

ETC.



Carton

IMADA



SHINKO



AHLBORN



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ETC.





## Point Master PRO Series

CYLINDRICAL Shank Type

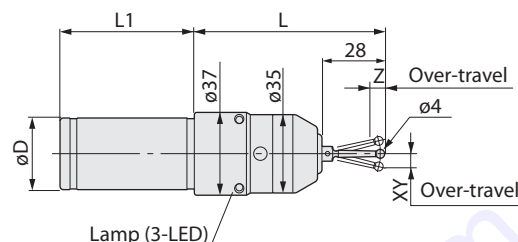


### FEATURES

- POINT MASTER PRO Series is a precision 3-D touch sensor which will operate in non-conductive as well as conductive applications, Resin, ceramic or coated workpieces, machines with ceramic spindle taper or bearings can all be accommodated etc.



### DIMENSION



For all materials, including non-conductive cutting tools, workpieces, and machine tools.

### SPECIFICATIONS

Model	øD (h7)	L	L1	Repeatability (Probe)	Over-Travel		Measuring Pressure (N)		Battery	Battery Life (Continuous Use)	Standard Stylus	Weigh (kg)
					XY	Z	XY	Z				
PMP-10	10	75	49	±1μm (2σ)	±12	5	0.4	1.5	Panasonic Lithium BR435x1	20hours	ST28-4R	0.4
PMP-20	20	90	50						LR1x2	50hours		0.5
PMP-32	32	80	60									0.6

- PMP-10 have one LED only.
- Above table indicates the specification when using stylus ST28-4R.
- There is approx 5μm lag in X & Y directions and approx. 2μm lag in Z direction to illuminate LED lamp when stylus touches workpiece surface.



## Point Master PRO Series

BBT Shank Type JIS B 6339 (BIG-PLUS)

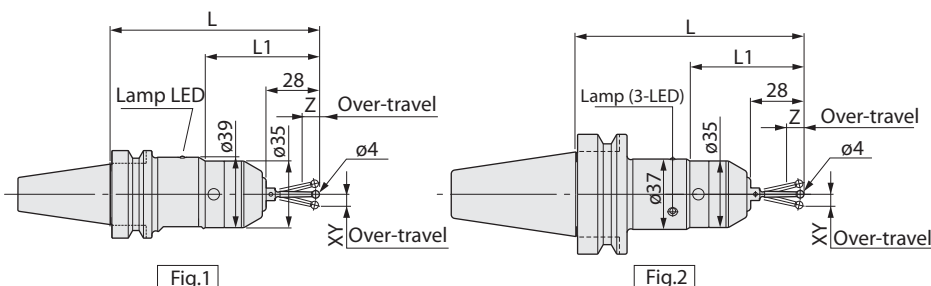


### FEATURES

- POINT MASTER PRO Series is a precision 3-D touch sensor which will operate in non-conductive as well as conductive applications, Resin, ceramic or coated workpieces, machines with ceramic spindle taper or bearings can all be accommodated etc.



### DIMENSION



### SPECIFICATIONS

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	Fig.	BBT No.	L	L1	Repeatability (Probe)	Over-Travel		Measuring Pressure (N)		Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
						XY	Z	XY	Z				
BBT30-PMP-110	1	30	110	60	±1μm	±12	5	0.4	1.5	SR44x2	24hours	ST28-4R	0.8
BBT40-PMP-120	2	40	120	60	(2σ)					50hours	1.3		

- BBT30-PMP-110 have one LED only.
- Above table indicates the specification when using stylus ST28-4R.
- There is approx 5μm lag in X & Y directions and approx. 2μm lag in Z direction to illuminate LED lamp when stylus touches workpiece surface.



## Point Master PRO Series

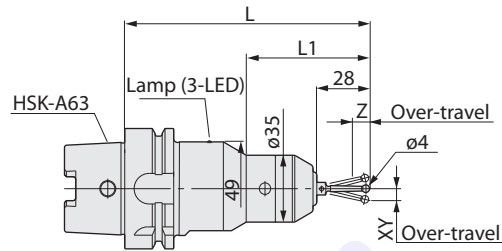
HSK Shank Type ISO12164&DIN69893-1

### FEATURES

- POINT MASTER PRO Series is a precision 3-D touch sensor which will operate in non-conductive as well as conductive applications, Resin, ceramic or coated workpieces, machines with ceramic spindle taper or bearings can all be accommodated etc.



### DIMENSION



### SPECIFICATIONS

Model	HSK No.	L	L1	Repeatability (Probe)	Over-Travel		Measuring Pressure (N)		Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
					XY	Z	XY	Z				
HSK-A63-PMP-130	63	130	65	$\pm 1\mu\text{m}(2\sigma)$	$\pm 12$	5	0.4	1.5	CR2x1	24hours	ST28-4R	1.3

- Above table indicates the specification when using stylus ST28-4R.
- There is approx 5 $\mu\text{m}$  lag in X & Y directions and approx . 2 $\mu\text{m}$  lag in Z direction to illuminate LED lamp when stylus touches workpiece surface .

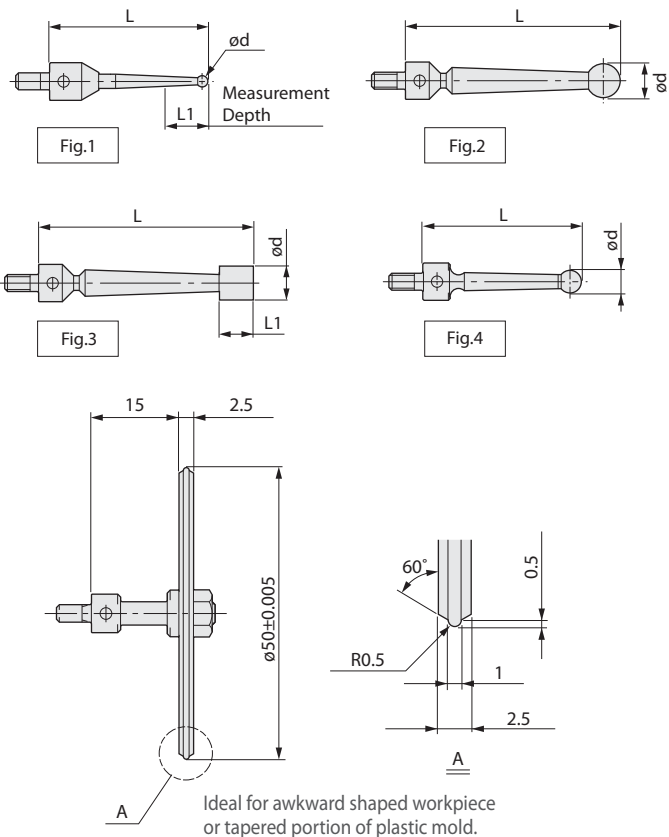


## Point Master PRO Series

ALTERNATIVE STYLII



### DIMENSION



### FEATURES

- POINT MASTER PRO Series is a precision 3-D touch sensor which will operate in non-conductive as well as conductive applications, Resin, ceramic or coated workpieces, machines with ceramic spindle taper or bearings can all be accommodated etc.
- The stylus (M3 thread) is replaceable. Please replace when different model of stylus required or if damaged.

### SPECIFICATIONS

Model	Fig.	L	L1	ød	Material	Series
ST28-1P	1	28	2	1	Carbide	PMG-PMC-PMP
ST28-2P			8	2		
ST28-3P			-	3		
ST28-4P			-	4		
ST38-6P	2	38	-	6	Steel (SUS)	PMG-PMC
ST38-6x6	3		6	6		PMG□□S-PMC□□S
ST28-4R	4		-	4	Ruby	PMP

\* Stylus model ST38-6x6 is exclusive for PMG□□S and PMC□□S series.  
Runout accuracy may worsen when used on PMG or series without "S".

Model ST15-50K

\* PMG&PMC-Series only.

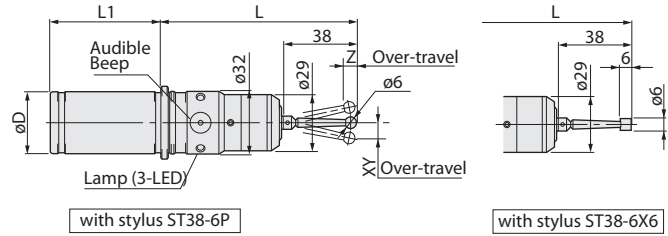


## Point Master PMC Series

CYLINDRICAL Shank Type



### DIMENSION



### FEATURES

- POINT MASTER Series is a precision 3-D touch sensor to center and measure the workpiece.
- LED lamp illuminates when the stylus touches the workpiece.
- Stroke of stylus provides sufficient over-travel for safety.



For use with conductive cutting tools, workpieces, and machine tools.

### SPECIFICATIONS

Model	øD h7	L	L <sub>1</sub>	Repeatability (Probe)	Over-Travel XY Z	Measuring Pressure (N) XY Z	Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
PMC-20	20	110	50	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6P	0.4
PMC-32	32	102	58							0.6
PMC-20S	20	110	50	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6x6	0.4
PMC-32S	32	102	58							0.6

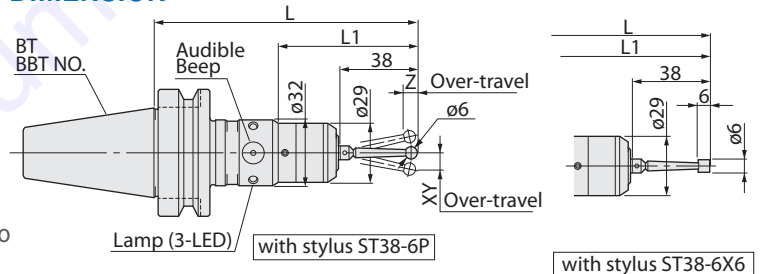
- ST38-6x6 cylindrical stylus is mounted on models with "S".
- Above table indicates the specification when using standard stylus.



## Point Master PMC Series

BT Shank Type

### DIMENSION



### FEATURES

- POINT MASTER Series is a precision 3-D touch sensor to center and measure the workpiece.
- LED lamp illuminates when the stylus touches the workpiece.
- Stroke of stylus provides sufficient over-travel for safety.



### SPECIFICATIONS

BT40/50 JIS B 6339

Model	BT No.	L	L <sub>1</sub>	Repeatability (Probe)	Over-Travel XY Z	Measuring Pressure (N) XY Z	Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
BT40-PMC-130	40	130	69	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6P	1.2
BT50-PMC-160	50	160					LR03x2	50hours		4.0
BT40-PMC-130S	40	130	69	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6x6	1.2
BT50-PMC-160S	50	160					LR03x2	50hours		4.0

- ST38-6x6 cylindrical stylus is mounted on models with "S".
- Above table indicates the specification when using standard stylus.



BBT40/50 JIS B 6339 (BIG-PLUS)

BIG-PLUS tools can be used in machining centers with conventional spindles.

Model	BBT No.	L	L <sub>1</sub>	Repeatability (Probe)	Over-Travel XY Z	Measuring Pressure (N) XY Z	Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
BBT40-PMC-130	40	130	69	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6P	1.2
BBT50-PMC-160	50	160					LR03x2	50hours		4.0
BBT40-PMC-130S	40	130	69	±1μm (2σ)	±12 5	0.6 3	LR1x2	33hours	ST38-6x6	1.2
BBT50-PMC-160S	50	160					LR03x2	50hours		4.0

- ST38-6x6 cylindrical stylus is mounted on models with "S".
- Above table indicates the specification when using standard stylus.





## Point Master PMG Series

CYLINDRICAL Shank Type

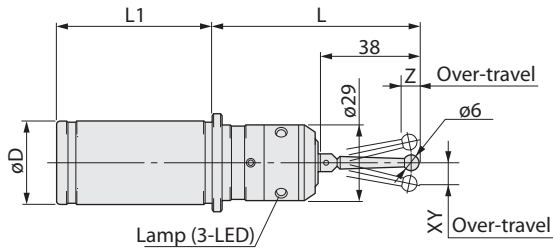


### FEATURES

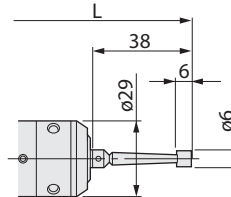
- LED lamp illuminates when the stylus touches the workpiece.



### DIMENSION



with stylus ST38-6P



with stylus ST38-6X6

For use with conductive cutting tools, workpieces, and machine tools.

### SPECIFICATIONS

Model	$\phi D$ h7	L	L <sub>1</sub>	Repeatability (Probe)	Over-Travel		Measuring Pressure (N)		Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
					XY	Z	XY	Z				
PMG-10	10	75	50	$\pm 1\mu m$ (2 $\sigma$ )	$\pm 12$	5	0.6	3	Panasonic Lithium BR435x1	12hours	ST38-6P	0.2
PMG-20	20	90	60						LR1x2	25hours		0.3
PMG-32	32	80	60						LR1x2	25hours		0.5
PMG-10S	10	75	50	$\pm 1\mu m$ (2 $\sigma$ )	$\pm 12$	5	0.6	3	Panasonic Lithium BR435x1	12hours	ST38-6x6	0.2
PMG-20S	20	90	60						LR1x2	25hours		0.3
PMG-32S	32	80	60						LR1x2	25hours		0.5

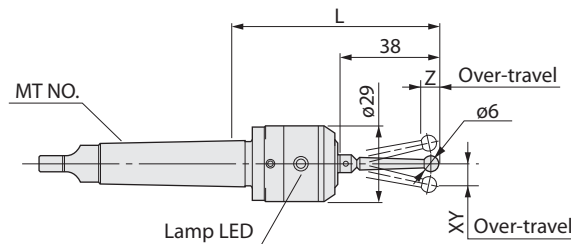
1. PMG-10 and PMG-10S have one LED only.
2. ST38-6x6 cylindrical stylus is mounted on models with "S".
3. Above table indicates the specification when using standard stylus.



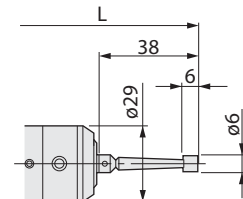
## Point Master PMG Series

MORSE TAPER Shank Type

### DIMENSION



with stylus ST38-6P



with stylus ST38-6X6

### FEATURES

- LED lamp illuminates when the stylus touches the workpiece.



### SPECIFICATIONS

Model	MT No.	L	Repeatability (Probe)	Over-Travel		Measuring Pressure (N)		Battery	Battery Life (Continuous Use)	Standard Stylus	Weight (kg)
				XY	Z	XY	Z				
PMG-MT2	MT2	80	$\pm 1\mu m$ (2 $\sigma$ )	$\pm 12$	5	0.6	3	Panasonic Lithium BR435x1	12hours	ST38-6P	0.2
PMG-MT2S										ST38-6x6	0.2

1. PMG-MT2 and PMG-MT2S have one LED only.
2. ST38-6x6 cylindrical stylus is mounted on models with "S".
3. Above table indicates the specification when using standard stylus.



## Base Master Series BASE MASTER



### FEATURES

- BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.  
Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.
- The most popular Base Master model with  $\pm 1\mu\text{m}$  accuracy.  
Operates when a conductive circuit is completed.

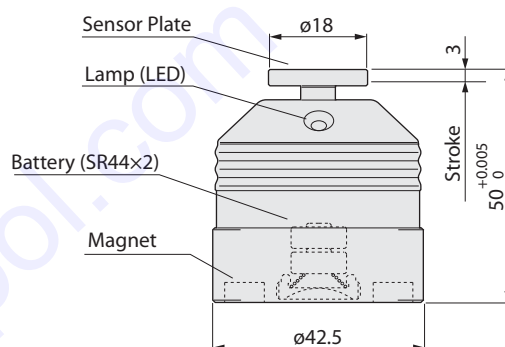


For use with conductive cutting tools, workpieces, and machine tools.

### SPECIFICATIONS

Model	BM-50
Height Accuracy	$50^{+0.005}_0$ mm
Measureable Pressure	3N
Repeatability Accuracy	$\pm 1\mu\text{m}(2\sigma)$
Min. Measurable Tool Diameter	$\phi 1\text{mm}$
Battery Life	10hours(continuous use)
Weight	0.23kg

### DIMENSION



## Base Master Series BASE MASTER GOLD

### FEATURES

- BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.  
Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.
- Suitable for various tools and workpieces, including non-conductive materials such as ceramics.

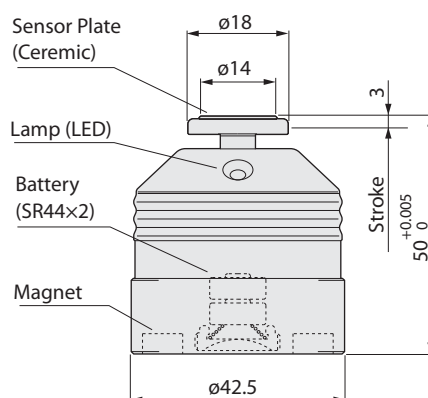


For all materials, including non-conductive cutting tools, workpieces, and machine tools.

### SPECIFICATIONS

Model	BM-50G
Height Accuracy	$50^{+0.005}_0$ mm
Measureable Pressure	3N
Repeatability Accuracy	$\pm 1\mu\text{m}(2\sigma)$
Min. Measurable Tool Diameter	$\phi 1\text{mm}$
Battery Life	10hours(continuous use)
Weight	0.24kg

### DIMENSION





## Base Master Series

### BASE MASTER GOLD

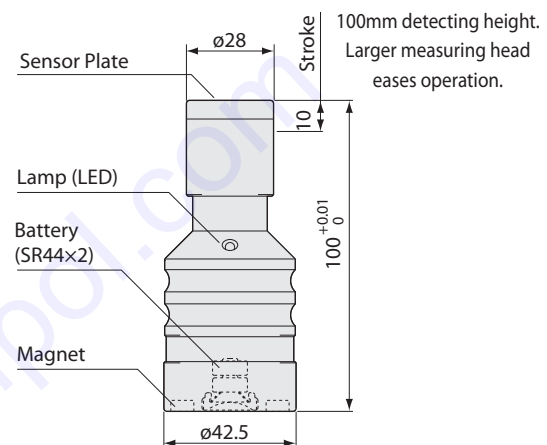


#### FEATURES

- BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.  
Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.
- Suitable for various tools and workpieces, including non-conductive materials such as ceramics.



#### DIMENSION



For all materials, including non-conductive cutting tools, workpieces, and machine tools.

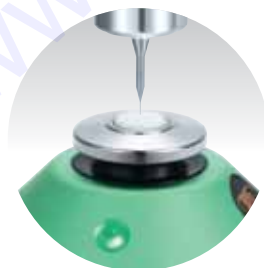
#### SPECIFICATIONS

Model	BM-100G
Height Accuracy	100 <sup>+0.01</sup> mm
Measurable Pressure	2N
Repeatability Accuracy	±1μm(2σ)
Min. Measurable Tool Diameter	ø1mm
Battery Life	10hours(continuous use)
Weight	0.36kg



## Base Master Series

### BASE MASTER MICRO PAT.P



Pre-set **ø0.05mm** tools.  
Considerable reduction of set-up time for small dia. tools.

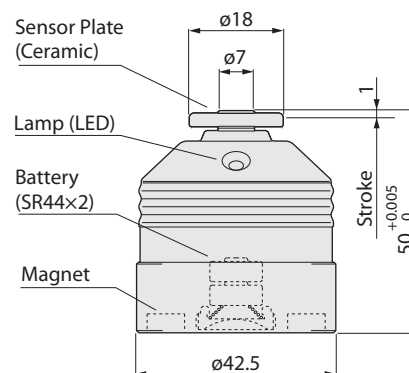
For all materials, including non-conductive cutting tools, workpieces, and machine tools.

#### FEATURES

- BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.  
Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.
- Specifically designed for micro cutting tools.  
Low measuring pressure protects the cutting edge.



#### DIMENSION



#### SPECIFICATIONS

Model	BM-50M
Height Accuracy	50 <sup>+0.005</sup> mm
Measurable Pressure	0.3N
Repeatability Accuracy	±1μm(2σ)
Min. Measurable Tool Diameter	ø0.05mm
Battery Life	10hours(continuous use)
Weight	0.24kg



## Base Master Series

BASE MASTER mini



Protection cover  
with magnifier(X5)



### FEATURES

- BASE MASTER Series is a precision touch sensor to determine workpiece offsets and tool length.
- Mounted on workpiece surface or machine table, LED lamp illuminates immediately when the cutting edge touches the sensor plate and the position is detected.
- World smallest 20mm body diameter.
- Best suited to measurement in complicated shapes and limited space.
- High intensity Blue LED indication when the offset position is detected.

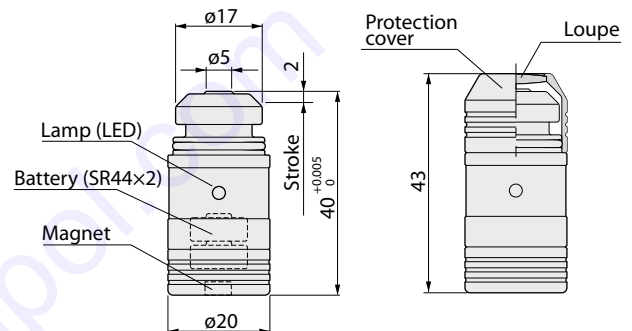


For all materials,  
including non-conductive  
cutting tools, workpieces,  
and machine tools.

### SPECIFICATIONS

Model	BMM-20
Height Accuracy	40 <sup>+0.005</sup> mm
Measureable Pressure	1.8N
Repeatability Accuracy	±1μm(2σ)
Min. Measurable Tool Diameter	ø0.1mm
Battery Life	10hours(continuous use)
Weight	55g

### DIMENSION



## Tool Master

### FEATURES

- TOOL MASTER is a precision touch sensor with a large dial gauge.
- LED lamp and sound pre-indicate approach to 100mm height to ease the detecting operation.



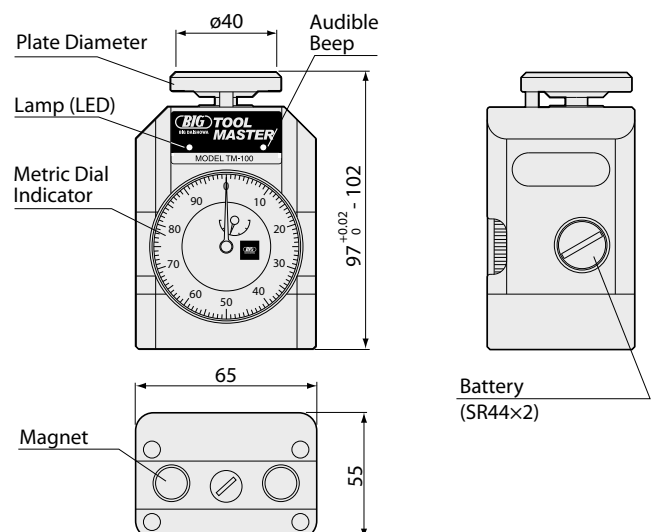
For all materials,  
including non-conductive  
cutting tools, workpieces,  
and machine tools.

### SPECIFICATIONS

Model	TM-100
Height Accuracy	100 <sup>+0.02</sup> mm
Stroke	5mm
Stroke Range	97 - 102mm
Measureable Pressure	6N(100mm)
Weight	1.2kg
Dial	Graduation 0.01mm
Gauge	Indication Tolerance ±15μm
	Repeatability 5μm
	Return Tolerance 5μm

\*Dial gauge accuracy in accordance with JISB7503:1997.

### DIMENSION



**Carton**

## Stereo Microscopes

NSW Series



PFM-X

PFM-IFH

BRT-IFM

### SPECIFICATIONS

### FEATURES

- A dual magnification of 6X & 20X, 10X & 20X, 10X & 30X, 20X & 40X.
- A fix magnification of 10X, 20X
- Standard eyepiece 10X
- a wide variety of stand and illuminator are available to suit many different applications.

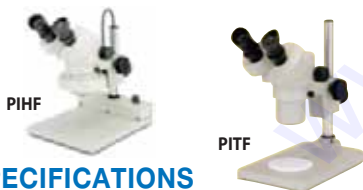
Models	NSW-0.6/2	NSW-12	NSW-13	NSW-24
<b>Magnification</b>	6X (38.3mm)	10X (23.0mm)	10X (23.0mm)	20X (11.5mm)
<b>(Field of View)</b>	20X (11.5mm)	20X (11.5mm)	30X (7.6mm)	40X (5.7mm)
<b>Objective Lenses</b>	0.6x & 2x	1x & 2x	1x & 3x	2x & 4x
<b>Eyepieces</b>	Wide Field 10x (DSW 10x) (Field number : 23)			
<b>Optical Body</b>	360° rotatable binocular type, 45° inclined eyepiece tube			
<b>Working Distance</b>	82.5mm	82.5mm	82.5mm	64.3mm
<b>Interpupillary Distance</b>	52mm to 75mm			
<b>Diopter Adjustment</b>	+5.6D - 7.2D on left eyepiece tube			

Models Stand Type	PFM-IFH	PFM-X	BRT-IFM
<b>Incident Light</b>	Fluorescent Lamp 9W	Nil	Fluorescent Lamp 9W
<b>Transmitted Light</b>	Nil		Fluorescent Lamp 5W
<b>Stage Plate</b>	Nil		Frosted glass plate (Ø = 80mm) Frosted blue filter (Ø = 37mm)
<b>Base</b>	220 mm x 284 mm		160 mm x 219 mm
<b>Height</b>	327 mm		352 mm
<b>Net Weight</b>	5.1 kg	4.3 kg	3.8 kg
<b>Accessories</b>	Rubber eyeguard, Tension control pin, Dust cover		

**Carton**

## Stereo Microscopes

DSZ Series



PIHF

PITF

### SPECIFICATIONS

### FEATURES DSZ44

- A zoom magnification of 10X to 44X
- Zoom ratio 4.4 : 1
- Standard eyepiece 10X
- A wide range of magnification from 2.5X to 140.8X is available with optional lens.

### FEATURES DSZ70

- A zoom magnification of 20X to 70X
- Zoom ratio 3.5 : 1
- Standard eyepiece 10X
- A wide range of magnification from 5X to 224X is also available with optional lens.

Models	DSZ-44			DSZ-70	
Magnification	10x to 44x (field of view : 23mm to 5.2mm)			20x to 70x (field of view : 10mm to 2.8mm)	
Objective Lenses	1.0x to 4.4x (zoom ratio : 4.4:1)			2.0x to 7.0x (zoom ratio : 3.5:1)	
Eyepieces	Wide Field 10x (DSW10x) (Field number : 23)			Wide Field 10x (DSW10x) (Field number : 20)	
Working Distance	90mm			80mm	
Optical Body	360° rotatable binocular type, 45° inclined eyepiece tube				
Interpupillary Distance	52mm to 75mm				
Diopter Adjustment	+ 5.6D - 7.2D on both eyepiece tubes				
Stand Type	PFM-IFH	PIHF	PFM-X	PITF	BRF-IFH
	Pole type (250mm)			Pole type (303mm)	Regular type
Incident Light	Fluorescent Lamp 9W	Fluorescent Lamp 9W w/dimmer	Nil	Fluorescent Lamp 9W	Fluorescent Lamp 9W
Transmitted Light	Nil			Fluorescent Lamp 5W	Fluorescent Lamp 5W
Stage Plate	Nil			Round plastic stage (ø = 80mm)	Frosted glass plate (ø = 80mm) Frosted blue filer (ø = 37mm)
Base	220mm x 284mm			180mm x 265mm	160mm x 219mm
Height	327mm			328mm	352mm
Net Weight	5.4kg		4.7kg	5.4kg	4.4kg
Accessories	Rubber eyeguard, Tension control, Dust cover				



# Stereo Microscopes

**Carton**

## Stereo Microscopes

SPZ 50 Series



SPZ-50PFM-LED



SPZ-50UNF-SM

### FEATURES

- A high power range
- A zoom magnification of 6.7X to 50X
- Zoom ratio 7.50 : 1
- Standard eyepiece 10X
- A wide range of magnification from 3.35X to 200X is available with optional lens.

### SPECIFICATIONS

Models	SPZ-50PFM-IFM	SPZ-50PFM-LED	SPZ-50PFM-X	SPZT-50PITF-M	SPZT-50UNF-SM
Magnification	6.7x to 50x (field of view : 34.3mm to 3.6mm)				
Objective Lenses	0.67x to 5.0x (zoom ratio : 7.50:1)				
Eyepieces	Wide Field 10x (DSW10x) (Field number : 23)				
Optical Body	360° rotatable Trinocular type, 45° inclined eyepiece tube				
	Nil	Nil	Nil	& Verticle tube	& Verticle tube
Working Distance	108mm				
Interpupillary Distance	52mm to 75mm				
Diopter Adjustment	±7.2D on both eyepiece tubes & ±8D on Verticle tube				
Stand Type	Pole type (250mm)			Pole type (303mm)	Universal type (488mm)
Incident Light	Fluorescent Lamp 9W	LED Lamp 6W w/dimmer	Nil	Fluorescent Lamp 9W	Fluorescent Lamp 9W
Transmitted Light	Nil			Fluorescent Lamp 5W	Nil
Stage Plate	Nil			Round plastic stage (ø = 80mm)	
Base	220mm x 284mm			180mm x 265mm	230mm x 230mm
Height	372mm			382mm	488mm
Accessories	Rubber eyeguards, Tension control, Dust cover				

**Carton**

## Microscopes System

MZL-745 / MICRO-M



### FEATURES

Model MZL-745 macro zoom lens offers cost-effective PC/TV microscopy system. The MZL-745 is available as a monocular with eyepiece. An eyepiece 10x and a C-mount adapter are provided as standard accessories.

### SPECIFICATIONS

Models	Detail
MZL-745/MICRO-M	Macro zoom lens 0.7x-4.5x
	Pole stand and holder with built-in 9W ring fluorescent light
	CMOS camera with USB interface

IMADA Digital Force Gauges  
DS2 Popular Model



SPECIFICATIONS



DS2 set

Accuracy	±0.2% F.S. ±1 digit
Display	4-digit LCD
Display Update	10 times/sec
Sampling Rate	1000 times/sec or more
Battery Usage	10 hours (Approx. 10 hours for charging)
Overload Capacity	Approx. 200% F.S.
Measuring Units	kgf/N/lbf or gf/N/ozf selectable
Power Supply	Internal NiMH rechargeable batteries or AC adapter
Temperature Range	0~+40°C
Humidity Range	20~80%RH
Functions	Peak holding Comparator Display reversing Damping (2-step)
Output	Digital (RS232C) Analog voltage Approx. ±1V F.S. Mitutoyo Digimatic
Overload Warning	Approx. 110% F.S. (LCD blinks)
Weight	Approx. 420g
Dimensions	W66xD33xH189mm
Included	6 attachments (Small Hook, Flat Tip, Conical Tip, Chisel Tip, Notched Tip, Extension Shaft) AC adapter Carrying case Instruction manual Inspection certificate

Model	Capacity	Indication	Resolution	Measuring Shaft
DS2-2N	2N(200gf)	2.000N(200.0gf)	0.001N(0.1gf)	M6
DS2-5N	5N(500gf)	5.000N(500.0gf)	0.001N(0.1gf)	M6
DS2-20N	20N(2kgf)	20.00N(2.000kgf)	0.01N(0.001kgf)	M6
DS2-50N	50N(5kgf)	50.00N(5.000kgf)	0.01N(0.001kgf)	M6
DS2-200N	200N(20kgf)	200.0N(20.00kgf)	0.1N(0.01kgf)	M6
DS2-500N	500N(50kgf)	500.0N(50.00kgf)	0.1N(0.01kgf)	M6
DS2-1000N	1000N(100kgf)	1000N(100.0kgf)	1N(0.1kgf)	M6

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness  
Etc.

# Push-Pull Gauge

## IMADA Digital Force Gauges

ZP/Z2 Standard Model



### SPECIFICATIONS



CE



ZP/Z2 set

Model	ZP/ZPS/ZPH (USB model)	Z2/Z2S/Z2H (NON-USB model)
Accuracy	±0.2% F.S. ±1 digit	
Display	4-digit LCD	
Display Update	10 times/sec	
Sampling Rate	1000 times/sec or more	
Battery Usage	8 hours (Approx. 10 hours for charging)	
Overload Capacity	Approx. 200% F.S.	
Measuring Units	kgf/(k)N /lbf or gf/N/ozf selectable	
Power Supply	Internal NiMH rechargeable battery, AC adapter	
Temperature and Humidity Range	Temperature: 0~+40°, Humidity range: 20~80%RH	
Functions	Peak hold, Memory (1000 data), Comparator, Display reverse, Auto zero clear, Alarm, Auto power off, Damping	
Output	RS232C, Analog voltage ±2V F.S.	
	Comparator ± NG or OK, Overload	
	USB	Mitutoyo digimatic
Overload Warning	Approx. 110% F.S. (LED flash, alarm)	
External Connecting Switch	HOLD, ZERO, PEAK	

Model	Capacity	Display	Resolution	Measuring Shaft
ZP(Z2)-2N	2N(200gf)	2.000N(200.0gf)	0.001N(0.1gf)	M6
ZP(Z2)-5N	5N(500gf)	5.000N(500.0gf)	0.001N(0.1gf)	M6
ZP(Z2)-20N	20N(2kgf)	20.00N(2.000kgf)	0.01N(0.001kgf)	M6
ZP(Z2)-50N	50N(5kgf)	50.00N(5.000kgf)	0.01N(0.001kgf)	M6
ZP(Z2)-100N	100N(10kgf)	100.0N(10.00kgf)	0.1N(0.01kgf)	M6
ZP(Z2)-200N	200N(20kgf)	200.0N(20.00kgf)	0.1N(0.01kgf)	M6
ZP(Z2)-500N	500N(50kgf)	500.0N(50.00kgf)	0.1N(0.01kgf)	M6
ZP(Z2)-1000N	1000N(100kgf)	1000N(100.0kgf)	1N(0.1kgf)	M6

## IMADA Digital Force Gauges

ZPS/Z2S Separate Sensor Model

### SPECIFICATIONS



CE

ZPS/Z2S set

Model	Capacity	Display	Resolution	Measuring Shaft
ZPS(Z2S)-DPU-2N	2N(200gf)	2.000N(200.0gf)	0.001N(0.1gf)	M6
ZPS(Z2S)-DPU-5N	5N(500gf)	5.000N(500.0gf)	0.001N(0.1gf)	M6
ZPS(Z2S)-DPU-20N	20N(2kgf)	20.00N(2.000kgf)	0.01N(0.001kgf)	M6
ZPS(Z2S)-DPU-50N	50N(5kgf)	50.00N(5.000kgf)	0.01N(0.001kgf)	M6
ZPS(Z2S)-DPU-100N	100N(10kgf)	100.0N(10.00kgf)	0.1N(0.01kgf)	M6
ZPS(Z2S)-DPU-200N	200N(20kgf)	200.0N(20.00kgf)	0.1N(0.01kgf)	M6
ZPS(Z2S)-DPU-500N	500N(50kgf)	500.0N(50.00kgf)	0.1N(0.01kgf)	M6
ZPS(Z2S)-DPU-1000N	1000N(100kgf)	1000N(100.0kgf)	1N(0.1kgf)	M10
ZPS(Z2S)-DPU-2000N	2000N(200kgf)	2000N(200.0kgf)	1N(0.1kgf)	M10
ZPS(Z2S)-DPU-5000N	5000N(500kgf)	5000N(500.0kgf)	1N(0.1kgf)	M10
ZPS(Z2S)-DPU-10kN	10kN(1000kgf)	10.00kN(1000kgf)	0.01kN(1kgf)	female screw
ZPS(Z2S)-DPU-20kN	20kN(2000kgf)	20.00kN(2000kgf)	0.01kN(1kgf)	female screw

- No attachment is included with ZPS/Z2S-DPU-10kN or higher. Those models do not have measuring shaft but there is a female screw in place of a measuring shaft.
- Other type of load cells are available as option.
- When you connect a load cell to an amplifier, the amplifier must be adjusted according to the load cell.



## Mechanical Force Gauges (Push-Pull Scale)

FB/FS Popular Model



FB/FS set

### FEATURES

- Accuracy:  $\pm 0.3\%$  F.S.
- Stroke: 10mm
- Graduation: 100 lines (120 lines for 30N, 300N, 3K, 30K, 30lb)
- Measurement mode: Track and peak mode (selectable)
- Peak hold function
- Measuring shaft: M6
- Use temperature:  $0 \sim +40^{\circ}\text{C}$
- Weight: Approx. 600g
- Dimension: W67xD48xH232.5mm
- Included: 6 attachments (Small Hook, Flat Tip, Conical Tip, Chisel Tip, Notched Tip, Extension Shaft), Carrying case, Instruction manual, Inspection certificate

### SPECIFICATIONS

Model	Capacity	Resolution
FB-10N	10N	0.1N
FB-20N	20N	0.2N
FB-30N	30N	0.25N
FB-50N	50N	0.5N
FB-100N	100N	1N
FB-200N	200N	2N
FB-300N	300N	2.5N
FB-500N	500N	5N

Model	Capacity	Resolution
FS-1K	1kgf	10gf
FS-2K	2kgf	20gf
FS-3K	3kgf	25gf
FB-5K	5kgf	50gf
FB-10K	10kgf	100gf
FB-20K	20kgf	200gf
FB-30K	30kgf	250gf
FB-50K	50kgf	500gf

Model	Capacity	Resolution
FB-5lb	5lbf	0.05lbf
FB-10lb	10lbf	0.1lbf
FB-20lb	20lbf	0.2lbf
FB-30lb	30lbf	0.25lbf
FB-50lb	50lbf	0.5lbf
FB-100lb	100lbf	1lbf



## Mechanical Force Gauges (Push-Pull Scale)

PS/PSS Standard Model



PS/PSS set

### FEATURES

- Accuracy:  $\pm 0.1\%$  F.S.
- Stroke: 10mm
- Graduation: 100 lines (120 lines for 30N, 300N, 3K, 30K, 30lb)
- Measurement mode: Track and peak mode (selectable)
- Peak hold function
- Measuring shaft: M6
- Use temperature:  $0 \sim +40^{\circ}\text{C}$
- Weight: Approx. 600g
- Dimension: W67xD48xH232.5mm
- Included: 8 attachments (Small Hook, Flat Tip, Conical Tip, Chisel Tip, Notched Tip, Extension Shaft, Large Hook, Y Hook), Carrying case, Instruction manual, Inspection certificate

### SPECIFICATIONS

Model	Capacity	Resolution
PS-5N	5N	0.05N
PS-10N	10N	0.1N
PS-20N	20N	0.2N
PS-30N	30N	0.25N
PS-50N	50N	0.5N
PS-100N	100N	1N
PS-200N	200N	2N
PS-300N	300N	2.5N
PS-500N	500N	5N

Model	Capacity	Resolution
PSS-0.5K	500gf	5gf
PSS-1K	1kgf	10gf
PSS-2K	2kgf	20gf
PSS-3K	3kgf	25gf
PS-5K	5kgf	50gf
PS-10K	10kgf	100gf
PS-20K	20kgf	200gf
PS-30K	30kgf	250gf
PS-50K	50kgf	500gf

Model	Capacity	Resolution
PS-5lb	5lbf	0.05lbf
PS-10lb	10lbf	0.1lbf
PS-20lb	20lbf	0.2lbf
PS-30lb	30lbf	0.25lbf
PS-50lb	50lbf	0.5lbf
PS-100lb	100lbf	1lbf



## Mechanical Force Gauges (Push-Pull Scale)

PSM Precision Model



### FEATURES

- Accuracy:  $\pm 0.1\%$  F.S.
- Stroke: 10mm
- Graduation: 200 lines (150 lines for 30N, 300N, 3K, 30K)
- Measurement mode: Track and peak mode (selectable)
- Peak hold function
- Measuring shaft: M6
- Use temperature: 0~+40°C
- Weight: Approx. 600g
- Dimension: W67xD48xH232.5mm
- Included: 8 attachments (Small Hook, Flat Tip, Conical Tip, Chisel Tip, Notched Tip, Extension Shalt, Large Hook, Y Hook), Carrying case, Instruction manual, Inspection certificate

Model	Capacity	Resolution
PSM-2K	2kgf	10gf
PSM-3K	3kgf	20gf
PSM-5K	5kgf	25gf
PSM-10K	10kgf	50gf
PSM-20K	20kgf	100gf
PSM-30K	30kgf	200gf
PSM-50K	50kgf	250gf



## Lever Operation SVL-1000N/ Handle Operation SVH-1000N



### SPECIFICATIONS

Model	SVL-1000N	SVH-1000N
Capacity	1000N	
Force Direction	Tension and Compression	
Travel Method	Lever	Handle
Travel per 1 Turn	60mm per 170 degree	3mm
Stroke	60mm	
Function	Mechanical Stopper	
Weight	Approx. 7.3kg	Approx. 7.7kg
Dimension	See Next Pages	
Fixable Force Gauge	Digital Force Gauge : DS2, Z2, ZP Series Mechanical Force Gauge : FB, PS, PSM Series	

### FEATURES

- Up to 1000N measurement
- Stroke control by mechanical stopper
- Various options are available
- Easy carry with light weight



## Motorized Test Stands

**IMADA**

**MX-500N (Automatic/ Manual operation)**

**MV-500NII (Manual operation)**



MX-500N



Model	MX-500N	MV-500NII
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### FEATURES

Standard model covers low-load up to 500N. This stand covers from quality control to material testing as tension-compression tester. High functional MX series and basic MV series are available.

#### MX-500N function

- Single/ continuous cycle function
- Fix speed/ adjustable speed mode select
- Overload brake (work with Z series)
- Force control mode (work with Z series)

### SPECIFICATIONS

- Capacity: 500N(50kgf)
- Stroke: 288mm
- Speed : 10~300mm/min non-step adjustable
- Power supply: AC100~240V
- Safety feature: Upper/ lower limit, Emergency button
- Weight: Approx. 18kg
- Dimension: W214xD428xH574mm

#### Optional function

- Speed/ length meter (-E)
- Timer unit (-TM)
- Digimatic length meter (-S)
- Extended stroke (-L550)
- Another speed range

## Motorized Test Stands

**IMADA**

**MX-1000N (Automatic/ Manual operation)**

**MV-1000N (Manual operation)**



MX-1000N



Model	MX-1000N	MV-1000N
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### FEATURES

Standard model covers low-load up to 1000N. This stand covers from quality control to material testing as tension-compression tester. High functional MX series and basic MV series are available.

#### MX-1000N function

- Single/ continuous cycle function
- Fix speed/ adjustable speed mode select
- Overload brake (work with Z series)
- Force control mode (work with Z series)

### SPECIFICATIONS

- Capacity: 1000N(100kgf)
- Stroke : 400mm
- Speed : 8~240mm/min non-step adjustable
- Power: AC100~240V
- Safety feature: Upper/ lower, limit, Emergency button
- Weight: Approx. 24kg
- Dimension: W263xD368xH903mm

#### Optional function

- Speed/ length meter (-E)
- Timer unit (-TM)
- Digimatic length meter (-S)
- Extended stroke (-L650)
- Another speed range

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness  
Etc.

# Push-Pull Gauge

## IMADA Standard Attachments / Optional Attachments

### Standard Attachments Accessories of force gauges.

#### Standard Capacity Model

Steel S-series are included in models up to 1000N/100kgf. Aluminum A-series are included in models under 100N/10kgf. DS2 and FB don't include large hook and Y hook. The model with capacity 1000N/100kgf includes small hook SR-1 instead of S-1. • Screw: M6

#### A-1/S-1/SR-1 Small Hook

- A-1 Weight: Approx. 3.1g
- S-1 Weight: Approx. 13g
- SR-1 Weight: Approx. 19g

#### A-2/S-2 Flat Tip

- A-2 Weight: Approx. 2.7g
- S-2 Weight: Approx. 13g

#### A-3/S-3 Conical Tip

- A-3 Weight: Approx. 1.7g
- S-3 Weight: Approx. 10g

#### A-4/S-4 Chisel Tip

- A-4 Weight: Approx. 1.8g
- S-4 Weight: Approx. 11g

#### A-5/S-5 Notched Tip

- A-5 Weight: Approx. 2.0g
- S-5 Weight: Approx. 11g

#### A-6/S-6 Extension Shaft

- A-6 Weight: Approx. 6.7g
- S-6 Weight: Approx. 27g

#### A-7/S-7 Large Hook

- A-7 Weight: Approx. 6.8g
- S-7 Weight: Approx. 44g

#### A-8/S-8 Y Hook

- A-8 Weight: Approx. 8.6g
- S-8 Weight: Approx. 58g

#### High Capacity Model

Included ZPH(Z2H), ZPS(Z2S)-DPU and PSH series (For capacity 1000N/100kgf to 5000N/500kgf). Not included with handles and installation bolts for ZPS(Z2S) series. • Screw: M10

#### B-1 Small Hook

- Weight: Approx. 59g

#### B-2 Flat Tip

- Weight: Approx. 29g

#### B-3 Conical Tip

- Weight: Approx. 33g

#### B-4 Chisel Tip

- Weight: Approx. 38g

#### B-5 Notched Tip

- Weight: Approx. 37g

#### B-6 Extension Shaft

- Weight: Approx. 102g

#### B-7 Handles

- Weight: Approx. 250g (1 piece)

#### B-8 Installation Bolts

- Weight: Approx. 16g

### SPECIFICATIONS

Optional Handle DOH-1, MOH-1 (For hand held use)

Model	DOH-1	MOH-1
Usable Gauge	Digital force gauge ZP/Z2, DS2	Mechanical force gauge PS/PSS, PSM, FB/FS
Weight	Approx. 740g	Approx. 805g



DOH-1

## IMADA Force Gauge Attachment

Fine Point Chuck / FP-50,51

Flat Chucks GC-1100 / GC-1200 / GC-5000

Hook for corrugated cardboard seal strength / DF-60

Optional Handle / FOH-1

Pin Grip / CP-150N

Small Grips / SC-3, SC-8

Wedge grip/KC - 100, 1001



# Universal Tensile Testing Machine



## Universal Testing Machine

SVZ - 200NB



This model of testing machine can perform various kinds of load measurement to 2kN maximum load. The efficiency on the drive is increased. It is compact in size and suitable for middle class load testings.

### CHARACTERISTICS

- It is force middle class. The operation is easy (due to) in the single column UP/DOWN axis.
- The drive type of the ball screw by single axis.
- It can be easily handled by exclusive software. (Option)

### USAGE EXAMPLE

- Material examinations of middle load.
- Various kinds of evaluation examination of machine parts and the products.

### OPTIONS

- Output of ANALOG/PRINTER  
This option is necessary for the connection to Analog recorder or printer.
- Special speed construction

### SPECIFICATIONS OF LOAD RANGE

Load Range	Maximum Load Display	Minimum Unit
2kN	2000N	1N
1kN	1000.0N	0.1N
500N	500.0N	
200N	200.0N	
100N	100.00N	0.01N
50N	50.00N	
20N	20.00N	

※ The usable range is recommended at 20~100% of each setting Load Range.

※ It is possible as an option to add Load Range other than the above listed.

### STANDARD SPECIFICATIONS

Model	SVZ-200NB-□ (※1)		
Maximum Load	2kN	Convenient Function	Memory function of the examination conditions
Load Display	[The specifications of Load Range] Reference		Peak/Bottom Hold function
Minimum Unit	[The combination of Load Range according to the model]		Cycle mode function
Load Precision	JIS 1 class (Indication value $\pm 1\%$ range)		Detect function of Break Point
Displacement Minimum Unit	0.01mm		Detect function of Start Point
Drive type	Brush less DC Motor		Auto Cancel/Auto Feed function
Speed Range	5~500mm/min		Auto Start Point Return function
Stroke	130mm		Judgment function
Sample Mounting Span	197~295mm	Output (※2)	USB
Distance of Sample to Column	100mm		
Table Size	100x150mm (With T-groove)	Power supply	AC100V 5A
Safety Device	Optional setting Upper and Lower Limit Over-load Prevention function	Weight	Approx 35kg
		Size (※3)	W338xD357xH642mm (P32 reference)

(※1) The model symbol is put in □. Refer to [The combination of Load Range according to the model]. (※2) Analog output and Printer output can be installed with option.

(※3) The listed "Height" is measured with the UP/DOWN axis at the lower limit.

### COMBINATION OF LOAD RANGE ACCORDING TO THE MODEL

Model	Usable Range	Setting Load Range						
		2kN	1kN	500N	200N	100N	50N	20N
SVZ-200NB-200R1	400N ~ 2kN	●	-	-	-	-	-	-
SVZ-200NB-200R2	100N ~ 2kN	●	-	●	-	-	-	-
SVZ-200NB-200R3	20N ~ 2kN	●	-	●	-	●	-	-
SVZ-200NB-100R1	200N ~ 1kN	-	●	-	-	-	-	-
SVZ-200NB-100R2	40N ~ 1kN	-	●	-	●	-	-	-
SVZ-200NB-100R3	10N ~ 1kN	-	●	-	●	-	●	-
SVZ-200NB-50R1	100N ~ 500N	-	-	●	-	-	-	-
SVZ-200NB-50R2	20N ~ 500N	-	-	●	-	●	-	-
SVZ-200NB-50R3	4N ~ 500N	-	-	●	-	●	-	●

# Universal Tensile Testing Machine



## Universal Testing Machine

SDT - 203NB



SDT-203NB Type is the tension and compression testing machine, which enables various kinds of testing up to 2 kN maximum load. The electric drive is constructed with the ball screw with a linear guide. This type is suitable for testing which requires a comparatively long stroke.

### CHARACTERISTICS

- It is adequate for relatively long-stroke measurements.
- It can be easily handled by exclusive software (Option).

### USAGE EXAMPLE

- Pulling tests of well-stretchy samples such as rubber.
- Examinations with large strokes such as peeling tests

### OPTIONS

- The stroke of 400mm / 800mm can be made as option, too.
- Output of ANALOG/PRINTER

This option becomes necessary for the connection to Analog recorder or printer.  
(Stroke 400mm Type)

### SPECIFICATIONS OF LOAD RANGE

Load Range	Maximum Load Display	Minimum Unit
2kN	2000N	1N
1kN	1000.0N	0.1N
500N	500.0N	
200N	200.0N	
100N	100.00N	0.01N
50N	50.00N	
20N	20.00N	

\* The usable range is recommended at 20~100% of each setting Load Range.

\* It is possible as an option to add other Load Range, Load cell can be changed to other than the above.

### STANDARD SPECIFICATIONS

Model	SDT-203NB-□ (*1)		
Maximum Load	2kN	Convenient Function	Memory function of the examination conditions Peak/Bottom Hold function Cycle mode function Detect function of Break Point Detect function of Start Point Auto Cancel/Auto Feed function Auto Start Point Return function Judgment function
Load Display	[The combination of Load Range according to the model]		
Minimum Unit	[The specifications of Load Range] Reference		
Load Precision	JIS 1 class (Indication value $\pm 1\%$ range)		
Displacement Minimum Unit	0.01~600.0mm		
Drive type	Brush less DC Motor		
Speed Range	5~500mm/min		
Stroke	600mm (※Condition without the Attachments)		
Distance of Sample to Column	80mm		
Table Size	100×150mm (With T-groove)		
Safety Device	Optional setting Upper and Lower Limit Over-load Prevention function	Output (*2)	USB
		Power supply	AC100V 5A
		Weight	Approx 47kg
		Size	W338×D357×H1097mm

(\*1) The model symbol is put in □. Refer to [The combination of Load Range according to the model].

(\*2) Analog output and Printer output can be installed with option.

### COMBINATION OF LOAD RANGE ACCORDING TO THE MODEL

Model	Usable Range	Setting Load Range						
		2kN	1kN	500N	200N	100N	50N	20N
SDT-203NB-200R1	400N ~ 2kN	●	-	-	-	-	-	-
SDT-203NB-200R2	100N ~ 2kN	●	-	●	-	-	-	-
SDT-203NB-200R3	20N ~ 2kN	●	-	●	-	●	-	-
SDT-203NB-100R1	200N ~ 1kN	-	●	-	-	-	-	-
SDT-203NB-100R2	40N ~ 1kN	-	●	-	●	-	-	-
SDT-203NB-100R3	10N ~ 1kN	-	●	-	●	-	●	-
SDT-203NB-50R1	100N ~ 500N	●	-	●	-	-	-	-
SDT-203NB-50R2	20N ~ 500N	●	-	●	-	●	-	-
SDT-203NB-50R3	4N ~ 500N	●	-	●	-	●	-	●

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness  
Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness  
Gage  
Etc.

# Universal Tensile Testing Machine



## Universal Testing Machine

SDT - 503NB



SDT-503NB type is tension and compression testing machine with the electric drive. Various examinations to maximum load 5kN are possible. It has the maximum load capacity as a desk model with single column.

### CHARACTERISTICS

- It is tension and compression testing equipment with the maximum load capacity as the desk model with single column.
- This is suitable for the long stroke examinations.
- It can be easily handled by exclusive software. (Option)

### USAGE EXAMPLE

- Various material examinations of the middle load.
- The evaluation examinations of the small machine parts.

### OPTIONS

- The customized stroke can be produced upon request.
- Output of ANALOG/PRINTER  
This option is necessary for the connection to Analog recorder or printer.

### STANDARD SPECIFICATIONS

Model	SDT-503NB-□ (※1)		
Maximum Load	5kN	Convenient Function	Memory function of the examination conditions
Load Display	[The specifications of Load Range] Reference		Peak/Bottom Hold function
Minimum Unit	[The combination of Load Range according to the model]		Cycle mode function
Load Precision	JIS 1 class (Indication value $\pm 1\%$ range)		Detect function of Break Point
Displacement Minimum Unit	0.01mm		Detect function of Start Point
Drive type	AC Servo Motor		Auto Cancel/Auto Feed function
Speed Range	0.1~500mm/min		Auto Start Point Return function
Distance from a Table to a Load-cell	Max. 680mm (An effective stroke is decided by selection of an attachment)	Output (※2)	Judgment function
Distance of Sample to Column	95mm		USB
Table Size	100×150mm (With T-groove)	Power supply	AC100V 7A
Safety Device	Optional setting Upper and Lower Limit	Weight	Approx 81kg
	Over-load Prevention function	Size (※3)	W527×D460×H1152mm (P32 reference)

(※1) The model symbol is put in □. Refer to [The combination of Load Range according to the model]. (※2) Analog output and Printer output can be installed with option.

### SPECIFICATIONS OF LOAD RANGE

Load Range	Maximum Load Display	Minimum Unit
5kN	5000N	1N
1kN	1000.0N	0.1N
200N	200.0N	

※ The usable range is recommended at 20~100% of each setting Load Range.

※ It is possible as an option to add Load Range other than the above listed.

### COMBINATION OF LOAD RANGE ACCORDING TO THE MODEL

Model	Usable Range	Setting Load Range		
		5kN	1kN	200N
SDT-503NB-R1	400N ~ 5kN	●	-	-
SDT-503NB-R2	200N ~ 5kN	●	●	-
SDT-503NB-R3	40N ~ 5kN	●	●	●



# Universal Tensile Testing Machine



## Universal Testing Machine SDW



SDW-5003



SDW-9103



With Protection Cover

SDW type is a testing machine for a load capacity from 10kN up to 200kN. The machine is placed on the floor. The load is given onto test pieces by the crosshead which moves up and down by the forwarding screws on both sides of the frame. For the 200kN type, please inquire us of the specification.

※ Please refer for the type of 200kN specifications.

### CHARACTERISTICS

- Universal type testing machine from 10kN to 200kN.
- It can be also used for an examination of the small load by adding a smaller load-range.
- The examinations of the comparatively large sample is possible due to gate type frame structure.
- It can be easily handled by exclusive software. (Option)

### USAGE EXAMPLE

- Various examinations of large load.
- Various evaluation examinations of machine parts and comparatively bigger sample.

### OPTIONS / SPECIAL SPECIFICATIONS

- A wide type of the valid examination width.
- The type that is long (short) of the stroke.
- The type that an environmental examination (Homoiothermal box) was added to
- The addition of the load range.
- A type of displacement resolving power 1m.
- Output of ANALOG/PRINTER

This option is necessary for the connection to Analog recorder or printer.

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine

Counting  
Scale  
Thermometer  
pH Meter

Ultrasonic  
Corrosion  
Thickness Gage

Ultrasonic  
Thickness  
Gage

Hall Effect  
Thickness  
Gage

Coating  
Thickness

Etc.

# Universal Tensile Testing Machine

## STANDARD SPECIFICATIONS

Model	SDW-1003-□	SDW-2003-□	SDW-5003-□	SDW-9103-□
Maximum Load	10kN	20kN	50kN	100kN
Load Display	[The specifications of Load Range] Reference			
Minimum Unit	[The combination of Load Range according to the model]			
Load Precision	JIS 1 class (Indication value ±1% range)			
Displacement Minimum Unit	0.01mm			
Drive type	AC Servo Motor			
Speed Range	0.1~500mm/min			
Distance from a Table to a Load-cell	Max. 1100mm (An effective stroke is decided by selection of an attachment)		Max. 1080mm (An effective stroke is decided by selection of an attachment)	
Distance of Sample to Column	445mm		439mm	
Table Size	300×300mm (With T-groove)		350×350mm (With T-groove)	
Safety Device	Optional setting Upper and Lower Limit Over-load Prevention function			
Convenient Function	Memory function of the examination conditions			
	Peak/Bottom Hold function			
	Cycle mode function			
	Detect function of Break Point			
	Detect function of Start Point			
	Auto Cancel/Auto Feed function			
	Auto Start Point Return function			
	Judgment function			
Output (※2)	USB			
Power supply	AC100V 10A	AC200V 15A 3phase	AC200V 30A 3phase	
Weight	Approx 320kg		Approx 460kg	Approx 486kg
Size (※3)	W985×D460×H1850mm (P33 reference)		W1038×D580×H1962mm (P33 reference)	

(※1) The model symbol is put in □. Refer to [The combination of Load Range according to the model]. (※2) Analog output and Printer output can be installed with option.

## SPECIFICATIONS OF LOAD RANGE

Load Range	Maximum Load Display	Minimum Unit
100kN	100.00kN	0.01N
50kN	50.00kN	
20kN	20.00kN	
10kN	10.000kN	0.001N
5kN	5000N	1N
2kN	2000N	
1kN	1000.0N	0.1N
500N	500.0N	

※ The usable range is recommended at 20~100% of each setting Load Range.

※ It is possible for the option to add other Load Range that Load-cell is changed to other than the above.

## COMBINATION OF LOAD RANGE ACCORDING TO THE MODEL

Model	Usable Range	Setting Load Range							
		100kN	50kN	20kN	10kN	5kN	2kN	1kN	500N
SDW-1003-R1	2kN ~ 10kN	-	-	-	●	-	-	-	-
SDW-1003-R2	400N ~ 10kN	-	-	-	●	-	●	-	-
SDW-1003-R3	100N ~ 10kN	-	-	-	●	-	●	-	●
SDW-2003-R1	4kN ~ 20kN	-	-	●	-	-	-	-	-
SDW-2003-R2	1kN ~ 20kN	-	-	●	-	●	-	-	-
SDW-2003-R3	200N ~ 20kN	-	-	●	-	●	-	●	-
SDW-5003-R1	10kN ~ 50kN	-	●	-	-	-	-	-	-
SDW-5003-R2	2kN ~ 50kN	-	●	-	●	-	-	-	-
SDW-5003-R3	400N ~ 50kN	-	●	-	●	-	●	-	-
SDW-9103-R1	20kN ~ 100kN	●	-	-	-	-	-	-	-
SDW-9103-R2	4kN ~ 100kN	●	-	●	-	-	-	-	-
SDW-9103-R3	1kN ~ 100kN	●	-	●	-	●	-	-	-



Wide type



Constant-Temperature Chamber  
furnished



Longer Stroke type



200kN Range type

# Universal Tensile Testing Machine



## Universal Testing Machine

SDWS



SDWS type is a gate-frame type pulling and compression testing machine. The load is given onto test pieces by the crosshead which moves up and down by the forwarding screws on both sides of the frame. This type is to be used on a working table.

### CHARACTERISTICS

- Testings of relatively large samples are possible with this gate type frame structure.
- It can be easily handled by exclusive software.(Option)

### USAGE EXAMPLE

- Various load tests in medium to big capacity.
- Various evaluation examinations of machine parts and comparatively bigger samples.

### SPECIFICATIONS OF LOAD RANGE

Load Range	Maximum Load Display	Minimum Unit
20kN	20.00kN	0.01kN
10kN	10.000kN	0.001kN
5kN	5000N	1N
2kN	2000N	
1kN	1000.0N	0.1N
500N	500.0N	
100N	100.00N	0.01N

\* The usable range is recommended at 20~100% of each setting Load Range.

\* It is possible as option to add other Load Range, Load cell can be changed to other than the above.

### STANDARD SPECIFICATIONS

Model (*1)	SDWS-0213-□	SDWS-0513-□	SDWS-1013-□	SDWS-2013-□
Maximum Load	2kN	5kN	10kN	20kN
Load Display	[The combination of Load Range according to the model]			
Minimum Unit	[The specifications of Load Range] Reference			
Load Precision	JIS 1 class (Indication value $\pm 1\%$ range)			
Displacement Display	0.01~750.0mm			
Drive type	AC Servo Motor			
Speed Range	0.1~500mm/min			0.05~100mm/min
Stroke	750mm (※Condition without the Attachments)			
Effective Test Width	376mm			
Table Size	300×300mm (With T-groove)			
Safety Device	Optional setting Upper and Lower Limit, Over-load Prevention function			
Convenient Function	Memory function of the examination conditions Peak/Bottom Hold function Cycle mode function Detect function of Break Point Detect function of Start Point Auto Cancel/Auto Feed function Auto Start Point Return function Judgment function			
Output (*2)	USB			
Power supply	AC100V 10A			
Weight	Approx 130kg			Approx 180kg
Size	W777×D390×H1348mm			W835×D420×H1474mm

(\*1) The model symbol is put in □. Refer to [The combination of Load Range according to the model].

(\*2) Analog output and Printer output can be installed with option.

### COMBINATION OF LOAD RANGE ACCORDING TO THE MODEL

Model	Usable Range	Setting Load Range						
		20kN	10kN	5kN	2kN	1kN	500N	100N
SDWS-0213-R1	400N ~ 2kN	-	-	-	●	-	-	-
SDWS-0213-R2	100N ~ 2kN	-	-	-	●	-	●	-
SDWS-0213-R3	20N ~ 2kN	-	-	-	●	●	-	●
SDWS-0513-R1	1kN ~ 5kN	-	-	●	-	-	-	-
SDWS-0513-R2	400N ~ 5kN	-	-	●	-	●	-	-
SDWS-0513-R3	100N ~ 5kN	-	-	●	-	●	●	-
SDWS-1013-R1	2kN ~ 10kN	-	●	-	-	-	-	-
SDWS-1013-R2	500N ~ 10kN	-	●	-	●	-	-	-
SDWS-1013-R3	100N ~ 10kN	-	●	-	●	-	●	-
SDWS-2013-R1	4kN ~ 20kN	●	-	-	-	-	-	-
SDWS-2013-R2	1kN ~ 20kN	●	-	●	-	-	-	-
SDWS-2013-R3	200N ~ 20kN	●	-	●	-	●	-	-

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine

Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness  
Gage

Hall Effect  
Thickness  
Coating  
Thickness  
Gage

Etc.



Testing equipment is possible to be connected to a PC. This software has various useful utility such as analyzing, saving and managing of each data as well as parameter-setting for controlled operations.

## DATA PROCESSING SOFTWARE / ISP-V

Software ISP-V receives the value of load and displacement from the testing machine, and draw load-displacement curves (Stress-Strain Curves) and load-time curves. It also processes these values and prints / saves the results.

### CHARACTERISTICS

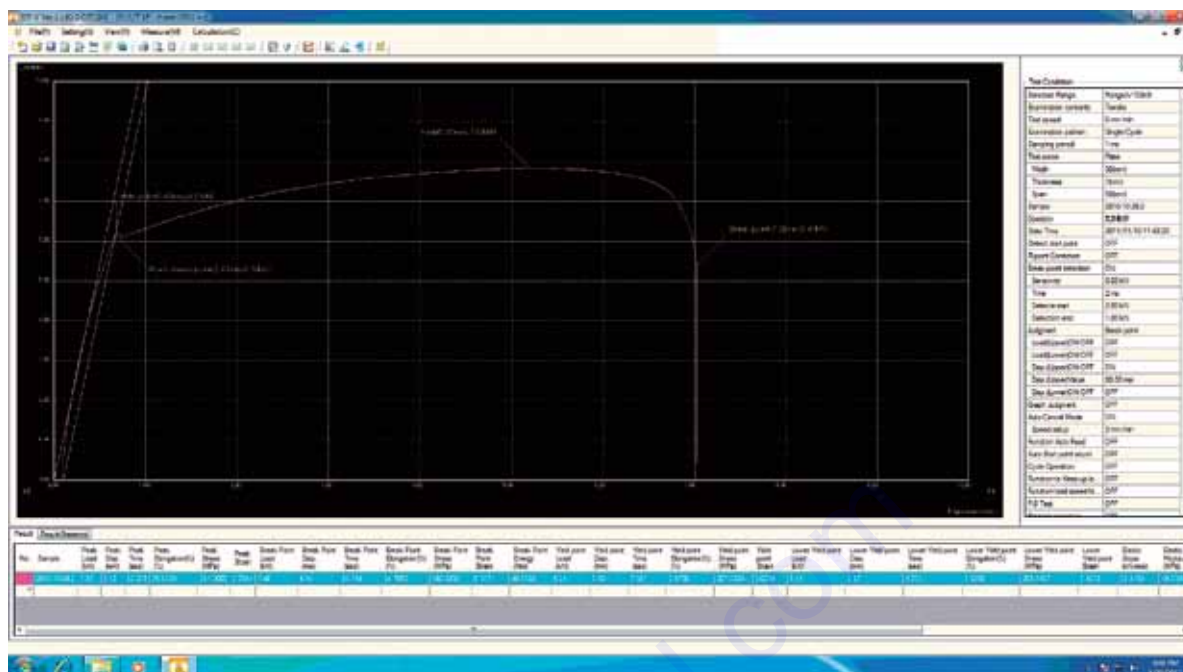
1. Capable of processing data of "Tensile", "Compression", "Bending", and "Peeling" test.
2. During the measurement, you can see the real-time drawing of the curves.
3. Various conditions for tests can be set from the PC side, and the measurement start and end can be executed from it as well.  
Because the condition setting is synchronized both on the testing equipment and the PC, changes and/or updates of the condition can be done on either device.
4. Data management can be carried out in several ways, such as saving overlapped graphs from the same work in one file or in separate files.
5. By registering initially, the measurement data is to be automatically processed.
6. An operation processing result, and the graph data file can be automatically saved.
7. Each result and data can be saved as text file and graphs can be converted to BMP from. So by using commercial software, the results can be output in a preferable layout or style.
8. The calculation result or the statistic data can be checked any time, since those are displayed at the bottom of graph screen.

### MAIN FUNCTION

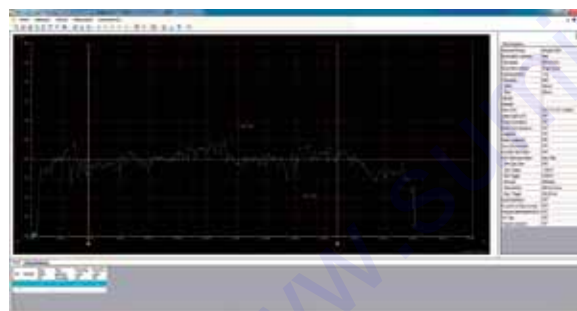
1. Graph	(日) The color for background and data lines, etc. can be set arbitrary.
	(月) Enlargement of the graph can be done by clicking directly with mouse.
	(火) Function to let the screen-scale automatically widen or scroll.
	(水) Function to overlap plural data. (※1)
	(木) By layout setting, a good look even on the wide screen is possible.
2. File	(日) The parameters of conditions and various processing can be saved / read with a specific file.
	(月) Measured data can be saved automatically into a specified folder.
	(火) Measured value (load / displacement / time) are able to be saved automatically into a specific folder.
	(水) The value of calculation results can be saved automatically into a specific folder.
3. Setting / Measurement	(日) Function to synchronize various conditions of the test and its control with testing equipment.
	(月) By varying the number of sampling, data measurement process for a long period is possible.
	(火) Function to slip over unnecessary data using the cycle control, which repeats data by data.
4. Calculation / Result	(日) Value of the load / displacement / time (Peak, Bottom, Break, and Yield point).
	(月) Computing process of stress-strain, elongation rate and energy at status mentioned above (4-1). (※2)
	(火) Computing process of the elastic slope, modules of elasticity and proof stress.
	(水) Result of peeling examination; peeling load, strength, peak/bottom as well as average of max. and min. point.
	(木) Extraction of data for load, displacement or time at an arbitrary point.
	(金) Processing the statistic average, the standard aviation as well as the maximum and minimum value from each result.
	(土) Graph judgment function to analyze the actual data graph in a specified range.
	(祭) Function to detect the multiple peak values in the one examination. (consecutive measurement function)
	(祝) Average graph out of several graphs from measurement can be made. (S-S average graph)
	(自) Comparison process among several data by a particular point. (measurement cursor function)

(※1) There is no limit for the numbers of files to be take in, but depending on the size of the data it cannot be displayed.

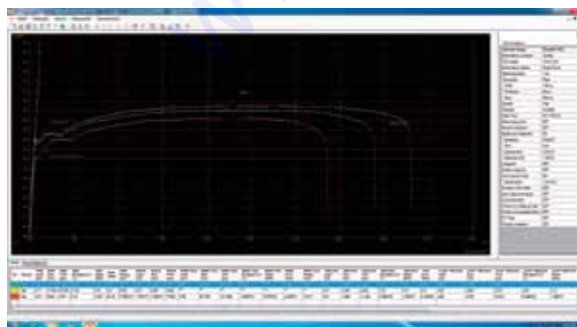
(※2) The calculation of the energy is not for the yield point.



### S-S Graph

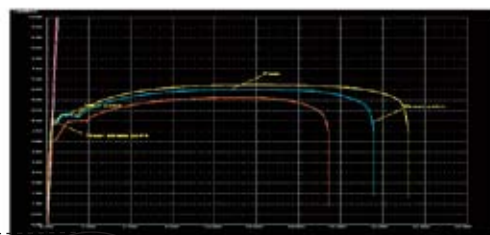


### Peel test



### Overlap data graph

Results	
No.	Sample
1	Test
2	Test
3	Test
Mean	
Standard deviation	
Maximum Value	
Minimum Value	
No.	Peak Stress (GPa)

[illegible][illegible]

[Print image](#)



## ATTACHMENTS (JIGS)

Selection of an attachment is very important, and it will bring out the full-capability of the testing machine.

Almost every IMADA testing machine can measure both "tensile" and "compression".

The test of "Tension", "Compression", "Bending", "Peeling" and so on is possible by selecting the correct attachment for the testing purpose.

We have many special attachments besides the items listed in this catalogue.

We design the attachment which meets your requirement. Please feel free to contact us and let us know your requirement.

### CAUTION WHEN CHOOSING THE RIGHT ATTACHMENT

- Testing load has to be lower than the maximum load of the attachment.
- The weight of the upper attachment has to be lower than the 10% of the maximum load of the load cell.  
If the maximum load of the load-cell is very small, it is recommended to adjust the testing machine with the attachment being placed.
- Make sure the size of the connecting rod is correct. Chart below show the size of the screw for upper/lower attachment.
- If you plan to test special materials, it is highly recommended to perform the sample testing to choose the right attachment.

## Wedge Grip

- Wedge grip has a self-clamping effect to hold the samples tightly, and it is very easy to clamp or release the samples.
- Hardened parts may cause slip since the initial grip force might be not enough. This needs to be checked before testing the samples.
- Surface of the gripped area is flat. As an option, "V" shaped surface for the round rod can be manufactured.
- GC-57A/GC-58A are fixed position type wedge grip.



GC-50



GC-51



GC-55



GC-57

### SPECIFICATIONS

Type	Maximum Load	Face Width	Open Width	Upper Weight
GC-50	500N	8mm	4mm	200g
GC-51	2kN	30mm	7mm	1.9kg
GC-55	5kN		5mm	2.8kg
GC-57	10kN	38mm	8mm	6.5kg
GC-58	20kN			45mm
GC-59	50kN	40mm		
GC-59S	100kN		9mm	7kg
GC-57A	10kN			
GC-58A	20kN			

Tool  
PresetterStereo  
MicroscopesPush-Pull  
GaugeUniversal  
Tensile Testing  
MachineCounting  
Scale

Thermometer

pH Meter

Ultrasonic  
Corrosion  
Thickness GaugeUltrasonic  
Thickness  
GaugeHall Effect  
Thickness  
GaugeCoating  
Thickness

Etc.

## Flat Chuck



GC-10-1

- Flat chuck is all-purpose chucks which can grip thin samples to thick samples.
- It clips the samples by fastening the plate from both sides.

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GC-10-1	500N	20mm	0~10mm
GC-10-2			0~20mm
GC-10-3			10~30mm
GC-12	2kN	30mm	0~18mm
GC-15	5kN	48mm	0~20mm
GC-17	10kN		

## WIRE WINDING GRIP



GC-47

- This is suitable for tensile testing of strings, thin line, or ropes.
- It hold the samples by the frictional force to the drum, avoiding the samples to be cut at the edge of the attachment.

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GC-41	50N	ø0.5mm	ø16mm
GC-42A	500N	ø2mm	ø30mm
GC-42B	2kN		
GC-45	5kN	ø8mm	ø40mm
GC-47	10kN		

## Roller Grip



GC-62

- This attachment is suitable for testing materials which are deformable and elastic such as rubber and films.
- The more tensile force is applied, the more self-clamping force is obtained.

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GC-60	500N	30mm	180g
GC-62	2kN	40mm	500g

## Film Chuck



GC-2-2A

- This is designed for the tension test of the thin film (max. thickness of 2mm)
- Suitable for the 180°peeling test of the glued sheet.
- GC-2-2A/GC-2-5A are made of aluminum, and there are no filing around the gripping area.
- "GT-71" is recommended as a lower attachment if you need to set the samples without any sagging.

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GC-2-2A	50N	20mm	38g
GC-2-5A		50mm	65g
GC-2-2	500N	20mm	75g
GC-2-3		30mm	100g
GC-2-5		50mm	155g

## Pantograph Chuck



GC-90A

GC-90G

- As for the Pantograph Chuck, clamping is one-touch-type, no tightening is necessary.
- GC-90AT/GC-90GT can be used as a replacement of the air grip and as one unit for upper and lower sides.

### SPECIFICATIONS

Type	Maximum Load	Face Width	Open Wide	Upper Weight
GC-90H	50N	4mm	2mm	30g
GC-90A	500N	20mm	4mm	200g
GC-90G	1kN		4mm	920g

## Drill Chuck



GC-20TR1

GC-20TR4

- This chuck is used to hold the round bar shaped samples, or attachment with round bar.

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GC-20TR1	1kN	ø0.5~3mm	100g
GC-20TR4A	5kN	ø2~9mm	4kg
GC-20TR4B	10kN		

## Bend Test Attachment

- This jig is for 3-point bending test attachment. The 4-point bending attachment can be produced upon requirement
- GA-10B is usually used for the three-point bending test for ceramic material.



### SPECIFICATIONS

Type	Maximum Load	R	Width	Upper Weight
GA-10A	500N	2mm	55mm	150g
GA-10B		0.5mm	15mm	200g
GA-12	10kN	5mm	50mm	920g
GA-18	20kN			200g
GA-19	50kN			200g
GA-19S	100kN			920g

## Flat Type Compression Attachment

- This attachment is designed for compression test use.
- Attachment of GA-20A is a self-centering type.
- Upper flat head, GA-22/28/29 is a self-centering type, and the extent of alignment can be adjusted.



GA-20

GA-20A

GA-22

GA-28

GA-29S

### SPECIFICATIONS

Type	Maximum Load	Diameter	Upper Weight
GA-20	500N	ø55mm	155g
GA-20A			185g
GA-22	10kN	ø100mm	1.3kg
GA-28	20kN		1.8kg
GA-29	50kN		2kg
GA-29S	100kN		2.2kg

## ACCESSORIES OPTION

Many accessories are available to ensure the expansion of the function of our Testing Machine.

Accessories are connected with the output of our testing machine.

Please notice that some of our tester does not equip an output for certain accessories, or equip an output as an option.

### Digital Printer DP-1VR

The value of "load" can be printed.

\*As for the NB specifications, the output is optional.



#### SPECIFICATIONS

Model	DP-1VR
Printing Style	Thermalline dot
Communication	Degimatic output terminal
Paper	No.09EAA082 (exclusive use)
Power Supply	AC100V
Weight	Approx 390g
Size	W94 x D201 x H75mm
Accessories	DC adapter/Paper 1 role/Cable C-

### Digital Printer BS2-80TS

The value of "load and displacement" can be printed.

\*As for the NB specifications, the output is optional.



#### SPECIFICATIONS

Model	BS2-80TS
Printing Style	Thermalline dot
Communication	RS-232C (Exclusive terminal)
Paper	BS-80-15 (80x38) (exclusive use)
Power Supply	AC100V
Weight	Approx 410g
Size	W134 x D180 x H60mm
Accessories	DC adapter/Paper 1 role/Cable C-101

### Transformer



When a power supply of the testing machine uses the type of AC100V specifications abroad, it is necessary to do transformation of the local voltage to 100V.

#### SPECIFICATIONS

Model	Input	Output	Maximum Current	Suitable Appliances
SU-300	110~120V	100V	3A	SV-55C/SV-5A
SE-300	220~240V		6A	Under 2kN
600AU	110~120V		10A	5kN~10kN
600AE	220~240V			
1000AU	110~120V			
1000AE	220~240V			



## Weight (Stainless)



### SPECIFICATIONS

Model	Class	Capacity	Number
STAINLESS-SET-100G-F1	F1	50mg - 50g	13
STAINLESS-SET-200G-F1	F1	50mg - 100g	14
STAINLESS-SET-600G-F1	F1	50mg - 200g	16
STAINLESS-SET-1KG-F1	F1	50mg - 500g	17
STAINLESS-SET-2KG-F1	F1	50mg - 1kg	18
STAINLESS-SET-5KG-F1	F1	50mg - 2kg	20
STAINLESS-SET-6KG-F1	F1	50mg - 2kg	20
STAINLESS-SET-10KG-F1	F1	50mg - 5kg	21



## Weight



### SPECIFICATIONS

Model	Class	Capacity
STAINLESS-SINGLE-F1	F1	1mg, 2mg, 5mg, 10mg, 20mg, 50mg, 100mg, 200mg, 500mg
		1g, 2g, 5g, 10g, 20g, 50g, 100g, 200g, 500g
STAINLESS-SINGLE-F2	F2	1kg, 2kg, 5kg, 10kg, 20kg
STAINLESS-SINGLE-F2	F2	50kg, 100kg
ALUMINUM-SINGLE-F2	F2	1mg, 2mg, 5mg, 10mg, 20mg, 50mg, 100mg, 200mg, 500mg
		1g, 2g, 5g, 10g, 20g, 50g, 100g, 200g, 500g
BRASS-SINGLE-F2	F2	1kg, 2kg, 5kg, 10kg, 20kg
		50kg, 100kg

1mg - 500mg (Plastic Box) , 1g - 100kg (Velvet Box)



## Weight (Brass)



### SPECIFICATIONS

Model	Class	Capacity	Number
BRASS-SET-100G-F2	F2	50mg - 50g	13
BRASS-SET-200G-F2	F2	50mg - 100g	14
BRASS-SET-600G-F2	F2	50mg - 200g	16
BRASS-SET-1KG-F2	F2	50mg - 500g	17
BRASS-SET-2KG-F2	F2	50mg - 1kg	18
BRASS-SET-5KG-F2	F2	50mg - 2kg	20
BRASS-SET-6KG-F2	F2	50mg - 2kg	20
BRASS-SET-10KG-F2	F2	50mg - 5kg	21



## Weight (Cast Iron)



### SPECIFICATIONS

Model	Class	Capacity
CAST-IRON-M1	M1	1kg 2kg 5kg
		10kg 20kg 50kg
		100kg 200kg 500kg
CAST-IRON-M2	M2	1kg 2kg 5kg
		10kg 20kg 50kg
		100kg 200kg 500kg

## SHINKO Tuning-Fork Analytical Balance HT/HT-R



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
HT-R220	220g	0.0001g	80mm dia.

## SHINKO Precision Tuning-Fork Balance HJ Series



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
HJ-1200CE	1200g	0.01g	200 x 200mm
HJ-2200CE	2200g		
HJ-3200CE	3200g		
HJ-4200CE	4200g		
HJ-6200CE	6200g		
HJ-8200CE	8200g	0.1g	
HJ-12KCE	12kg		
HJ-15KCE	15kg		
HJ-17KCE	17kg		
HJ-33KCE	33kg		



# Counting Scale

## SHINKO Precision Tuning-Fork Balance AJ-Series



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
AJ-220CE	220g	0.001g	118mm dia.
AJ-420CE	420g		
AJ-620CE	620g		
AJ-820CE	820g		
AJ-1200CE	1200g	0.01g	170 x 142mm
AJ-2200CE	2200g		
AJ-4200CE	4200g		
AJ-6200CE	6200g		
AJ-8200CE	8200g	0.1g	180 x 160mm
AJ-12KCE	12000g		

## SHINKO Electronic Density Meter DME-220(H)



### SPECIFICATIONS

Model	DME-220	DME-220H
Capacity (Density)	220g	
Capacity (Weight)	600g	
Resolution	0.01g	
Resolution (Density)	0.01g	0.001g/0.01g
Resolution (Volume)	0.01cm <sup>3</sup>	0.001/0.01cm <sup>3</sup>

## SHINKO Precision Tuning-Fork Balance SJ Series



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
SJ-420CE	420g	0.01g	140mm dia.
SJ-620CE	620g		
SJ-4200CE	4200g	0.1g	180 x 160mm
SJ-6200CE	6200g		

## SHINKO Ex-Proof Tuning-Fork Scale GZ



### SPECIFICATIONS

Model	Plate Size	Capacity	Resolution
GZ	170mm dim.	2kg	0.01g
	25x20.2cm	6kg	0.1g
	25x20.2cm	12kg	0.2g
	36x32.6cm	30kg	1g
	36x32.6cm	60kg	10g
	39.5x61cm	60kg	20g
	39.5x61cm	100kg	50g
	39.5x61cm	200kg	100g

## SHINKO Precision Tuning-Fork Balance SJP Series



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
SJP-620CE	620g	0.01g	140mm dia.
SJP-1200CE	1200g	0.1g	170 x 142mm
SJP-2200CE	2200g		180 x 160mm
SJP-4200CE	4200g		
SJP-6200CE	6200g		
SJP-12KCE	12000g	1g	

## SHINKO Light & Compact Carat Balance CT Series



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
CT-600E	600ct/120g	0.001ct/0.001g	80mm dia.
CT-600DBE			
CT-600TDBE			
CT-1600E	1600ct/320g	0.01ct/0.001g	
CT-1600DBE			
CT-1600TDBE			

## SHINKO Tape Printer CSP-160



### SPECIFICATIONS

Model	CSP-160
-------	---------

## DIGI High Precision Weighting Scale DS-425/DS-425P



### SPECIFICATIONS

Model	DS-425	DS-425P
Capacity	300g, 600g, 1.5kg, 3kg, 6kg, 15kg	
Resolution	0.01g, 0.02g, 0.05g, 0.1g, 0.2g, 0.5g	

## DIGI Counting Scale DC-180



### SPECIFICATIONS

Model	DC-180					
Capacity	500g	1kg	2.5kg	5kg	10kg	25kg
Resolution	0.1g	0.2g	0.2g	0.5g	1g	2g

## DIGI Weighting Scale DS-673



### SPECIFICATIONS

Model	DS-673				
Capacity	1.5g	3kg	6kg	15kg	30kg
Resolution	0.5g	1g	2g	5g	10g

## DIGI Counting Scale DC-300



### SPECIFICATIONS

Model	DC-300					
Capacity	500g	1kg	2.5kg	5kg	10kg	25kg
Resolution	0.1g	0.2g	0.5g	1g	2g	5g

## DIGI Weighting Scale DS-708



### SPECIFICATIONS

Model	DS-708		
Capacity	6kg	15kg	30kg
Resolution	2g	5g	10g

## DIGI Counting Scale DC-788



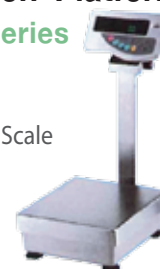
### SPECIFICATIONS

Model	DC-788						
Capacity	500g	1kg	2.5kg	5kg	10kg	25kg	50kg
Resolution	0.02g	0.05g	0.1g	0.2g	0.5g	1g	2g

## SHINKO Precision Platform Balance HJ-K Series

### FEATURES

High Resolution Water Proof Scale



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
HJ-17KE	17kg	0.1	400 x350mm
HJ-22KE	22kg		
HJ-33KE	33kg		
HJ-62KDE	62kg		

# Counting Scale



## Digital Weight Indicator

**DIGI** DI-81 / DI-81P



### SPECIFICATIONS

Model	Model	Plate Size	Capacity	Resolution
DI-81	DI-81P*	No Plate	All	
DI-81-SSK	DI-81P-SSK	31×42cm	30kg	2g
DI-81-SGA	DI-81P-SGA	36×48cm	60kg	5g
			150kg	10g
			60kg	5g
DI-81-STK	DI-81P-STK	41×52cm	150kg	10g
			300kg	20g
			300kg	20g
DI-81-SUK	DI-81P-SUK**	60×70cm	500kg	50g
DI-81-SYFB	DI-81P-SYFB**	70×80cm	300kg	20g
			500kg	50g

\* Suffix P, Printer is available

\*\* Plate size can made to order



## Digital Weight Indicator

**DIGI** DI-30SS



### SPECIFICATIONS

Model	Plate Size	Capacity	Resolution
DI-30SS	No Plate	All	
DI-30SS-SSK	31×42cm	30kg	2g
DI-30SS-SGA	36×48cm	60kg	5g
		150kg	10g
		60kg	5g
DI-30SS-STK	41×52cm	150kg	10g
		300kg	20g
		300kg	20g
DI-30SS-SUK*	60×70cm	500kg	50g
		300kg	20g
DI-30SS-SYFB*	70×80cm	500kg	50g
		300kg	20g

\* Plate size can made to order



## Digital Weight Indicator

**DIGI** DI-80SS



### SPECIFICATIONS

Model	Plate Size	Capacity	Resolution
DI-80SS	No Plate	All	
DI-80SS-SSK	31×42cm	30kg	2g
DI-80SS-SGA	36×48cm	60kg	5g
		150kg	10g
		60kg	5g
DI-80SS-STK	41×52cm	150kg	10g
		300kg	20g
		300kg	20g
DI-80SS-SUK*	60×70cm	500kg	50g
		500kg	50g
DI-80SS-SYFB*	70×80cm	300kg	20g
		500kg	50g

\* Plate size can made to order



## Platform Scale

**DIGI** DS-530



### SPECIFICATIONS

Model	Capacity	Resolution	Plate Size
DS-530	60kg	20g	36 × 48cm
	150kg	50g	
	300kg	100g	

\* Sale complete set only



## Digital Weight Indicator

**DIGI** DI-162



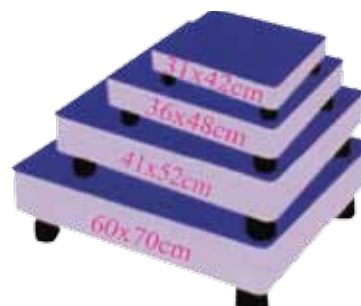
### SPECIFICATIONS

Model	Plate Size	Capacity	Resolution
DI-162	No Plate	All	
DI-162-SSK	31×42cm	30kg	2g
DI-162-SGA	36×48cm	60kg	5g
		150kg	10g
		60kg	5g
DI-162-STK	41×52cm	150kg	10g
		300kg	20g
		300kg	20g
DI-162-SUK*	60×70cm	500kg	50g
		500kg	50g
DI-162-SYFB*	70×80cm	300kg	20g
		500kg	50g

\* Plate size can made to order



## Platform



### SPECIFICATIONS

Model	Plate Size
PLATFORM-SSK	31×42cm
PLATFORM-SGA	36 × 48cm
PLATFORM-STK	41×52cm
PLATFORM-SUK	60×70cm



## Temperature Measuring Instrument (1-Channel)

testo 110 - Universally Applicable



### FEATURES

- testo 110, 1 channel temperature measuring instrument NTC, audible alarm, connection to an optional radio probe, with battery and calibration protocol

### SPECIFICATIONS

Model	TESTO 110
Sensor Type	NTC
Measuring Range	-50 to +150 °C
Accuracy ±1 Digit	±0.2°C (-20 to +80°C) ±0.3°C (remaining range)
Resolution	0.1°C
<b>General Technical Data</b>	
Storage Temperature	-40 to +70°C
Operation Temperature	-20 to +50°C
Battery Type	9V block battery, 6F22
Battery Life	200 h (connected probe, backlight off) 45 h (radio mode, backlight off) 68 h (connected probe, backlight always on) 33 h (radio mode, backlight always on)
Weight	171 g
Dimensions	182 x 64 x 40 mm
Material/Housing	ABS
Warranty	2 years



## Infrared Thermometer with 1-Point Laser Sighting

testo 830-T1



### FEATURES

- testo 830-T1, infrared thermometer, 1 point laser sighting, 10:1 optics, adjustable limit values, alarm function, include Batteries and factory calibration certificate

### SPECIFICATIONS

Model	TESTO 830-T1
Measuring Range	
Infrared	-30 to +400 °C
Accuracy ±1 Digit	
Infrared	±1.5 °C or 1.5 % of mv (+0.1 to +400 °C) ±2 °C or ±2 % of mv (-30 to 0 °C) the higher value applies
Resolution	0.1 °C
Measurement Rate	
Infrared	0.5 s
Measuring Spot Marking	1-point laser
Distance to Measurement Spot	10:1





## Data Logger Temperature and Humidity

testo 175 H1



### FEATURES

- testo 175 H1, 2-channel temperature and humidity data logger with external humidity sensor (NTC/capacitive humidity sensor), include wall holder, lock, batteries and calibration protocol

### SPECIFICATIONS

Model	TESTO 175 H1
<b>General Technical Data</b>	
Channels	2 x internal (stump)
Battery Type	3 x AlMn Type AAA or Energizer
Battery Life	3 years at 15 minimum measuring rate
Operation Temperature	-20 to +55 °C
Storage Temperature	-20 to +55 °C
Dimensions	149 x 53 x 27 mm
Protection Class	IP54
Measuring Rate	10 s - 24 h
Memory	1 mio. measurement values



## Data Logger Temperature

testo 175 T3



### FEATURES

- testo 175 T3, 2-channel temperature data logger with external sensor connections (TC Type T and Type K) include wall holder, lock, batteries and calibration protocol

### SPECIFICATIONS

Model	TESTO 175 T3
<b>General Technical Data</b>	
Channels	2 x external
Battery Type	3 x AlMn Typ AAA or Energizer
Battery Life	3 years at 15 minimum measuring rate
Operation Temperature	-20 to +55 °C
Storage Temperature	-20 to +55 °C
Dimensions	89 x 53 x 27 mm
Protection Class	IP65
Measuring Rate	10 s - 24 h
Memory	1 mio. measurement values





## Thermo Hygrometers for Uninterrupted Measurement

testo 608-H1 / testo 608-H2



### FEATURES

- Monitors ambient conditions and dew point in garden centres, storage and clean rooms, museums, laboratories. Stand-alone or attachable
- testo 608-H1 hygrometer, humidity/dew point/temperature measuring instrument with battery
- **With alarm** testo 608-H2 hygrometer, humidity/dew point/temperature measuring instrument, with LED alarm, battery and calibration protocol
- Testo 608-H2 hygrometer, adjustment option with our testo 650 or testo 400 reference measuring instruments

### SPECIFICATIONS

Model	TESTO 608-H1	TESTO 608-H2
Measuring Range	+10... +95 %RH	+2... +98 %RH
	0... +50 °C	-10... +70 °C
	-20... +50 °C td	-40... +70 °C td
Accuracy ± 1 Digit	±3 %RH (+10... +95 %RH)	±2 %RH (+2... +98 %RH)
Resolution	0.1 %RH (0... +100 %RH)	0.1 %RH (0... +100 %RH)
Probe Type	NTC	NTC
Accuracy ± 1 Digit	±0.5 °C (at +25°C)	±0.5 °C (at +25°C)
Resolution	0.1 °C (0... +50 °C)	0.1 °C (-10... +70 °C)
Operation Temperature	0... +50 °C	-10... +70 °C



## Rpm Measuring Instrument

testo 465 - Non - Contact Rpm Measurement



### FEATURES

- testo 465, rpm measuring instrument set: instrument in case (plastic), include reflectors and batteries

### SPECIFICATIONS

Model	TESTO 460
Sensor Type	Optically with model light beam
Measuring Range	+1 to +99999 rpm
Accuracy ±1 Digit	±0.02% of mv
Resolution	0.01 rpm (+1 to +99.99 rpm)
	0.1 rpm (+100 to +999.9 rpm)
	1 rpm (+1000 to +99999 rpm)
<b>General Technical Data</b>	
Operation Temperature	0 to +50 °C
Storage Temperature	-20 to +70 °C
Battery Type	2 AA batteries or recharge battery
Display	5-figure LCD display, 1-line
Weight	145 g
Warranty	2 years
Dimensions	144 x 58 x 20 mm
Battery Life	40 h



## Light Intensity Measuring Instrument

testo 540 - Pocket - Sized Lux Meter



### FEATURES

- testo 540; light intensity measuring instrument include protective cap, batteries and calibration protocol

### SPECIFICATIONS

<b>Model</b>	<b>TESTO 540</b>
<b>Sensor Type</b>	Silicone photodiode
<b>Measuring Range</b>	0 to 99,999 Lux
<b>Accuracy <math>\pm 1</math> Digit</b>	$\pm 3$ % (compared to reference Class B, DIN 5032 Part 7)
<b>Resolution</b>	1 Lux (0 to 19.999 Lux) 10 Lux (remaining range)
<b>General Technical Data</b>	
<b>Measurement Rate</b>	0.5 s
<b>Storage Temperature</b>	-40 to +70 °C
<b>Protection Class</b>	IP40
<b>Operation Temperature</b>	0 to +50 °C
<b>Battery Type</b>	2 batteries Type AAA
<b>Battery Life</b>	200 h (average, without display illumination)
<b>Dimensions</b>	133 x 46 x 25 mm
<b>Weight</b>	95 g (include batteries and protective cap)
<b>Warranty</b>	2 years



## Sound Level Measuring Instrument

testo 815



### FEATURES

- Sound level meter, include microphone, wind protection cap and battery

### SPECIFICATIONS

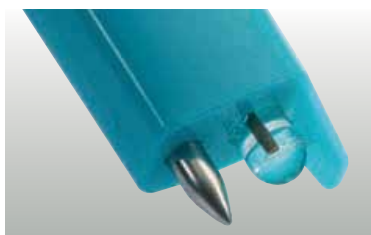
<b>Model</b>	<b>TESTO 815</b>
<b>Measuring Range</b>	+32 to +130 dB
<b>Frequency Range</b>	31.5 Hz to 8 kHz
<b>Accuracy <math>\pm 1</math> Digit</b>	$\pm 1.0$ dB
<b>Resolution</b>	0.1 dB
<b>Operation Temperature</b>	0 to +40 °C
<b>Storage Temperature</b>	-10 to +60 °C
<b>Battery Type</b>	9V block battery
<b>Battery Life</b>	70 h
<b>Weight</b>	195 g
<b>Dimensions</b>	255 x 55 x 43 mm
<b>Warranty</b>	2 years

Section Measuring range: 30 to 80 dB; 50 to 100 dB; 80 to 130 dB  
Time weighting: FAST 125 ms setting / SLOW 1 s setting  
Pressure dependency: -0.0016 dB/hPa



## Ph/Temperature Measuring Instrument

testo 206 pH1 / testo 206 pH2

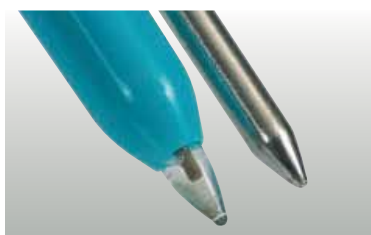


testo 206-pH1:  
pH1 probe head for liquids

### FEATURES

#### testo 206 pH1

- One-hand pH/°C measuring instrument, pH1 probe head for liquids, storage cap with gel, TopSafe and belt/wall holder



testo 206-pH2:  
pH2 probe head for semi-solid food

#### testo 206-pH2

- One-hand pH/°C measuring instrument, pH2 probe head for semi-solid substances, storage cap with gel, TopSafe and belt/wall holder

### SPECIFICATIONS

Model	TESTO 206 pH1	TESTO 206 pH2
Sensor Type	pH electrode	
Measuring Range	0 to 14 pH	
Accuracy ±1 Digit	±0.02 pH	
Resolution	0.01 pH	
Sensor Type	NTC	
Measuring Range	0 to 60 °C (Short-term to +80 °C maximum. 5min)	
Accuracy ±1 Digit	±0.4 °C	
Resolution	0.1 °C	
General Technical Data		
Operation Temperature	0 to +60 °C	
Storage Temperature	-20 to +70 °C	
No. Measuring Channels	2 channel	
Temperature Compensation	Automatic	
Measuring Rate	2 measurements per second	
Battery Type	1x CR2032	
Material/Housing	ABS with TopSafe, Protection type IP 68	
Battery Life	80 h (Auto Off 10 min)	
Dimensions	197 x 33 x 20 mm	
Weight	69 g	
Display	LCD, 2 lines	

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness  
Etc.



Automatic Alarm (red background)  
display impaired measured value



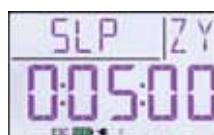
Dual display:  
1. Humidity: measured value (red)  
exceeds the limit  
2. Temperature



1. Measured value (blue)  
below the limit  
2. Limit



1. Measured value (green)  
in the normal range  
2. MAX peak (red)  
over below the limit



Programming  
1. Memory cycle  
2. Sleep mode

## FEATURES

- Universal measuring instrument for limit value monitoring, long-term data logger Illuminated segmented color display
- With 1 or 2 measuring inputs, suitable for all ALMEMO® sensors.
- new: Segmented color display with bright, white illumination, Clear and easy-to-understand display of measuring and programming values in 5 different colors. Alarm display against a red background
- Easy operation by means of 7 keys, with configurable key and function locking
- Measuring functions : Maximum and minimum values, measured value smoothing, zero-setting, sensor adjustment
- Programming functions : Limit values, sensor correction with base value and factor
- Data logger functions (2470-1S and -2S only) Memory cycle, real-time clock (buffered via device's power supply), sleep mode for long-term recording

## SPECIFICATIONS

Model	ALMEMO® 2470-1S	ALMEMO® 2470-2	ALMEMO® 2470-2S
<b>Application</b>	Long-term data logger with display	Monitoring, mobile / stationary display	Monitoring, mobile / stationary display/ data logger
<b>Measuring Inputs ALMEMO® Input Sockets, Electrical Isolation.</b>	1	2	2
<b>Data logger:</b> Internal - Measured Value Memory External - SD Memory Card	up to 100 000 values -	- -	up to 100 000 values up to 30 million values
<b>Long-Term Recording in Sleep Mode Power Supply with Operating Time at Memory Cycle 15 Minutes (E.g. with Humidity Sensor)</b>	AA batteries > 1.5 years	- -	rechargeable batteries > 1 year
<b>Individual Value Memory (Manual)</b>	-	99 values	-
<b>Outputs ALMEMO® Sockets for Relay, Analog, and Trigger Cables</b>	-	A1, A2	A1, A2
<b>Digital Interface Without Electrical Isolation - Via DC Socket</b>	USB (including USB power supply) with cable ZA 1919 DKU5 -	USB (including USB power supply) with cable ZA 1919 DKU5 USB, RS232, Ethernet, wireless	USB (including USB power supply) with cable ZA 1919 DKU5 USB, RS232, Ethernet, wireless
<b>With Electrical Isolation - Via Socket A1</b>			
<b>Power supply:</b> Internal External, Via ALMEMO® DC Socket	AA batteries Power supply unit	rechargeable batteries Power supply unit	rechargeable batteries Power supply unit
<b>Battery Charging Via the Device Itself</b>	-	yes	yes



## Temperature Humidity

FHAD 46X



FHAD 46-41



Digital atmospheric pressure sensor  
FDAD 12 SA, for barometric pressure  
with ALMEMO® D6 plug



Measuring ranges: Barometric pressure



FHAD462  
Sensor element enclosed in slotted sensor cover,  
compact design, short response time



FHAD462 Option with plug-in extension tube



FHAD462L00

### FEATURES

- Digital temperature / humidity sensor  
FHAD 46X Version in plastic, with slotted  
sensor cap, with ALMEMO® D6 plug

### SPECIFICATIONS

Model	FHAD 46-41	FHAD462	FHAD462L00
Common Techincal Data FHAD 46X			
Digital Temperature / Humidity Sensor	(including A/D converter)		
Operative Range	depending on sensor type		
Humidity			
Measuring Range	0 to 100 % RH		
Sensor	CMOSens® technology		
Accuracy	±1.8 % RH in the range 10 to 90 % RH at nominal temperature		
Hysteresis	typical ±1 % RH		
Nominal Temperature	+25 °C		
Sensor Operating Press.	Atmospheric pressure		
Response Time T63	typical 8 seconds at 25 °C and 1 m/s (without filter)		
Temperature			
Sensor	CMOSens® technology		
Accuracy	±0.3 K at +25 °C ±0.4 K at +10 to +40 °C ±1.3 K at -20 to +80 °C		
Reproducibility	typical ±0,1 K		
Response Time T63	typical 20 seconds (without filter)		
ALMEMO® Connecting Cable	PVC, For lengths, see variants with ALMEMO® D6 plug		
ALMEMO® D6 Plug			
Refresh Rate	2 seconds for all four channels		
Supply Voltage	6 to 13 VDC		
Current Consumption	12 mA		

General features and accessories, ALMEMO® D6

Sensors : see ALMEMO® D6 overview



# Ultrasonic Corrosion Thickness Gage



## Ultrasonic Corrosion Thickness Gage

26 MG Series



### FEATURES

- Lightweight – only 0.24 kg (8.5 oz)
- Easy to use – pocket-sized
- 250 hours of battery life on two AA alkaline batteries
- Wide thickness range: 0.5 mm to 508 mm (0.020 in. to 19.999 in.)
- Automatic probe recognition
- High temperature capabilities
- Large backlit display
- Fast Min Mode holds thinnest reading at Fast Scan Rate
- Freeze Mode instantly captures critical thickness
- Millimeters/inches selection

### SPECIFICATIONS

<b>Metric/English Mode:</b>	Metric or English units
<b>Battery:</b>	2 AA alkaline batteries
<b>Operating Time:</b>	250 hours typical battery life; 30 hours continuous with backlight on
<b>Low Battery Indicator:</b>	Continuously indicates battery status
<b>Battery Saver:</b>	Auto Power Off/Continuous On
<b>Case/Keypad:</b>	Splash proof, impact-resistant Lexan® case. Sealed, color-coded keypad with tactile and audible feedback.
<b>Operating Temperature Range:</b>	-10 °C to +50 °C (14 °F to 122 °F)
<b>Size (w x h x d):</b>	64.8 mm x 128.7 mm x 29 mm (2.55 in. x 5.05 in. x 1.14 in.)
<b>Weight:</b>	0.24 kg (8.5 oz)
<b>Standard Inclusions:</b>	Wrist strap, test bar, couplant, instruction manual, plastic carrying case. Please consult your local sales representative for a full list of standard inclusions.

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness  
Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness

Etc.



### FEATURES

The 45MG is an advanced ultrasonic thickness gage packed with standard measurement features and software options. This unique instrument is compatible with the complete range of Olympus dual element and single element thickness gage transducers, making this innovative instrument an all-in-one solution for virtually every thickness gage application.



### SPECIFICATIONS

Measurements	
Dual element transducer measurement mode	Time interval from a precision delay after the excitation pulse to the first echo
Thickness range	0.080 mm to 635 mm (0.003 in. to 25.0 in.) depending on material, transducer, surface conditions temperature, and selected configuration (Full range requires single element option)
Resolution (selectable)	Low: 0.1 mm (0.01 in.)
	Standard: 0.01 mm (0.001 in.)
	Single Element option: 0.001 mm (0.0001 in.)
General	
Operating temperature range	-10 °C to 50 °C
Keypad	Sealed, color-coded keypad with tactile and audible feedback
Case	Impact-resistant and water-resistant, gasketed case with sealed connectors. Designed for IP67.
Dimensions (W x H x D)	Overall: 91.1 mm x 162 mm x 41.1 mm (3.59 in. x 6.38 in. x 1.62 in.)
Weight	430.9 g
Power supply	3 AA batteries/USB power supply
Battery life operating time	3 AA alkaline: 20 to 21 hours
	3 AA NiMH: 22 to 23 hours
	3 AA Lithium-ion: 35 to 36 hours
Display	
Color transfective QVGA display	Liquid crystal display, display area 54.61 mm x 41.15 mm (2.15 in. x 1.62 in.)
Inputs /Outputs	
USB	2.0 client
Memory card	Maximum capacity: 2 GB removable MicroSD memory card
Internal Data Logger (Optional)	
Data logger	The 45MG identifies, stores, recalls, clears, and transmits thickness readings, waveform images, and gage configuration information through USB or MicroSD.
Capacity	475,000 thickness measurements or 20,000 waveforms with thickness measurements
Reports	On-gage reporting of summary with statistics, Min./Max.

# Hall Effect Thickness Gage



## Hall Effect Thickness Gage

Magna-Mike 8600 Series



### FEATURES

The Magna-Mike® 8600 is a portable thickness gage that uses a simple magnetic method to make reliable and repeatable measurements on nonferrous materials. Operation of the Magna-Mike is very simple. Measurements are made when its magnetic probe is held or scanned on one side of the test material and a small target ball (or Disk or Wire) is placed on the opposite side or dropped inside a container. The probe's Hall Effect sensor measures the distance between the probe tip and target ball. The measurements are instantly displayed as an easy-to-read digital thickness reading.

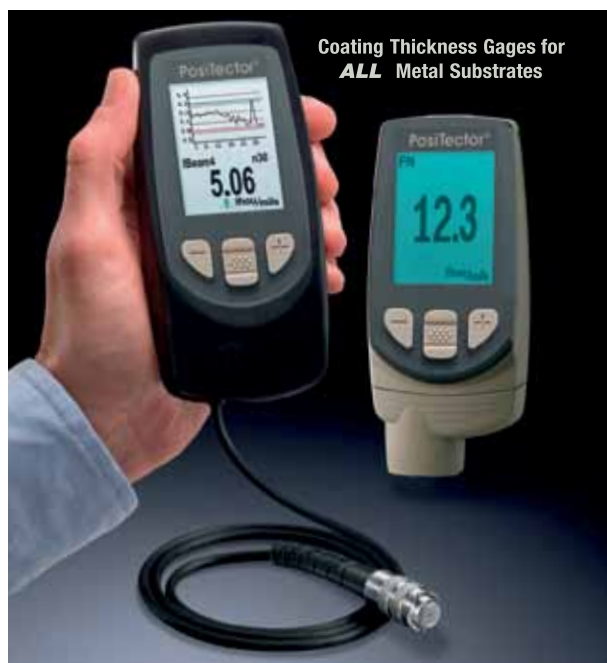


### SPECIFICATIONS

Measurement	
Measurement Range	0.001 mm to 25.4 mm (Range depends on type of target ball)
General	
Overall Dimension	236 mm x 167 mm x 70 mm
Weight	1.68 kg (including lithium-ion battery)
Keypad	English, Japanese, Chinese, International
Data Storage	Onboard and removable 2 GB MicroSD card
Battery Life (Optional)	12 h to 13 h (lithium-ion)
Power Requirements	AC Mains: 100 VAC to 120 VAC, 200 VAC to 240 VAC
Display Type	Full VGA (640 x 480 pixels) transfective color LCD
Display Dimensions (W x H, Diag.)	117 mm x 89 mm, 146 mm
Min/Max Capture Mode	Captured at 60 Hz measurement rate
Alarm	High and Low alarms
Data Logger	Internal file-based alphanumeric data logger

**DeFelsko®**

**PosiTector®**  
**6000 Series**



Coating Thickness Gages for  
**ALL Metal Substrates**

## FEATURES

### Simple

- Ready to measure—no calibration adjustment required for most applications
- Enhanced one-handed menu navigation
- Flashing display—ideal in a noisy environment
- RESET feature instantly restores factory settings

### Durable

- Solvent, acid, oil, water and dust resistant—weatherproof
- Wear-resistant probe tip
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on gage body AND probe

### Accurate

- Certificate of Calibration showing traceability to NIST included
- Built-in temperature compensation ensures measurement accuracy
- Hi-RES mode increases displayed resolution for use on applications that require greater precision
- Conforms to national and international standards including ISO and ASTM

### Versatile

- Fully interchangeable probes are compatible with ALL gage bodies
- Multiple Calibration adjustment options including 1 point, 2 point, known thickness, average zero
- Selectable display languages
- Hi Contrast backlit display for bright or dark environments
- Flip display enables right-side-up viewing
- Extended cables available (up to 75 m/250 ft) for remote measuring
- Uses alkaline or rechargeable batteries (built-in charger)

### Powerful

- Continually displays/updates average, standard deviation, min /max thickness and number of readings while measuring
- HiLo alarm audibly and visibly alerts when measurements exceed user-specified limits
- FAST mode—faster measurement speed for quick inspection
- USB port for fast, simple connection to a PC and to supply continuous power. USB cable included
- USB mass storage—stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers. No software required
- Every stored measurement is date and time stamped
- Software updates via web keep your gage current
- Connects to PosiTector.net (see far right panel)

## Probes available for a variety of applications



For measuring paint, powder, etc.  
on all metals...



...and for measuring galvanizing,  
plating, anodizing and more.



**Standard model** shown in Statistics Mode with  
shock-absorbing, protective rubber holster



**High-Range Probes** for thick coatings,  
e.g. fire proofing, tank linings, etc.



**Flip Display** enables right-side-up viewing












**Microprobe** series for small parts  
and hard-to-reach areas

Tool  
Presetter  
Stereo  
Microscopes  
Push-Pull  
Gauge  
Universal  
Tensile Testing  
Machine  
Counting  
Scale  
Thermometer  
pH Meter  
Ultrasonic  
Corrosion  
Thickness Gage  
Ultrasonic  
Thickness  
Gage  
Hall Effect  
Thickness  
Gage  
Coating  
Thickness  
Etc.



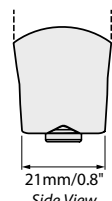
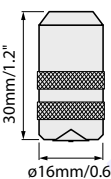
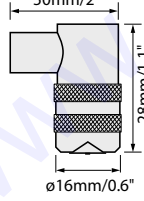
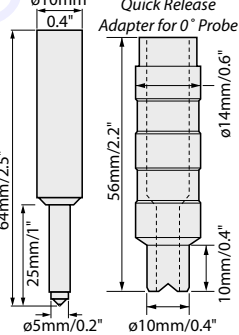
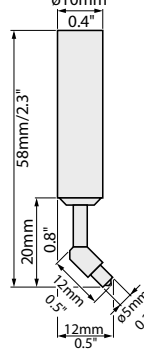
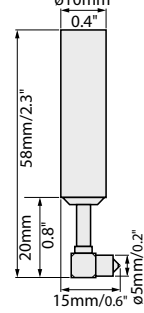
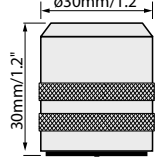
# Coating Thickness

## SPECIFICATIONS

Model		6000 SERIES								
<b>PosiTector® 6000 Series</b> <b>ORDERING GUIDE</b>		Our most popular Removable Built-in and Regular Separate probe models			90° Regular probe for tight spots	Ideal for anodized aluminum	Microprobes – Our smallest probes for small parts or hard-to-reach areas			Removable Built-in and Separate probes for thick protective coatings; epoxy, rubber, intumescent fire proofing and more
										
Non-Magnetic Coatings over FERROUS Metals (Steel and Iron)	Standard	F1	FS1	FRS1		FOS1	F45S1	F90S1	FT1	FTS1
	Advanced	F3	FS3	FRS3		FOS3	F45S3	F90S3	FT3	FTS3
Non-Conductive Coatings on NON-FERROUS Metals (Aluminum, Copper, etc.)	Standard	N1	NS1	NRS1	NAS1	NOS1	N45S1	N90S1		NKS1
	Advanced	N3	NS3	NRS3	NRS3	NOS3	N45S3	N90S3		NKS3
Combination ALL METALS	Standard	FN1	FNS1	FNRS1						FNTS1
	Advanced	FN3	FNS3	FNRS3						FNTS3
Range		0 – 60 mils 0 – 1500 µm			Ferrous: 0 – 45 mils and 0 – 1150 µm Non-Ferrous: 0 – 25 mils and 0 – 625 µm			0 – 250 mils 0 – 6 mm		0 – 500 mils 0 – 13 mm
Accuracy*		±(0.05 mils + 1%) 0 – 2 mils ±(0.1 mils + 1%) > 2 mils ±(1 µm + 1%) 0 – 50 µm ±(2 µm + 1%) > 50 µm			±(0.02 mils + 1%) 0 – 4 mils ±(0.1 mils + 3%) > 4 mils ±(0.5 µm + 1%) 0 – 100 µm ±(2 µm + 3%) > 100 µm			±(0.5 mil + 1%) 0 – 100 mils ±(0.5 mil + 3%) > 100 mils ±(0.01 mm + 1%) 0 – 2.5 mm ±(0.01 mm + 3%) > 2.5 mm		±(1 mil + 3%) 0 – 500 mils ±(0.02 mm + 3%) 0 – 13 mm
Matching DeFelsko Calibration Standards		STDS1 STDA1			STDS2 STDA2			STDP1		STDP5

\*Accuracies are stated as a fixed value plus a percentage of the gage's actual reading. EXTENDED CABLES available for underwater or remote measuring. Specify length when ordering.

## Probe Details

REMOVABLE BUILT-IN	REGULAR & FTS	90° REGULAR	FOS & NOS WITH ADAPTER	F45S & N45S	F90S & N90S	FNTS, FKS & NKS
 21mm/0.8" Side View	 30mm/1.2" ø16mm/0.6"	 50mm/2" 28mm/1.1" ø16mm/0.6"	 ø10mm/0.4" 64mm/2.5" 25mm/1" 56mm/2.2" ø14mm/0.6" 10mm/0.4" ø5mm/0.2" ø10mm/0.4"	 ø10mm/0.4" 58mm/2.3" 20mm/0.8" 12mm/0.5" ø5mm/0.2"	 ø10mm/0.4" 58mm/2.3" 20mm/0.8" 15mm/0.6" ø5mm/0.2"	 ø30mm/1.2" 30mm/1.2"

**ALL GAGES COME COMPLETE** with precision plastic shims, protective rubber holster with belt clip, wrist strap, 3 AAA alkaline batteries, instructions, nylon carrying case with shoulder strap, protective lens shield, Long Form Certificate of Calibration traceable to NIST, USB cable, two (2) year warranty.

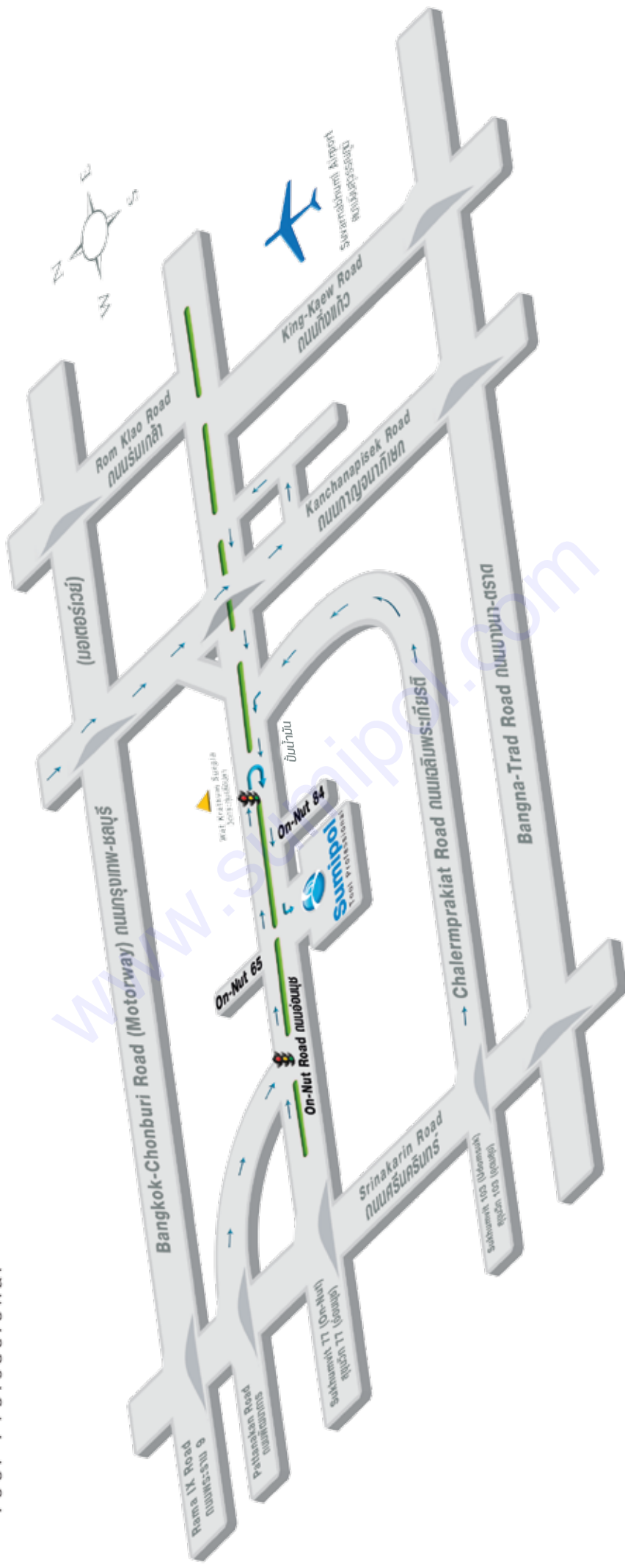






**Sumipol**  
Tool Professional

## แผนที่เส้นทาง (MAP)



บริษัท สุมิพล จำกัด  
**SUMIPOL CO.,LTD.**

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HEAD OFFICE & LOGISTICS CENTER

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**RAYONG SALES & SERVICE OFFICE**

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Wiring Systems (Thailand) Limited  
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**KORAT SALES & SERVICE OFFICE**

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