



DIGITAL TORQUE METER

HDP SERIES

For measurement and inspection of fastening torque and traceability management.



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

HIOS Inc.

Head Office 1-35-1 Oshiage, Sumida-ku, Tokyo, 131-0045, Japan Phone: +81 (Japan) 36661-8828

Osaka Office Naniwasuji SIA building 18F, 2-4-2, Shinmachi, Nishi-ku, Osaka City, Osaka Prefecture, 550-0013, Japan Phone: +81 (Japan) 6 6533-0903

Nagoya Office Kirix Marunouchi Building 9F, 1-17-19 Marunouchi, Naka-ku, Nagoya City, Aichi Prefecture, 460-0002, Japan Phone: +81 (Japan) 52 219-5566

Yamagata Plant 5 Takagi, Yamagata City, Yamagata Prefecture, 990-2346, Japan Phone: +81 (Japan) 23 645-8100

HIOS (SHENZHEN) Co., LTD. Technical Service Center and Show Room 1302, Block B, Sunshine Science and Technology Innovation Center, Nanxin Rd, Nanshan District, Shenzhen China 518000 Phone: +86 (China) 755-26674278

○ Please note that some of the specifications and appearance of the products may be changed for improvement without prior notice.

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<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.

PASS/FAIL

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

Sensor module
Torque 0.015-0.500N • m

NEW

HDP-5X

Compatible with 1/4HEX shank

Sensor module
Torque 0.015-0.500N • m

NEW

HDP-50

Compatible with H5 HIOS Shank

Sensor module
Torque 0.15-5.00N • m

NEW

HDP-50X

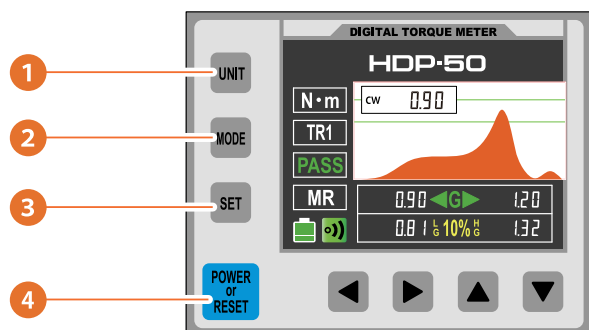
Compatible with 1/4HEX shank

Sensor module
Torque 0.15-10.00N • m



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.

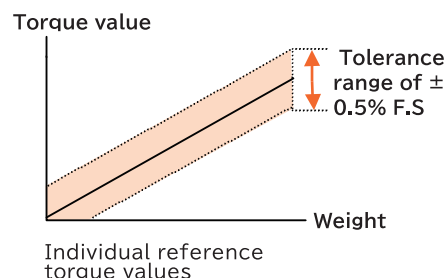


Communication setting parameters





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



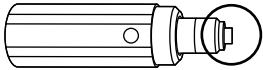
Specifications

Model name		HDP-5	HDP-5X	HDP-50	HDP-50X
					
Measure- ment 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 communica- tion (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-.

Order Codes

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



HIOS Shank



H4

ø4

H5

ø5



HEX Shank



6.35mm

9mm



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
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
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

NEW
Torque waveform
& wireless communication



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 10.00N • m



Efficient DX for daily inspections!

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