Korea Laboratory Accreditation Scheme

CERTIFICATE OF ACCREDITATION

CALITECH Co., Ltd

Accreditation No. : KC19-354

Corporation Registration No. : 180111-1169001

Address of Laboratory : 42, Shinhosandan 4-ro 64beon-gil, Gangseo-gu, Busan, 618-290, Korea

date of Initial Accreditation : May. 22, 2019.

Duration : May. 22, 2019 ~ May. 21, 2023

Scope of Accreditation : Attached Annex

Date of issue : May. 22, 2019.

This calibration laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique).

LEE Seung Woo

Administrator
Korea Laboratory Accreditation Scheme

Korea Laboratory Accreditation Scheme(KOLAS) is a signatory of the ILAC mutual recognition arrangement

SCOPE OF ACCREDITATION TO ISO/IEC 17025-2005 & KS Q ISO/IEC 17025

CALITECH CO.,LTD.
42, Sinhosandan 4-ro 64beon-gil, Gangseo-gu, Busan, Korea 46759
Phone : 051-973-3839, FAX: 051-973-3841, E-mail : calitech@hanmail.net

CALIBRATION

Valid To : 21. May, 2023 Accreditation No. : KC19-354 (1/8)

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
102. Linear dimension		
10201	Balls	N
10206	Dial/cylinder gauge testers	N
10207	Doctor blades	N
10209	End bars	N
10210	Extensometers, linear displacement transducers	Y
10211	Filler gauges	N
10212	Filmapplicators	N
10213	Gapgauges	N
10214	Gauge blocks, by comparison	N
10216	Height gauges/measuring machines	Y
10220	Standard measuring machines	Y
10223	Electronic micrometers	N
10224	Heightmicrometers,Riser blocks	N
10227	Standard tape rules	N
10228	Plug/pin gauges, cylindrica	N
10229	Radius gauges	N
10230	Ring gauges, cylindrical	N
10232	Step gauges	N
10233	Thickness gauges, taper	N
10234	Ultrasonic thickness gauges	Y
10235	Ultrasonic, coating thickness specimens	N
10236	Coating thickness testers	Y
103. Angle		
10304	Bevel protractors	N
10311	Plate/Square/Electric levels	N
10320	Precision squares	N
104. Form		
10401	Form testers	Y
10404	Optical flats	N
10405	Optical parallels	N
10407	Precision surface plates	Y
10409	Roundness measurement instruments	Y
10412	Straight edges	N
10413	Straight rules	N
105. Complex geometry		
10502	Bench centers	N
10504	Non-contact coordinate measuring machines	Y
10511	Measuring microscopes, Profile projectors	Y
10514	Plug gauges, taper	N
10517	Stylus type roughness testers	Y
10525	Thread plug gauges	N
10526	Thread plug gauges, taper	N
10527	Thread ring gauges	N
10529	V-blocks,Boxblocks	N
106. Various dimensional		
10601	Inside/Outside/Gear tooth calipers, Caliper gauges	Y
10603	Cylinder/bore gauges	Y
10604	Depth gauges, Depth micrometers	Y
10605	Dial/digital gauges	Y
10608	Grind gauges	N
10609	Microindicators,Testindicators	Y
10610	Micrometer heads	N
10611	3-points, Micrometers	Y
10612	Inside micrometers	Y
10613	Outside micrometers	Y
10617	Standard sieves	N
10620	Welding gauges	N
201. Mass		
20102	Auto-hopper scale balances	Y
20105	Counter beam balances	Y
20107	Dial swing scale balances	Y
20109	Electric balances	Y
20112	Platform scale balances	Y
20113	Spring scale balances	Y
20116	Weights	N
202. Force		
20203	Tension/compression testing machines	Y
20204	push-pull gauge	N
204. Pressure		
20404	Hydraulic pressure ballances	N
20406	Absolute pressure gauges	Y
20407	Blood pressure gauges	Y
20408	Compound pressure gauges	Y
20409	Differential pressure gauges	Y
20411	Gauge pressure gauges	Y
20412	Pressure transducers /transmitters	N
20413	Dial type vacuum gauges	Y

Note

1. This laboratory provides calibration services in permanent standard laboratory and at on-site.
2. Laboratory conducts on-site calibration should meet requirements of KOLAS-SR-008.
3. On-site calibration is allowed to items with marking 'Y', not allowed to items with marking 'N'.
4. Calibration and Measurement Capability (CMC) means capabilities provided by accredited calibration laboratories. It expresses the lowest uncertainty of measurement that can be achieved during a calibration. CMC normally is quoted as an expanded uncertainty at a
5. 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 CMC on scope of accreditation in general.

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Balls	10201	(0 ~ 100) mm	$\sqrt{0.35^2+0.005\ 1^2\times l^2}$ µm (l:mm)	Standard measuring machines/CTCI-10201
Dial/cylinder gauge testers	10206	(0 ~ 25) mm	$\sqrt{0.28^2+0.003\ 6^2\times l^2}$ µm (l:mm)	Gauge blocks /CTCI-10206
Doctor blades	10207	(0 ~ 10) mm	1.8 µm	Electronic micrometers /CTCI-10207
End bars	10209	(25 ~ 1 600) mm	$\sqrt{1.43^2+0.002\ 9^2\times l^2}$ µm (l:mm)	Electronic micrometers /CTCI-10209
Extensometers,linear displacement transducers	10210	(0 ~ 500) mm	$\sqrt{0.31^2+0.003\ 7^2\times l^2}$ µm (l:mm)	Gauge blocks/CTCI-10210
Filler gauges	10211	(0 ~ 5) mm	0.8 µm	Standard measuring machines/CTCI-10211
Filmapplicators	10212	(0 ~ 1) mm	1.5 µm	Electronic micrometers /CTCI-10212
Gapgauges	10213	(0 ~ 250) mm	1.9 µm	Electronic micrometers /CTCI-10213
Gauge blocks, by comparison	10214	(0.5 ~ 100) mm (125 ~ 500) mm	$\sqrt{80^2+1.3^2\times l^2}$ nm (l:mm) $\sqrt{96^2+1.4^2\times l^2}$ nm (l:mm)	Gauge blocks /CTCI-10214
Height gauges/measuring machines	10216	(0 ~ 1 000) mm (1 000 ~ 1 500) mm	$\sqrt{0.9^2+0.003\ 0^2\times l^2}$ µm (l:mm) $\sqrt{12^2+0.003\ 0^2\times l^2}$ µm (l:mm)	Gauge blocks /CTCI-10216
Standard measuring machines	10220	(0 ~ 500) mm	$\sqrt{0.23^2+0.003\ 3^2\times l^2}$ µm (l:mm)	Gauge blocks /CTCI-10220
Electronic micrometers	10223	(0 ~ ±2) mm	0.12 µm	Gauge blocks/CTCI-10223
Heightmicrometers Block Head Riserblocks	10224	(0 ~ 600) mm (0 ~ 30) mm (0 ~ 600) mm	$\sqrt{0.9^2+0.003\ 0^2\times l^2}$ µm (l:mm) 0.9 µm $\sqrt{0.9^2+0.003\ 0^2\times l^2}$ µm (l:mm)	Gauge blocks, Measuring machines /CTCI-10224
Standard tape rules	10227	(0 ~ 7) m (7 ~ 30) m	$\sqrt{0.11^2+0.008\ 5^2\times l^2}$ mm $\sqrt{0.30^2+0.008\ 5^2\times l^2}$ mm (l:m)	Standard tape rules /CTCI-10227
Plug/pin gauges, cylindrica Thread measuring wire gage	10228	(0 ~ 200) mm (0 ~ 5) mm	$\sqrt{0.77^2+0.004\ 9^2\times l^2}$ µm (l:mm) 0.31 µm	Standard measuring machines/CTCI-10228
Radius gauges	10229	(0 ~ 100) mm	2.6 µm	Non-contactcoordinatemeasuringmachines /CTCI-10229
Ring gauges, cylindrical	10230	(1 ~ 150) mm	$\sqrt{0.6^2+0.007\ 8^2\times l^2}$ µm (l:mm)	Standard measuring machines/CTCI-10230
Step gauges	10232	(0 ~ 1 000) mm	$\sqrt{1.0^2+0.003\ 0^2\times l^2}$ µm (l:mm)	Gauge blocks /CTCI-10232
Thickness gauges, taper	10233	(0 ~ 100) mm	2.4 µm	Non-contactcoordinatemeasuringmachines /CTCI-10233
Ultrasonic thickness gauges	10234	(0 ~ 500) mm	$\sqrt{9.2^2+0.004\ 2^2\times l^2}$ µm	Ultrasonic thickness specimens /CTCI-10234
Ultrasonic/coating thickness specimens Coating thickness specimens	10235	(0 ~ 500) mm (0 ~ 7) mm	$\sqrt{2.0^2+0.003\ 3^2\times l^2}$ µm (l:mm) 0.7 µm	Standard measuring machines, Gauge blocks /CTCI-10235
Coating thickness testers	10236	(0 ~ 15) mm	2.8 µm	Coating thickness specimens /CTCI-10236

103. Angle

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Bevel protractors accuracy straight square parallel	10304	(0 ~ 90)°	 1′ 1.2 μm 1.2 μm	Angle gauges blocks/ CTCI-10304
Plate/Square/Electriclevels accuracy plane of the base side square	10311	±2 000″	 0.66″ 0.9 μm 3.1 μm	Fine angle generators/ CTCI-10311
Precisionsquares square parallel	10320	(0 ~ 450) mm	 3.3 μm 2.0 μm	Squareness testers/ CTCI-10320

104. Form

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Form testers	10401	(0 ~ 20) mm (0 ~ 50) mm	0.14 μm 0.92 μm	Gauge blocks /CTCI-10401
Optical flats	10404	(Ø0 ~ Ø60) mm	0.13 μm	Optical flats /CTCI-10404
Optical parallels plane surface parallel	10405	(Ø0 ~ Ø60) mm	 0.13 μm 0.09 μm	Optical flats /CTCI-10405
Precision surface plates	10407	(1 000×1 000) mm (2 000×2 000) mm (3 000×3 000) mm	2.8 μm 4.5 μm 6.0 μm	Electric levels /CTCI-10407
Roundness measurement instruments the accuracy of a detector Circle Direction Revolution Error of Spindle axis Error of Spindle	10409	 (0 ~ 100) μm (0 ~ 360)° (0 ~ 360)°	 0.51 μm 0.04 μm 0.07 μm	Roundness standard/Roundness magnification standard /CTCI-10409
Straight edges straight square parallel	10412	(0 ~ 2 000) mm	 3.9 μm 3.9 μm	Electronic micrometers /CTCI-10412
Straight rules	10413	(0 ~ 3 000) mm	$\sqrt{0.12^2+0.008\ 5^2\times l^2}$ mm (l:m)	Standard tape rule /CTCI-10413

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Bench centers difference of both centers flatness of both bed	10502	(0 ~ 400) mm	 3.2 μm 2.9 μm	Electronic micrometers /CTCI-10502
Non-contactcoordinatemeasuringmachines X,Y axis square	10504	(0 ~ 500) mm	 $\sqrt{0.46^2+0.003\ 1^2\times l^2}$ μm (l:mm) 3.0 μm	Standard scales /CTCI-10504

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Measuringmicroscopes,Profileprojectors	10511			Standard scales /CTCI-10511
Measuringmicroscopes		(0 ~ 500) mm		
X,Y axis			$\sqrt{0.44^2+0.003\ 1^2\times l^2}$ μm (l:mm)	
square			3.1 μm	
Profileprojectors		(0 ~ 300) mm		
X,Y axis			$\sqrt{1.3^2+0.003\ 1^2\times l^2}$ μm (l:mm)	
square			3.3 μm	
magnification accuracy			0.024 %	
angle divided accuracy			1.1′	
Plug gauges, taper	10514			Measuring machines, standard, Gage block /CTCI-10514
Taper angle		(0 ~ 90) °	2″	
External of small dia		(2 ~ 200) mm	$\sqrt{1.2^2+0.010\ 4^2\times l^2}$ μm (l:mm)	
External of large dia		(2 ~ 200) mm	$\sqrt{1.9^2+0.010\ 5^2\times l^2}$ μm (l:mm)	
Langth of gage		(2 ~ 200) mm	$\sqrt{1.4^2+0.003\ 0^2\times l^2}$ μm (l:mm)	
Stylus type roughness testers	10517			Roughness standard Specimens CTCI-10517
Ra		(0 ~ 20) μm	0.046 μm	
Rz		(0 ~ 50) μm	0.13 μm	
Height		(0 ~ 300) μm	0.081 μm	
Thread plug gauges	10525			Measuring machines, standard, Gage block /CTCI-10525
Pitch dia		(2 ~ 200) mm	$\sqrt{1.7^2+0.004\ 9^2\times l^2}$ μm (l:mm)	
External dia		(2 ~ 200) mm	$\sqrt{0.5^2+0.004\ 8^2\times l^2}$ μm (l:mm)	
Pitch dia		(0.3 ~ 5)mm	0.9 μm	
Included angle of thread		(0 ~ 30) °	1′	
Thread plug gauges, taper	10526			Measuring machines, standard, Thread wire gage /CTCI-10526
Pitch of small dia		(2 ~ 200) mm	$\sqrt{1.9^2+0.014\ 2^2\times l^2}$ μm (l:mm)	
Pitch of large dia		(2 ~ 200) mm	$\sqrt{2.4^2+0.022\ 1^2\times l^2}$ μm (l:mm)	
External of small dia		(2 ~ 200) mm	$\sqrt{1.1^2+0.014\ 2^2\times l^2}$ μm (l:mm)	
External of large dia		(2 ~ 200) mm	$\sqrt{1.8^2+0.022\ 1^2\times l^2}$ μm (l:mm)	
Pitch dia		(0.3 ~ 5)mm	0.9 μm	
Included angle of thread		(0 ~ 30) °	1′	
Langth of gage		(1.0 ~ 200) mm	$\sqrt{1.4^2+0.003\ 0^2\times l^2}$ μm (l:mm)	
Langth of notch			$\sqrt{2.2^2+0.003\ 0^2\times l^2}$ μm (l:mm)	
Thread ring gauges	10527			Measuring machines, standard, 3-point /CTCI-10527
Pitch dia		(2 ~ 100) mm	$\sqrt{1.9^2+0.006\ 5^2\times l^2}$ μm (l:mm)	
Inside dia		(2 ~ 100) mm	$\sqrt{1.8^2+0.006\ 9^2\times l^2}$ μm (l:mm)	

105. Complex geometry

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
V-blocks,Boxblocks	10529	(0 ~ 300) mm		Electronic micrometers /CTCI-10529
plane of the base side			1.6 μm	
plane of the V			1.6 μm	
slop of V-groove base			1.2 μm	
parallel of the base and cylinder			2.8 μm	
parallel of the side and cylinder			2.8 μm	
square			3.1 μm	

106.Various dimensional

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Inside/Outside/Gear toothcalipers,Calipergauges	10601			Gauge blocks /CTCI-10601
Inside/Outside/Calipergauges		(0 ~ 2 000) mm	$\sqrt{15^2 + 0.003\ 4^2 \times l^2}$ μm (l:mm)	
Calipergauges		(0 ~ 100) mm	0.73 μm	
		(100 ~ 300) mm	5.8 μm	
Cylinder/bore gauges	10603	(0 ~ 800) mm	0.5 μm	Dial/cylinder gauge testers /CTCI-10603
Depthgauges,Depthmicrometers	10604			Gauge blocks /CTCI-10604
Depthgauges		(0 ~ 1 000) mm	$\sqrt{7.1^2 + 0.003\ 0^2 \times l^2}$ μm (l:mm)	
Depthmicrometers		(0 ~ 300) mm	$\sqrt{1.1^2 + 0.003\ 5^2 \times l^2}$ μm (l:mm)	
Dial/digital gauges	10605	(0 ~ 50) mm	$\sqrt{0.17^2 + 0.003\ 7^2 \times l^2}$ μm (l:mm)	Gauge blocks /CTCI-10605
		(50 ~ 100) mm	$\sqrt{0.77^2 + 0.003\ 7^2 \times l^2}$ μm (l:mm)	
Grind gauges	10608			Electronic micrometers /CTCI-10608
Depth		(0 ~ 1) mm	1.8 μm	
Square		(0 ~ 150) mm	1.2 μm	
Microindicators,Testindicators	10609	(0 ~ 5) mm	0.33 μm	Dial/cylinder gauge testers/ CTCI-10609
Micrometer heads	10610	(0 ~ 100) mm	$\sqrt{0.62^2 + 0.003\ 2^2 \times l^2}$ μm (l:mm)	Gauge block s/CTCI-10610
3-points, Micrometers	10611	(2 ~ 200) mm	$\sqrt{1.3^2 + 0.004\ 1^2 \times l^2}$ μm (l:mm)	Cylindrical ring gauges /CTCI-10611
Inside micrometers	10612			Gauge blocks /CTCI-10612
Inside micrometers		(0 ~ 300) mm	$\sqrt{0.84^2 + 0.003\ 3^2 \times l^2}$ μm (l:mm)	
bar type Micrometers		(50 ~ 2 100) mm	$\sqrt{1.5^2 + 0.003\ 0^2 \times l^2}$ μm (l:mm)	
Outside micrometers	10613			Gauge blocks /CTCI-10613
		(0 ~ 100) mm	1.0 μm	
		(100 ~ 2 000) mm	$\sqrt{1.5^2 + 0.003\ 0^2 \times l^2}$ μm (l:mm)	
Standard sieves	10617	(0 ~ 53) mm		Non-contactcoordinatemeasuringmachines /CTCI-10617
wire diameter			2.8 μm	
sieves size			4.0 μm	
Welding gauges	10620			Non-contactcoordinatemeasuringmachines /CTCI-10620
length		(0 ~ 100) mm	0.12 mm	
angle		(0 ~ 90)°	36′	

201. Mass

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Auto-hopper scale balances	20102	(0 ~ 20) kg	10 g	Weights/CTCI-20102
		(20 ~ 50) kg	19 g	
		(50 ~ 100) kg	46 g	
		(100 ~ 500) kg	0.10 kg	
		(500 ~ 1 000) kg	0.19 kg	
		(1 000 ~ 2 000) kg	0.46 kg	
Counter beam balances	20105	(0 ~ 311) g	9.1 mg	Weights/CTCI-20105
		(311 ~ 2 610) g	91 mg	
		(2.61 ~ 20) kg	0.91 g	
Dial swing scale balances	20107	(0 ~ 20) kg	46 g	Weights/CTCI-20107
		(20 ~ 50) kg	91 g	
		(50 ~ 100) kg	0.19 kg	
		(100 ~ 500) kg	0.46 kg	
		(500 ~ 1 000) kg	0.91 kg	
		(1 000 ~ 2 000) kg	1.9 kg	
Electric balances	20109	(0 ~ 2) g	16 µg	Weights/CTCI-20109
		(2 ~ 20) g	31 µg	
		(20 ~ 50) g	39 µg	
		(50 ~ 100) g	62 µg	
		(100 ~ 200) g	0.12 mg	
		(200 ~ 500) g	0.32 mg	
		(0.5 ~ 1) kg	1.1 mg	
		(1 ~ 2) kg	1.4 mg	
		(2 ~ 5) kg	3.2 mg	
		(5 ~ 10) kg	7.0 mg	
		(10 ~ 20) kg	13 mg	
		(20 ~ 40) kg	16 mg	
		(40 ~ 60) kg	0.11 g	
Electric balances		(60 ~ 100) kg	1.4 g	
		(100 ~ 500) kg	12 g	
		(500 ~ 1 000) kg	24 g	
		(1 000 ~ 2 000) kg	52 g	
Platform scale balances	20112	(0 ~ 10) kg	0.91 g	Weights/CTCI-20112
		(10 ~ 20) kg	1.8 g	
		(20 ~ 50) kg	9.1 g	
		(50 ~ 100) kg	18 g	
		(100 ~ 500) kg	91 g	
		(500 ~ 1 000) kg	0.46 kg	
		(1 000 ~ 2 000) kg	0.91 kg	
Spring scale balances	20113	(0 ~ 1) kg	0.91 g	Weights/CTCI-20113
		(1 ~ 5) kg	4.6 g	
		(5 ~ 10) kg	9.1 g	
		(10 ~ 50) kg	45 g	
		(50 ~ 100) kg	91 g	

201. Mass

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Weights	20116	(1 mg ~ 1 kg)	(Class F_2)	Weights, Electronic balance /CTCI-20116
		1 mg	20 µg	
		2 mg	20 µg	
		5 mg	20 µg	
		10 mg	27 µg	
		20 mg	33 µg	
		50 mg	40 µg	
		100 mg	53 µg	
		200 mg	67 µg	
		500 mg	83 µg	
		1 g	0.10 mg	
		2 g	0.13 mg	
		5 g	0.17 mg	
		10 g	0.20 mg	
		20 g	0.27 mg	
		50 g	0.33 mg	
		100 g	0.53 mg	
		200 g	1.0 mg	
		500 g	2.7 mg	
		1 kg	5.3 mg	
		(2 kg ~ 20 kg)	(Class M_1)	
		2 kg	33 mg	
		5 kg	83 mg	
		10 kg	0.17 g	
		20 kg	0.33 g	

202. Force

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Tension/compression testing machines	20203			Force measureing devices, electrical /CTCI-20203
Tension		(0.005 ~ 1) kN	7.1×10^{-4}	
		(1 ~ 2) kN	1.4×10^{-3}	
		(2 ~ 5) kN	1.4×10^{-3}	
		(5 ~ 10) kN	1.4×10^{-3}	
		(10 ~ 20) kN	1.4×10^{-3}	
		(20 ~ 50) kN	1.6×10^{-3}	
Compression		(0.005 ~ 1) kN	7.1×10^{-4}	
		(1 ~ 2) kN	1.3×10^{-3}	
		(2 ~ 5) kN	1.7×10^{-3}	
		(5 ~ 10) kN	1.6×10^{-3}	
		(10 ~ 20) kN	1.4×10^{-3}	
		(20 ~ 50) kN	1.4×10^{-3}	
		(50 ~ 100) kN	1.6×10^{-3}	
		(100 ~ 200) kN	1.7×10^{-3}	
		(200 ~ 500) kN	1.9×10^{-3}	
		(500 ~ 1 000) kN	1.7×10^{-3}	
		(1 000 ~ 2 000) kN	1.6×10^{-3}	
push-pull gauge	20204			Weights/CTCI-20204
Tension		(0.005 ~ 1) kN	6.5×10^{-4}	
Compression		(0.005 ~ 1) kN	6.5×10^{-4}	

204. Pressure

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Hydraulic pressure ballances	20404	(0.2 ~ 200) MPa	8.8×10^{-5}	Hydraulic pressure ballances /CTCI-20404
Absolute pressure gauges	20406	(0.02 ~ 7) MPa abs.	1.4×10^{-4}	Digital pressure gauges /CTCI-20406
Blood pressure gauges	20407	(0 ~ 40) kPa	2.5×10^{-3}	Pressure generators/controllers /CTCI-20407
Compound pressure gauges	20408	-100 kPa ~ 7 MPa	3.0×10^{-4}	Digital pressure gauges /CTCI-20408
Differential pressure gauges	20409	(0 ~ 20) kPa (0.02 ~ 7) MPa	5.5×10^{-3} 8.6×10^{-5}	Pneumatic pressure ballances/ CTCI-20409
Gauge pressure gauges Dial, Digital	20411	(0 ~ 20) kPa (0.02 ~ 7) MPa (7 ~ 70) MPa (70 ~ 200) MPa	5.5×10^{-3} 8.6×10^{-5} 1.4×10^{-4} 1.0×10^{-4}	Pneumatic pressure ballances/ CTCI-20411 Hydraulic pressure ballances/ CTCI-20404
Pressure transducers/transmitters	20412	(0.02 ~ 7) MPa abs. (0 ~ 20) kPa (0.02 ~ 70) MPa (70 ~ 200) MPa	5.7×10^{-4} 5.5×10^{-3} 5.7×10^{-4} 6.0×10^{-4}	Pneumatic pressure ballances/ CTCI-20412 Hydraulic pressure ballances/ CTCI-20404
Dial type vacuum gauges	20413	(-100 ~ 0) kPa	3.0×10^{-3}	Digital pressure gauges /CTCI-20413