text{m})^2 + (12 \times 10^{-6} \times I_0)^2}$	Standard measuring machines DK-I-102-30
Step gauge	10232	(0 ~ 610) mm	$\sqrt{(1.1 \mu\text{m})^2 + (3.2 \times 10^{-6} \times I_0)^2}$	Gauge block DK-I-102-32
Taper thickness gauge	10233	(0 ~ 100) mm	5.9 μm	Non-contact coordinate measuring machines DK-I-102-33
Ultrasonic thickness gauges	10234	(1 ~ 200) mm	11 μm	Ultrasonic thickness specimens DK-I-102-34
Ultrasonic/coating thickness specimens Coating Ultrasonic	10235	(0 ~ 5) mm (0 ~ 300) mm	0.69 μm $\sqrt{(1.5 \mu\text{m})^2 + (3.2 \times 10^{-6} \times I_0)^2}$	Standard measuring machines Gauge block DK-I-102-35
Coating thickness testers	10236	(0 ~ 2.1) mm	2.0 μm	Coating thickness specimens DK-I-102-36

104. Form

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Form testers Vertical direction accuracy Cross direction accuracy	10401	(0 ~ 50) mm (0 ~ 50) mm	0.16 μm 0.92 μm	Gauge block Form standard specimens DK-I-104-01
Precision surface plates Diagonal length	10407	Diagonal length Less than 1 900 mm (1 900 ~ 5 000) mm	2.2 μm 3.0 μm	Electronic level DK-I-104-07

104. Form

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Roundness measurement instrument the accuracy of a detector Circle Direction Revolution Error of Spindle axis error of spindle	10409	(0 ~ 100) μm (0 ~ 360)° (0 ~ 360)°	0.41 μm 0.04 μm 0.19 μm	Roundness standard/Roundness magnification standard DK-I-104-09

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Contact coordinate measuring machines The accuracy of the scale Squareness	10503	(0 ~ 1 000) mm 90°	$\sqrt{(1.0 \mu\text{m})^2 + (4.0 \times 10^{-6} \times I_0)^2}$ 2.4"	Step gauge Precision square DK-I-105-03
Non-contact coordinate measuring machines The accuracy of the scale Squareness	10504	(0 ~ 300) mm 90°	$\sqrt{(0.6 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$ 2.4 μm	Standard scale, Precision squares DK-I-105-04
Measuring microscopes, Profile projectors The accuracy of the scale Squareness Scaling error Angle split	10511	(0 ~ 300) mm (0 ~ 100) mm ×2 ~ ×100 (0 ~ 360)°	$\sqrt{(0.8 \mu\text{m})^2 + (2.0 \times 10^{-6} \times I_0)^2}$ 2.2 μm 0.080 % 0.014°	Standard scale, Precision squares DK-I-105-11 DK-I-105-11-1
Stylus type roughness testers Ra Rz	10517	(0 ~ 4) μm (0 ~ 10) μm	42 nm 0.24 μm	Standard specimen DK-I-105-17
Thread plug gauges Pitch dia Inside dia Pitch Included angle of thread	10525	(0.5 ~ 100) mm (0.5 ~ 100) mm (0.1 ~ 5) mm (0 ~ 30)°	$\sqrt{(1.8 \mu\text{m})^2 + (4.0 \times 10^{-6} \times I_0)^2}$ $\sqrt{(0.6 \mu\text{m})^2 + (4.0 \times 10^{-6} \times I_0)^2}$ 1.2 μm 1'	Standard measuring machine Thread wire gage Non-contact coordinate measuring machine DK-I-105-25
Thread ring gauges Pitch dia Inside dia	10527	(3 ~ 50) mm (3 ~ 50) mm	$\sqrt{(1.5 \mu\text{m})^2 + (8.0 \times 10^{-6} \times I_0)^2}$ $\sqrt{(3.0 \mu\text{m})^2 + (6.0 \times 10^{-6} \times I_0)^2}$	Standard measuring machine Ball 3-point micrometer Cylindrical ring gauge DK-I-105-27

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Inside/Outside/Gear tooth calipers, Caliper gauges	10601	(0 ~ 1 000) mm	$\sqrt{(9.1 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$	Gauge block, Gauge block accessory DK-I-106-01 DK-I-106-01-1
Cylinder/Bore gauges	10603	(6 ~ 400) mm	0.98 μm	Dial gauge testers DK-I-106-03
Depth gauges, Depth micrometers	10604	(0 ~ 300) mm	$\sqrt{(1.4 \mu\text{m})^2 + (3.0 \times 10^{-6} \times I_0)^2}$	Gauge block, Precision surface plates Dial gauge testers DK-I-106-04 DK-I-106-04-1

106. Various dimensional

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Dial/Digital gauges	10605	(0 ~ 25) mm	1.0 μm	Gauge block Dial Gauge Testers DK-I-106-05
Micro indicators, Test indicators	10609	(0 ~ 1) mm	0.6 μm	Dial Gauge Testers DK-I-106-09
3-point micrometers	10611	(2 ~ 100) mm	$\sqrt{(1.8 \mu\text{m})^2 + (3.0 \times 10^{-6} \times l_0)^2}$	Cylindrical ring gauge DK-I-106-11
Inside micrometers	10612	(5 ~ 300) mm	$\sqrt{(1.1 \mu\text{m})^2 + (3.0 \times 10^{-6} \times l_0)^2}$	Gauge Block, Gauge Block Accessory DK-I-106-12
Outside micrometers	10613	(0 ~ 500) mm	$\sqrt{(1.2 \mu\text{m})^2 + (3.0 \times 10^{-6} \times l_0)^2}$	Gauge Block, Gauge Block Accessory DK-I-106-13
Standard sieves wire diameter sieves size	10617	(0 ~ 10) mm (0 ~ 100) mm	2.6 μm 3.7 μm	Non-contact coordinate measuring machines DK-I-106-17

201. Mass

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Balance, Auto-hopper scale	20102	(1 ~ 10) kg (10 ~ 20) kg (20 ~ 50) kg (50 ~ 100) kg (100 ~ 200) kg (200 ~ 500) kg (500 ~ 1 000) kg (1 000 ~ 2 000) kg (2 000 ~ 3 000) kg	1.1 g 2.1 g 5.3 g 11 g 21 g 53 g 0.11 kg 0.21 kg 0.53 kg	Standard weights DK-I-201-02
Balance, Electric	20109	(0 ~ 5) g (5 ~ 50) g (50 ~ 200) g (200 ~ 1 000) g (1 ~ 10) kg (10 ~ 30) kg (30 ~ 100) kg (100 ~ 200) kg (200 ~ 500) kg (500 ~ 1 000) kg (1 000 ~ 2 000) kg (2 000 ~ 3 000) kg	53 μg 0.13 mg 0.27 mg 1.6 mg 14 mg 27 mg 1.4 g 12 g 53 g 0.11 kg 0.23 kg 0.53 kg	Standard weights DK-I-201-09
Balance, Platform scale	20112	(1 ~ 10) kg (10 ~ 20) kg (20 ~ 50) kg (50 ~ 100) kg (100 ~ 200) kg (200 ~ 500) kg (500 ~ 1 000) kg (1 000 ~ 2 000) kg	1.0 g 2.0 g 20 g 50 g 0.10 kg 0.20 kg 0.50 kg 1.0 kg	Standard weights DK-I-201-12

201. Mass

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Balance, Spring scale	20113	(1 ~ 2) kg (2 ~ 5) kg (5 ~ 10) kg (10 ~ 20) kg (20 ~ 50) kg (50 ~ 100) kg	10 g 20 g 50 g 0.10 kg 0.20 kg 0.50 kg	Standard weights DK-I-201-13
Weights	20116	(Below M ₁ Class) 1 mg 2 mg 5 mg 10 mg 20 mg 50 mg 100 mg 200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 500 g 1 kg 2 kg 5 kg 10 kg 20 kg	17 μg 17 μg 17 μg 17 μg 17 μg 18 μg 18 μg 18 μg 19 μg 19 μg 21 μg 23 μg 30 μg 30 μg 60 μg 0.13 mg 0.16 mg 1.6 mg 1.7 mg 16 mg 17 mg 0.12 g 0.12 g	Standard weights, Balance, Electric DK-I-201-16

202. Force

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Tension/Compression testing machines	20203	(0.02 ~ 0.2) kN (0.2 ~ 0.5) kN (0.5 ~ 1) kN (0.3 ~ 3) kN (3 ~ 5) kN (5 ~ 10) kN (10 ~ 30) kN (30 ~ 50) kN (50 ~ 100) kN (100 ~ 300) kN	1.4×10^{-3} 1.5×10^{-3} 1.6×10^{-3} 1.8×10^{-3} 1.6×10^{-3} 1.5×10^{-3} 1.6×10^{-3} 1.6×10^{-3} 2.4×10^{-3} 2.0×10^{-3}	Electric Force Measuring Devices DK-I-202-03

203. torque

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Torque wrenches/drivers	20303	(1.2 ~ 12) N·m	4.3×10^{-3}	Torque Measuring devices DK-I-203-03
		(12 ~ 30) N·m	3.6×10^{-3}	
		(30 ~ 60) N·m	4.3×10^{-3}	
		(60 ~ 100) N·m	4.5×10^{-3}	
		(100 ~ 200) N·m	3.9×10^{-3}	
		(200 ~ 400) N·m	3.4×10^{-3}	
		(400 ~ 800) N·m	3.5×10^{-3}	
(800 ~ 1 500) N·m	4.9×10^{-3}			

501. Humidity

Measured Quantity Instrument or Gauge	Field Code	Range	Measurement uncertainty (The Confidence Level is about 95 %)	Standard/Method of Measurement etc.
Relative humidity hygrometers; polimer thinfilm, hair, etc. Relative humidity Temperature	50302	(30 ~ 90) % R.H. (0 ~ 50) °C	2.6 % R.H. 0.7 °C	Dew-point mirror /DK-I-503-02
Temperature humidity recorders; Hygrothermograph, etc Relative humidity Temperature	50304	(30 ~ 80) % R.H. (-20 ~ 50) °C	4.2 % R.H. 1.0 °C	Dew-point mirror /DK-I-503-04
Humidity generators; two-pressure, two-temperature, flow mixing humidity gererator, constant temperature and humidity chamber, etc. constant temperature and humidity chamber (Relative humidity) (Temperature)	50306	(30 ~ 90) % R.H. (-40 ~ 100) °C	3.6 % R.H. 0.9 °C	Dew-point mirror /DK-I-503-06