



## TACHO HiTESTER FT3405, FT3406

Environmental Measuring Instruments



# Rugged Design and Optimal Functionality

### Safety

#### ✓ Long non-contact distance

The FT3405 and FT3406 has a detection distance 2.5 times greater than its HIOKI predecessor, extending the distance from moving parts for added safety.

HIOKI 3403/ 3404	200 mm/ 7.8"
HIOKI FT3405/ FT3406	<b>500mm/ 19.7"</b>

#### ✓ Red LED

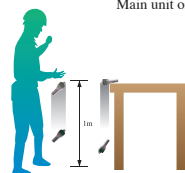
The red LED lets you continuously focus on the measurement spot even when testing from afar.



### Reliability

#### ✓ DROP PROOF

Testers are built tough to withstand a 1-meter drop onto a concrete floor.



#### ✓ Dust-proof construction

IP50 dust-proof structure makes the Tacho HiTESTERS tough against the dirt and dust that are unavoidable in field environments.



### Convenience

#### ✓ Contact Testing Also Available

By using the optional Z5003 contact adapter, the FT3405 and FT3406 become contact-type tachometers.



#### ✓ Signal Output

**FT3406 only**

With the built-in analog output and pulse output functions, you can record the variations in rotation by connecting the Tacho HiTESTER to a recorder or data logger. Use an AC Adapter with the FT3406 for long-term measurements.



ISO 9001  
JMI-0216



ISO14001  
JQA-E-90091



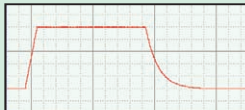
[www.hioki.com](http://www.hioki.com)

HIOKI company overview, new products, environmental considerations and other information are available on our website.

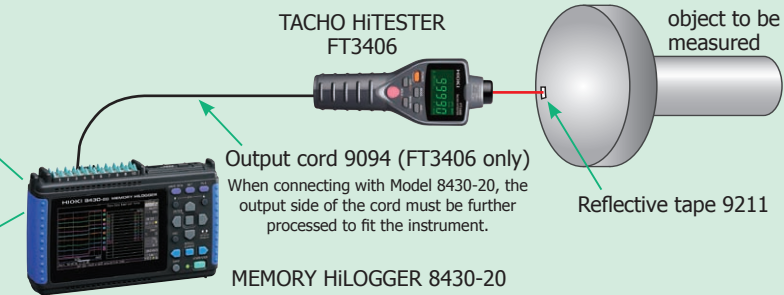
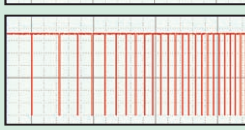
## Waveform Recording

Measure signal variations with a waveform recorder or data logger by using the FT3406's analog output or pulse output functions. Use a multi-channel logger in combination with input from other types of sensors, or a multi-channel recorder to simultaneously measure voltage and current.

Analog output



Pulse output



## Specifications

Guaranteed accuracy period: 1year

Measurement method	Using red visible-spectrum light and reflective tape or a reflective plate (Z5003 Contact Adapter)
Display	Transmissive FSTN LCD
Range switching	Automatic
Detection range	50mm to 500mm (1.97" to 19.7")
Reflection detection indicator	Flashing red LED built into [HOLD] key, buzzer
Sampling period	62.5 ms to 2 s (depending on usage conditions)
Display refresh rate	Approx. 0.5 to 10 times/sec
Drop proof	1m onto concrete surface
Dustproof and waterproof	IP50 (EN60529)
Functions	MAX/MIN display, Display hold, Average, Auto power save, Buzzer, Backlight function
Operating temperature	0 to 50°C (32 °F to 122 °F)
Operating humidity	Up to 40°C (104 °F) 80%RH or less 40°C to 45°C (104 °F to 113 °F) 60%RH or less 45°C to 50°C (113 °F to 122 °F) 50%RH or less (non-condensing)
Storage temperature and humidity	-10°C to 50°C (14 °F to 122 °F), 80%RH or less (non-condensing)
Applicable standards	EMC : EN61326, EN61000-3-2, EN61000-3-3 Safety : EN61010
Power supply	LR6 alkaline battery×2 AC ADAPTER Z1004 (FT3406 only)
Maximum rated power	0.5VA
Continuous operating time	Approx. 30 hours (FT3405) or approx. 25 hours (FT3406); When using alkaline batteries with buzzer off
Dimensions	Approx. 71W×186H×38D mm (2.80"W×7.32"H×1.5"D)
Mass	Approx. 230g (8.1oz.) (with batteries)

### FT3406 only

Analog output	Output level: 0-1Vf.s., Output resistance: 1kΩ, Accuracy: ±2%f.s., Accuracy guarantee temperature and humidity range: 23°C±5°C, 80%RH or less, Temperature coefficient: Add [accuracy specifications x 0.1 x ( T-23 )], where T is the operating temperature [°C]. No temperature coefficient for 18°C to 28°C range.
Pulse output	Output level: 0-3.3V±0.3V, Output resistance: 1kΩ
Functions	Power input terminal, AC adapter detection, output terminal setting

## Specifications

Note 1: The lowermost digit is fixed at 0 at speeds of 20,000r/min and greater.  
Note 2: The lowermost digit is fixed at 0 when the averaging setting is off.

### [Tacho Testing]

MODE	Non-contact		Contact	
	AVG=ON	AVG=OFF	AVG=ON	AVG=OFF
r/min	30.00 to 199.99		15.00 to 199.99	
	200.0 to 1999.9	300.0 to 1999.0	200.0 to 1999.9	150.0 to 1999.0
	2000 to 19999	2000 to 19990	2000 to 19999	2000 to 19990
	20000 to 99990	20000 to 99990		
r/s	0.5000 to 1.9999		0.2500 to 1.9999	
	2.000 to 19.999	5.000 to 19.990	2.000 to 19.999	2.500 to 19.990
	20.00 to 199.99	20.00 to 199.90	20.00 to 199.99	20.00 to 199.90
	200.0 to 1600.0	200.0 to 1600.0	200.0 to 333.0	200.0 to 333.0
Cycle (ms)	0.6000 to 1.9999	0.6000 to 1.9990		
	2.000 to 19.999	2.000 to 19.990	3.000 to 19.999	3.000 to 19.990
	20.00 to 199.99	20.00 to 199.90	20.00 to 199.99	20.00 to 199.90
	200.0 to 1999.9		200.0 to 3999.9	200.0 to 399.0

### [Count Testing]

count	0 to 999999 (Input conditions: Up to rotational speed measurement upper limit)
-------	---

### [Cycle Speed]

MODE	Contact	
	AVG=ON	AVG=OFF
Cycle (m/min)	1.500 to 19.999	
	20.00 to 199.99	15.00 to 199.90
Cycle (ms)	0.0250 to 1.9999	0.2500 to 1.9990
	2.000 to 19.999	2.000 to 19.990
	20.00 to 33.30	20.00 to 33.30

### Accuracy:

	AVG=ON	AVG=OFF
Up to 9999 counts	±1dgt.	±10dgt.
10000 counts or more	±2dgt.	±20dgt.
20000 counts or more (r/min mode only)	±20dgt.	±100dgt.
Period measurement only	±0.5%rdg. is added to above-mentioned accuracy.	

## Bundled Accessories

Reflective tape 9211 (1 sheet)  
Output cord 9094 (FT3406 only)

Carrying case



## Option

Contact Adapter Z5003 (includes 9032, two 9033 and 9212)			
	Metal contact tip 9032	Rubber contact tip 9033	Peripheral ring 9212
	Reflective tape 9211 (10 sheets) (30 pieces per sheet, each piece 12 × 12 mm)	FT3406 only 	
		AC Adapter Z1004	

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.

# HIOKI

HIOKI E. E. CORPORATION

### Headquarters :

81 Koizumi, Ueda, Nagano, 386-1192, Japan  
TEL +81-268-28-0562 / FAX +81-268-28-0568  
http://www.hioki.co.jp / E-mail: os-com@hioki.co.jp

### HIOKI USA CORPORATION :

6 Corporate Drive, Cranbury, NJ 08512 USA  
TEL +1-609-409-9109 / FAX +1-609-409-9108  
http://www.hiokiusa.com / E-mail: hioki@hiokiusa.com

### HIOKI (Shanghai) Sales & Trading Co., Ltd. :

1608-1610, Shanghai Times Square Office, 93 Huai Hai Zhong Road  
Shanghai, P.R.China POSTCODE: 200021  
TEL +86-21-63910090/63910092 FAX +86-21-63910360  
http://www.hioki.cn / E-mail: info@hioki.com.cn

### Beijing Office :

TEL +86-10-84418761 / 84418762

### Guangzhou Office :

TEL +86-20-38392673 / 38392676

### HIOKI INDIA PRIVATE LIMITED :

Khandela House, 24 Gulmohar Colony Indore 452 018 (M.P.), India

TEL +91-731-4223901, 4223902 FAX +91-731-4223903

http://www.hioki.in / E-mail: info@hioki.in

### HIOKI SINGAPORE PTE. LTD. :

33 Ubi Avenue 3, #03-02 Vertex, Singapore 408868

TEL +65-6634-7677 FAX +65-6634-7477

E-mail: info@hioki.com.sg

DISTRIBUTED BY

# FINAL TEST<sup>MR</sup>

Venta de Instrumentos de Prueba y Medición

www.finaltest.com.mx  
Calle del Ebanó #16625  
Tijuana B.C. Mexico  
Tel. (664)681-1130  
Tel. 01800 027-4848  
ventas@final-test.net