

Digital Torque Gauge HTGS/HTGA series

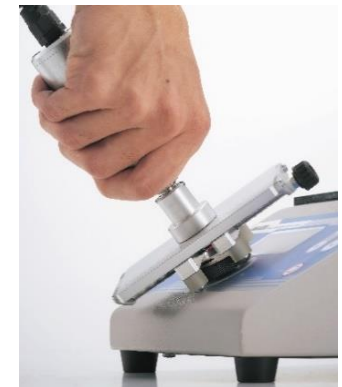
Handheld torque measurement instrument for wide applications
Changeable attachments expand application possibility
High usability with bright display and various functions



HTGA series



Testing image of precision screw



Testing image of rotary switch

Feature 1: Precise measurement	Feature 2: High usability	Feature 3: Easy data management
<ul style="list-style-type: none"> - Fast sampling rate 2000 Hz capture torque transition. - Small influence of bending and slant force by double bearing structure. 	<ul style="list-style-type: none"> - High bright organic EL display - Multi language set up menu of English, Spanish, French, Chinese, German, Italian, Korean and Japanese. 	<ul style="list-style-type: none"> - Easy connection with PC via USB - Data logging software is included - Optional graphing software is available.

Feature 4: Replaceable attachment

Easy operation of changing attachments



Prepare an attachment



Insert an attachment



Turn screw by attached L wrench

You can change the attachment according to a sample.
We offer custom made attachment for unique application.

* Attachments are not included HTGS/HTGA series.

[Specifications]

Model	HTGS	HTGA
Outline	Standard model with various functions	Advanced model with additional functions of DTXS series. Such as input/output angles and saving to USB flash drive etc.
Accuracy	±0.5%F.S.±1digit	
Unit of measurement (*1)	N-m, N-cm, kgf-m, kgf-cm, lbf-in, ozf-in (N-cm, kgf-cm, lbf-in and ozf-in are available for 0.5N-m.)	
Display	4-digit Organic EL	
Display update	16 / sec	
Sampling rate	2000 data / sec at maximum (*2)	
Battery	Nickel-hydrogen battery / Operating time:8 hours (2 hours full charge) (*3)	
Safe overload rating	Approx.200%F.S.	
Operating environment	Temperature: 0 to +40 degree Celsius, Humidity: 20 to 80%RH	
Function	Customized display (header and footer), Peak hold (clockwise and counter-clockwise), Internal 1000 points data memory, Comparator (judgment of OK or NG), Reversible display, Sign inversion, Zero clear timer, +NG alarm, Off timer (auto power off), Dumping, Time display, setting lock	
	-	1st/2nd peak, Angle detection at torque peak value (*4), Angle zero reset at selected torque(*4)
Output	USB, RS232C, Mitutoyo digimatic (*5), 2 VDC analog output (D/A), Comparator 3 steps (-NG/OK/+NG), Overload alarm	
	-	Sub comparator 2 steps (output of large or small judgment), USB flash drive, Angle(displacement) (*4)
Overload warning	Approx.110%F.S. (Warning message and alarm)	
External connecting switch	SEND (a point of contact holding), Zero reset, Peak ON/OFF setting	
Weight	Display: approx.490g	
Dimensions	See [Dimensions]	
Accessory	AC adapter, Inspection certificate, CD driver (including simple software for data logging), USB cable, Carrying case, L wrench, handles (10N-m range only)	
	-	USB flash drive adapter(*6)

*1 These are the specifications for International model. Please note that this unit is different from Japanese domestic model and international one.

*2 The recording rate to USB flash drive is selectable among 1, 50 and 100/sec.

*3 The battery is more consumed when connected to USB flash drive or a displacement scale.

*4 Angle (displacement) scale is necessary to activate this function.

*5 Not always available for Mitutoyo digimatic products.

*6 USB flash drive is not included.

[HTG series models]

Model		Range	Display	Resolution
HTGA-0.5N	HTGS-0.5N	50N-cm	50.00N-cm	0.01N-cm
HTGA-2N	HTGS-2N	2 N-m (200N-cm)	2.000N-m (200.0N-cm)	0.001N-m (0.1N-cm)
HTGA-5N	HTGS-5N	5 N-m (500N-cm)	5.000N-m (500.0N-cm)	0.001N-m (0.1N-cm)
HTGA-10N	HTGS-10N	10N-m (1000N-cm)	10.00N-m (1000N-cm)	0.01N-m (1N-cm)

[Accessories]

Data logging software: Force Logger



Features

- Measurement data can be imported easily.
- You can continuously transfer data to PC at 10Hz with ease.
- It automatically calculates Maximum, Minimum, and Average values.
- You can store data in CSV format.
- You can register measurement conditions and measurer's name.
- You can setup the force gauge's function.

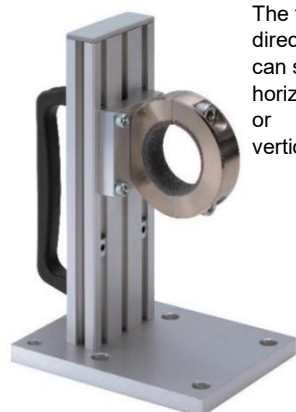
Operating environment

- OS: 7/8/8.1/10 (32/64bit version is available)
- Hardware : CPU Pentium4(1GHz or more), Memory 2GB, Hard disk : 10GB or more recommend
- Platform: .NET Framework4 or later
- Execute environment : Internet Explorer 6.0, Windows Installer 3.1 or later
- Connection port : USB1.1, USB2.0 connector

[Related products]

Small table DT-ST	Light weight small table DT-STL	Light weight wide table DT-STLW
A table attachment suitable for measuring small samples such as eye drops lids and padlocks.	Light weight table for 0.5N-m range. Small force can be measured due to light weight of the table.	Wide type of HT-STL. Capable of holding samples from φ10~100mm.
		
*Only for 2/5N-m range	*Only for 0.5/2N-m range	*Only for 0.5/2N-m range
Socket holder HT-9.5SQ	Pin chuck HT-DC series	Torque driver HT-DBH/HT-DBH-P
Suitable to fix torque wrench	Suitable to fix shaft and rod type samples	Suitable to measure tightening and losing torque
		
M10 adapter HT-AD-M10	Replacement battery BP-308	
Adaptable for M10 female attachment	Battery for replacement.	
		

Sensor Holder : SHT-5N



The fixing direction can set horizontally or vertically.



- Designed to hold the handheld type digital torque gauge horizontally or vertically.
- Enables high repeatability torque measurement by fixing the sensor.
- Attachable to your equipment by screws simply.

[Horizontal Sensor Fixing]

- Torque measurement of torsion spring etc

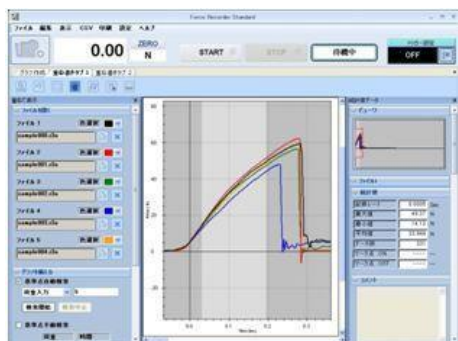
[Vertical Sensor Fixing]

- Turning torque of small screws or turbines.
- Simple screw cap measurement etc.

* Cannot be used for 10N-m range.

* Please refer to specification for SHT-5N for further information.

Graphing Software: Force Recorder



*The image is Force Recorders Standard.

- You can make graphs of force-displacement at real time via USB connection at 2000Hz.
- You can write memo on each graph. You may write down testing conditions such as testing speed.
- 5 graphs at maximum can be overlaid. (Standard, Professional edition)
- Enables to analyze torque-angle relationships. (Professional edition)

* Please refer to each specification for further information.

Wireless Data Transmit System : WL01 series



WL01-USB and WL01-ADP



Setting Image



WL01-BOX

- Transmits acquired measurement data to the device such as PCs wirelessly.
- Ideal for receiving data from remote location.
- Ensure accurate data transmission/reception detection and preventing interference functions.
- Enables to use your own equipment by publishing communication formats.

*Available from firmware Ver.3.10 and later

*Available countries and regions are limited.

*Please refer to the specification for details.

RS232C printer

*Please prepare the printer if necessary



Printer DP-1VA



Optional cables

Analog(3m) : **CB-108**

RS232C Cable (3m) : **CB-208**

Digimatic cable(3m) : **CB-308**

Contact point cable (3m) : **CB-808**

Open end cable (3m) : **CB-908**

Direct print is possible by RS232C connecting for the test condition and the results. Operability confirmed device: BL2-58 (Sanei Electric INC.)

It prints out the displayed force values.
*CB-308 cable is necessary.

Various cables are available.

Handy Torque-Angle Measurement Unit TAA-HTG series



- Easily analyzes torque-angle measurement
- Enables stable measurement with the height adjustable stay.

Items

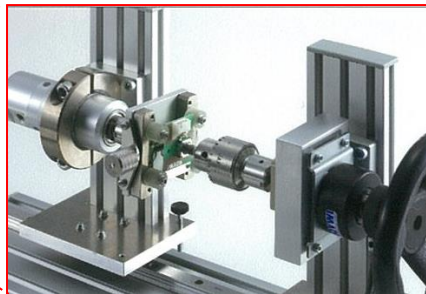
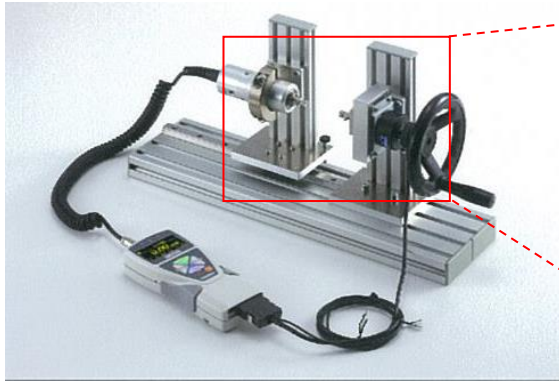
1. Handheld digital torque gauge HTGA series
2. Angle Meter Unit AMK-360
3. Software Force Recorder Professional

*Custom made stay and attachments for torque measurement are required to perform torque-angle testing.



For feeling test of rotary switches on car dashboard

Torque-Angle measurement Unit with Manual test stand (Custom-made)



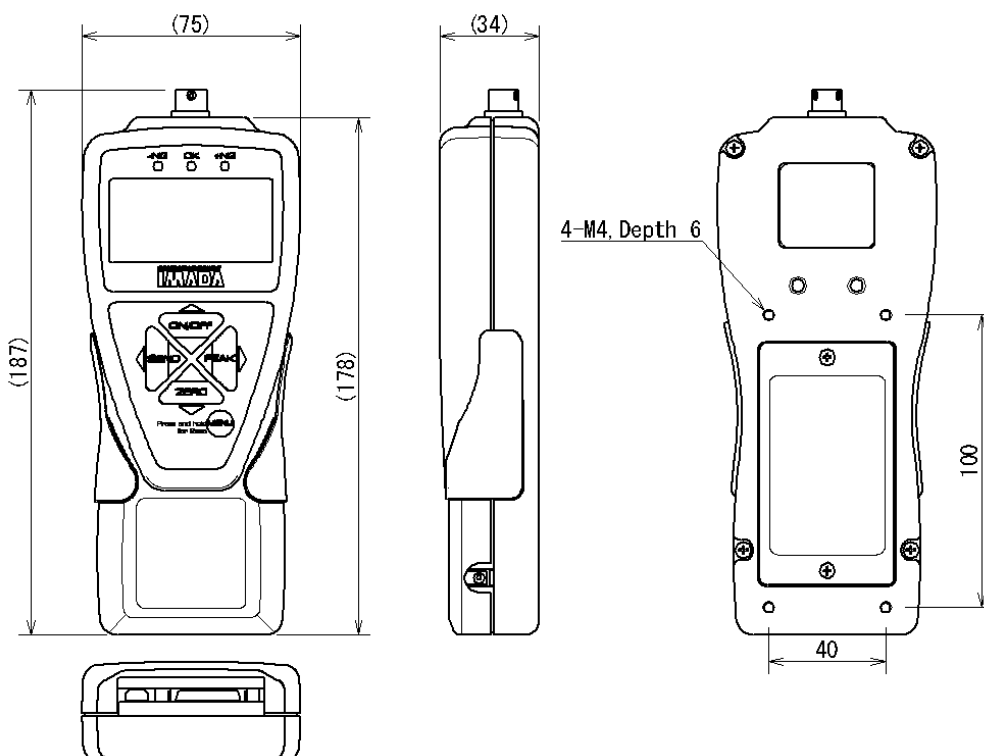
Torque-Angle Measurement of a small switch

- The sensor and the jig for chuck can be fixed on the stand.
- The handle enables stable measurement and analysis of torque-angle and improves repeatability.

* We offer custom-made products based on your needs.

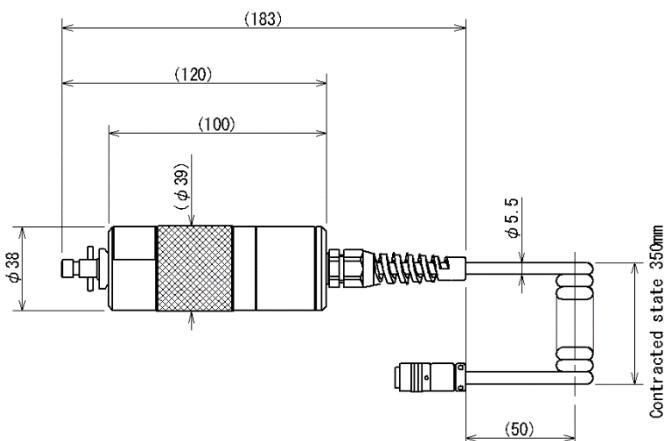
[Dimensions]

Indicator

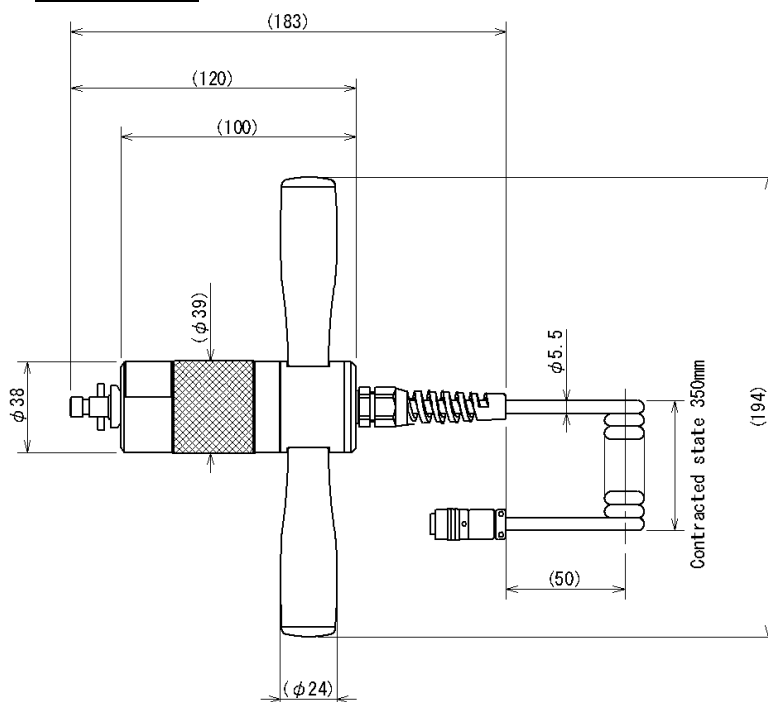


Unit: mm

Sensor: 0.5N, 2N and 5N



Sensor: 10N



Unit: mm

[Calibration Certificate]

- We offer calibration certificate with extra charge.
- * Please contact us or our distributor in your country for further information.

[Cautions]

- Information in this document is subject to change without prior notice.
- This document is product descriptions and handling precautions, and do not guarantee various characteristics or safety.
- This product is designed for force measurement purpose only.
- Do not copy and use this content without authorization.
- Do not apply force more than its capacity or from incorrect direction to the measuring shaft.
- Some samples may not be suitable to measure with this product.

IMADA CO., LTD

99 Jinnoshinden-cho aza Kanowari Toyohashi
Japan 441-8077
Tel: +81-(0)532-33-3288
Fax: +81-(0)532-33-3866
E-mail: info@forcegauge.net
Website: <http://www.forcegauge.net/en/>



Visit our website for more information on wide product specifications, measurement applications and videos.