

HIOS®

NEW
Torque waveform
& wireless
communication

DIGITAL TORQUE METER HDP SERIES

For measurement and inspection of fastening torque
and traceability management.



HERMES TOOLS

MADE IN JAPAN

Torque Meter HDP Series

HDP-5

Sensor module
Torque 0.015-0.500N · m

HDP-50

Sensor module
Torque 0.15-5.00N · m

HDP-50X

Sensor module
Torque 0.15-10.00N · m

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○Information in this document is the latest as of July 2025 ○ Catalog No. TRQHDPE-25A



<https://hios.com>

Newly Born

HDP SERIES

MADE IN JAPAN

HIOS's torque meter is one of the world's standards.

In 1970, at a time when the concept of torque control did not even exist, we developed the world's first industrial electric screwdriver, bringing new quality and reliability called "torque accuracy" to manufacturing sites.

Since then, we have worked on development of torque meters to further prove reliability of screw fastening, and established new standards for quality control in screw fastening. Today, this technology supports manufacturing sites in more than 90 countries.



DX of daily inspection work. This is an era of smart torque control.



Sending and receiving data wirelessly

Features the first torque data transfer function as standard in the series. The device is connected to a PC or PLC via Bluetooth or USB, and transfers the measurement data in real time. A manager can check and approve the results at his/her desk. This makes inspection and recording more efficient.



Large 3.5 inch display

A large display with excellent visibility is adopted. Torque value, waveform and judgment result can be confirmed at a glance, reducing operator error in judgment and supporting safe and reliable work.



Evolution of measurement modes

There are four standard measurement modes: "peak value," "fast peak value," "waveform," and "continuous waveform". With the real-time waveform display, abnormalities and variations can be visually notified for precise and reliable torque control.



Work smarter with remote control

Mode and threshold can be changed from an external device. This enables more convenient and efficient work, while saving power and labor.



Safe torque control with PASS/FAIL

Supports automatic judgment of PASS/FAIL by threshold setting. The judgment function can be switched ON/OFF. Flexible torque check can be done according to the application.



Data collection with specialized applications

Visualizes return and fastening torques of a screw, and supports the accuracy improvement and analysis of fastening torque control at a higher level. This is a multifunctional torque meter that supports measurement, waveform display, and data

NEW **HDP-5**

Compatible with H4 HIOS Shank

NEW **HDP-5X**

Compatible with 1/4HEX shank

NEW **HDP-50**

Compatible with H5 HIOS Shank

NEW **HDP-50X**

Compatible with 1/4HEX shank

Sensor module

Torque 0.015–0.500N · m

Sensor module

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Torque 0.15–5.00N · m

Sensor module

Torque 0.15–10.00N · m

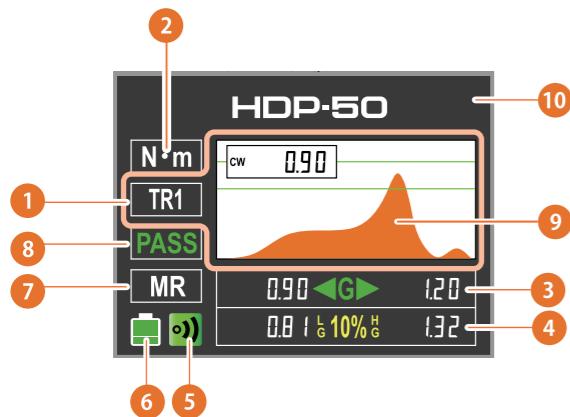


Visualizes return and fastening torques of a screw, and supports the accuracy improvement and analysis of fastening torque control at a higher level. This is a multifunctional torque meter that supports measurement, waveform display, and data control.

function 01

NEW Display

The torque measurement value is displayed in waveform, and the PASS/FAIL judgment setting can also be visually checked on the display. The measured value, work rate, torque value, etc., are displayed in an easy-to-see way, supporting the improvement of work efficiency.



Large
3.5 inch
display



function 02

1 Measurement mode

PEAK

Displays the slip torque during re-tightening. It captures the initial peak-down point and shows the corresponding value.



F. PEAK

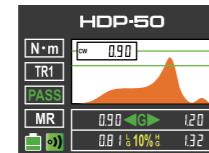
The highest actual measured value (peak value) during measurement is displayed. When CCW is selected, a minus sign is displayed.



NEW

TR1 (Torque waveform)

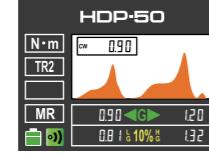
Fluctuations in the torque from the start to the end of measurement are displayed in a waveform, and the maximum torque value is displayed as a fixed numerical value. When the load is out of the measurement range, the measurement is terminated.



NEW

TR2 (Continuous torque waveform)

The value of the load applied to the detector is displayed. Even if the load is outside the measurement range, the waveform data can be measured continuously. You cannot use PASS/Fail judgment.



function 03

2 Unit

You can choose from two types of units and switching between them is easy.

NEW

3 PASS/Fail judgment threshold

Reference values for judging the PASS/Fail of the measured peak value are displayed.

NEW

4 Acceptable range for PASS/Fail judgment

Sets the acceptable range to the numeric value set by the PASS/ Fail judgment threshold.

5 Buzzer

Displays the status of the buzzer sound such as to-bechecked or warning tone.

NEW

6 Battery

Displays the device's battery level or charging status.

function 04

NEW

7 Auto reset mode

Auto reset mode is displayed. The display is automatically reset and the data is sent when the set time elapses after the measurement is finished.

NEW

8 PASS/Fail judgment result (PASS/FAIL)

Displays the judgment result of the measured value based on the PASS/Fail judgment threshold.

NEW

9 Torque waveform display

The continuity of the measured torque can be visualized with a waveform for a more intuitive understanding.

NEW

10 Auto power off mode

The screen saver starts automatically after a certain period of inactivity. After a certain amount of time elapses, the device enters auto power off mode, which automatically turns off the power.

NEW Efficient DX of daily inspection with a dedicated application!

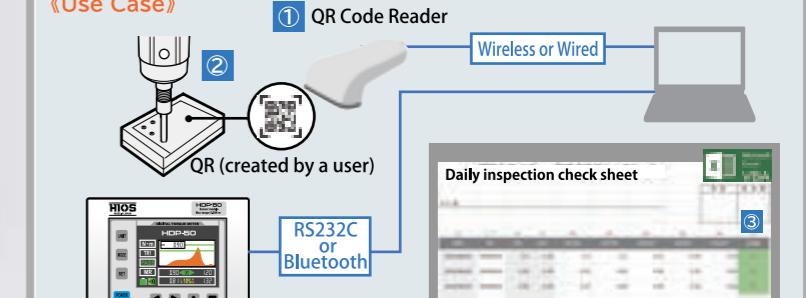
Recommended for daily inspection and approval Measurement data output

Measurement data can be transferred to a PC or control device. A variety of connection methods such as wireless communication, USB connection, etc., are supported for various usages. In addition, the unit settings can be operated from an external control device. Flexible system linkage contributes to efficiency and automation of work.

- The measured value is recorded in the inspection table as it is in Excel format automatic record + inspection approval column.
- Paperless inspection and more efficient operations

Connection method: Bluetooth/USB/RS-232C (optional) Supported OS: Windows 10/Windows 11

«Use Case»



- ① Automatic input of control ID and torque information embedded in QR
- ② When torque is measured by the detector, the measured value is automatically recorded in the blank field.
- ③ When the specified number of measurements are completed, the judgment result is automatically displayed.

Unit setting change and CSV

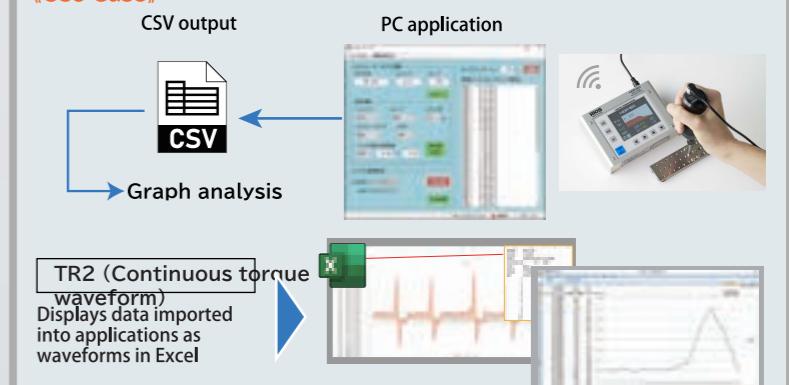
Collection and accumulation of measurement data

Measurement data is transferred to a PC, and can be easily collected and accumulated through the application. Export in CSV format is also supported for evaluation and analysis.

- Save measurement data in CSV format, remotely change the unit settings from PC
- Traceability enables you to check historical data at any time

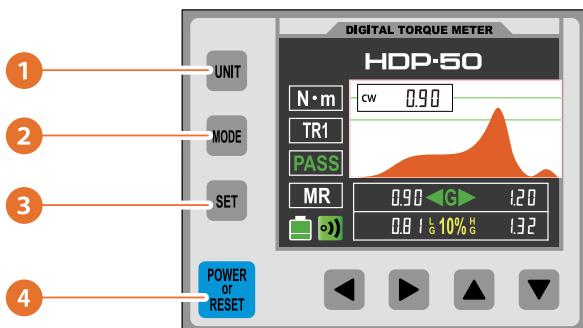
Supported OS: Windows 10/Windows 11

«Use Case»



Names and functions of the operation panel

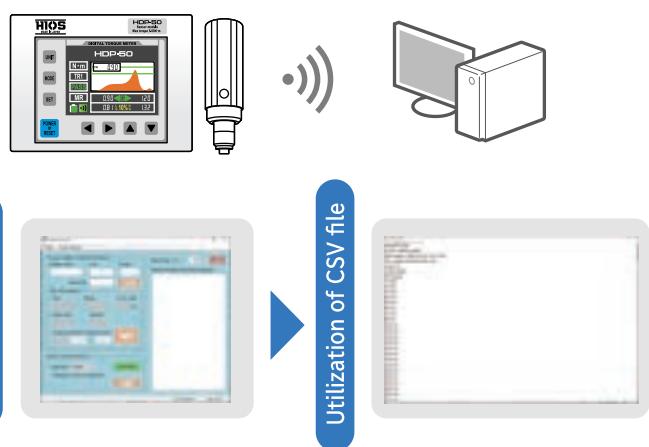
In addition to the highly visible and easy-to-operate large display, the PASS/Fail judgment, more battery capacity, and various functions are newly featured, leading dramatic improvement in work efficiency. The ease of use and functionality have improved more than ever - now it proposes new work style.



- 1 **UNIT** Possible to change measuring unit as below according to your needs.
- 2 **MODE** You can select from four modes: PEAK (peak), F.PEAK (fast peak), TR1 (waveform), and TR2 (continuous waveform).
- 3 **SET** Various functions such as buzzer sound setting, automatic data transmission setting, PASS/Fail judgment setting, etc., can be set to improve work efficiency.
- 4 **POWER or RESET** Turns on the power and transfers measurement data. There is also the auto reset mode that automatically transfers the data without pressing any button.

External output

Connects the measurement data by wireless or wired connection to an external device and transfers the data.

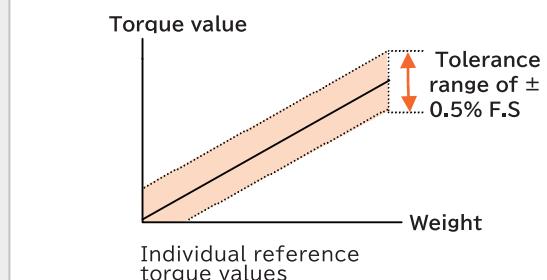


Communication setting parameters

Item	Baud rate	Data length	Strip bit	Parity	CTS/RTS-control	Format	Delimiter
Comm. parameters	115,200 bps	8 bit	1 bit	none	none	ASCII	LF

Measurement accuracy

Our accuracy is F.S. (full scale). If the product accuracy is $\pm 0.5\%$, $\pm 0.5\%$ of the maximum torque is applied to the lower torque.



Specifications

Model name		HDP-5	HDP-5X	HDP-50	HDP-50X			
								
Measurement range	N·m	0.015-0.500	0.015-0.500	0.15-5.00	0.15-10.00			
	N·cm	1.5-50.0	1.5-50.0	15-500	15-1000			
	lbf·in	0.15-4.40	0.15-4.40	1.5-44.0	1.5-90.0			
	kgf·cm	0.15-5.00	0.15-5.00	1.5-50.0	1.5-100.0			
Shank		H4	1/4HEX	H5	1/4HEX			
Enclosed Bits : 1pc each		HIOS Shank (H4) + #0×40mm + #1×40mm	HEX Shank (1/4HEX) + #1×50mm + #2×50mm	HIOS Shank (H5) + #0×60mm + #1×60mm + #2×60mm	HEX Shank (1/4HEX) + #1×50mm + #2×50mm			
Measurement direction		Clockwise, Anticlockwise						
Measurement mode		PEAK,F.PEAK ^{*1} , TR1,TR2						
Measurement accuracy		Within ±0.5% (F.S.)						
Scalability and communicat		Micro USB Type-B port supports the following: (1) Charging (2) Data transfer (USB 2.0, up to 480Mbps)						
Power and battery	Power input	AC100-240V 50/60Hz 0.4A						
	Power output	DC5V 2A (max. 10W)						
	Built-in battery	Built-in 1,000 mA nickel-metal hydride battery 3.6V (operating voltage 3.3V)						
	Max. operating current	300mA (when power is on)						
	Operating time	Up to 2.5 hours (measurement and data transfer)						
	Charging method	Charging from PC via USB or AC adapter						
	Full charge time	About 5 hours						
	Battery life	About 500 times of charging						
	Power consumption	Up to 1.5W						
Wireless communication (for Wireless model)		Bluetooth Classic Ver 4.2 Serial Port Profile Frequency bandwidth: 2.4GHz						
Size:Detector (Length×diameter)		92×ø32mm	98×ø32mm	131×ø35mm	140×ø35mm			
Size: Detector (Length×diameter)		134×100×36mm (excluding the largest projection)						
Weight	Operation Panel	495g						
	Detector	105g	216g					
Operating environment		Temperature: 15 to 35°C Relative humidity: 25 to 65% (no condensation)						
Accessories		This unit, USB cable, AC adapter, detector, case, detector cord (2m), inspection certificate, manual & warranty card, support arm, bits (details listed above).						

*1 The lower limits of the measurement range are HDP-5:0.026-, HDP-50:0.26-.



HP Series Renewed!

For torque setting of electric screwdrivers and torque control of other tools.



HP-10

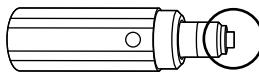
Sensor module
Max torque 1.000N · m

HP-100

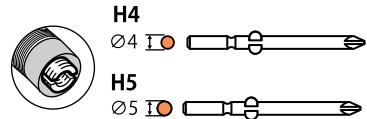
Sensor module
Max torque 10.00 N · m

Order Codes

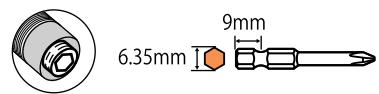
When purchasing, please make sure to select correct joint shaft socket for the bit.



HIOS Shank



HEX Shank



measuring unit:

NN → N · m ⇔ N · cm NL → N · m ⇔ lbf · in

NK → N · m ⇔ kgf · cm KL → kgf · cm ⇔ lbf · in

Model	Measuring unit	Bluetooth HIOS Drive	RS232C HIOS Drive
Unit	Order Code	Order Code	Order Code
HDP-5	NN	HDP-5-NN-R3	HDP-5-NN-R3-W
	NL	HDP-5-NL-R3	HDP-5-NL-R3-W
	NK	HDP-5-NK-R3	HDP-5-NK-R3-W
	KL	HDP-5-KL-R3	HDP-5-KL-R3-W
HDP-50	NN	HDP-50-NN-R3	HDP-50-NN-R3-W
	NL	HDP-50-NL-R3	HDP-50-NL-R3-W
	NK	HDP-50-NK-R3	HDP-50-NK-R3-W

Model	Measuring unit	Bluetooth 1/4 HEX Drive	RS232C 1/4 HEX Drive
Unit	Order Code	Order Code	Order Code
HDP-5X	NN	HDP-5X-NN-R3	HDP-5X-NN-R3-W
	NL	HDP-5X-NL-R3	HDP-5X-NL-R3-W
	NK	HDP-5X-NK-R3	HDP-5X-NK-R3-W
	KL	HDP-5X-KL-R3	HDP-5X-KL-R3-W
HDP-50X	NN	HDP-50X-NN-R3	HDP-50X-NN-R3-W
	NL	HDP-50X-NL-R3	HDP-50X-NL-R3-W
	NK	HDP-50X-NK-R3	HDP-50X-NK-R3-W
	KL	HDP-50X-KL-R3	HDP-50X-KL-R3-W



Efficient DX for daily inspections!

Collect and accumulate data with dedicated app Automatic record in PC + Workflow linkage