

TACHO HiTESTER 3403, 3404

Field measuring instruments



High 0.01 r/min resolution
Wide range digital
tachometer covers up to 100,000r/min



3404

3403

Digital tachometers offering high resolution and covering a wide range up through 100,000 r/min.

Choose from two models to match your needs: the basic 3403 and the multi-functional 3404.



ISO 9001
JMI-0216



ISO 14001
JQA-E-90091



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Record r/min data with the Universal 3404

High-precision, high-resolution

Maximum 0.01 r/min resolution and high ± 1 dgt. precision make the tachometer effective for precise measurements.

Internal micro-computer for multi-functional performance (3404 only)

MIN, MAX-Holds minimum and maximum r/min, r/s values.

TOTAL-Provides total rotation counts from 0 to 500,000 for real-time rotation count measurement.

PERIOD-Accurately measure rotation pulses from 600 μ s to 2.000 seconds.

Analog output (3404 only)

Stable analog signal output from low to high speeds provides clear recording by merely connecting your existing recorder. Output sampling mode can be set to slow or fast to meet different application needs.

Double performance from one tachometer

By using the optional 9213 contact adapter the 3403 and 3404 become contact-type tachometers, while the peripheral ring can be used in applications like measurement of conveyer line speed (period).

Simple reflector detection check

LED and buzzer signals confirm that the light pulses reflected from the tape on the rotating body are being picked up. Signals can be turned on and off freely.

r/min \leftrightarrow r/s

Switch units even during measurement.

Auto-ranging function covers from 30 to 100,000 r/min.

Tripod mounting socket included.

AC and DC power supplies may be used.

Measurement range

Note: Contact adapter may be used for rotations up to 20,000 r/min.

NORMAL, MIN and MAX modes (MIN and MAX modes only on the 3404)

SLOW sampling (3403 and 3404)

	Range	Accuracy
r/min	30.00 to 199.99	30.00 to 99.99 ± 1 dgt. 100.00 to 199.99 ± 2 dgt.
	200.0 to 1999.9	200.0 to 999.9 ± 1 dgt. 1000.0 to 1999.9 ± 2 dgt.
	2000 to 19999	2000 to 9999 ± 1 dgt. 10000 to 19999 ± 2 dgt.
	20000 to 99990	± 10 dgt.
r/s	0.5000 to 1.9999	0.5000 to 0.9999 ± 1 dgt. 1.0000 to 1.9999 ± 2 dgt.
	2.000 to 19.999	2.000 to 9.999 ± 1 dgt. 10.000 to 19.999 ± 2 dgt.
	20.00 to 199.99	20.00 to 99.99 ± 1 dgt. 100.00 to 199.99 ± 2 dgt.
	200.0 to 1600.0	200.0 to 999.9 ± 1 dgt. 1000.0 to 1600.0 ± 2 dgt.

Note: Display will read 0.0 below 30 r/min or 0.5 r/s.

FAST sampling (3404 only)

	Range	Accuracy
r/min	120.00 to 199.90	± 40 dgt.
	200.0 to 1999.0	200.0 to 999.0 ± 20 dgt. 1000.0 to 1999.0 ± 40 dgt.
	2000 to 19990	2000 to 9990 ± 20 dgt. 10000 to 19990 ± 40 dgt.
	20000 to 99900	± 200 dgt.
r/s	2.000 to 19.990	2.000 to 9.990 ± 20 dgt. 10.000 to 19.990 ± 40 dgt.
	20.00 to 199.90	20.00 to 99.90 ± 20 dgt. 100.00 to 199.90 ± 40 dgt.
	200.0 to 1600.0	200.0 to 999.0 ± 20 dgt. 1000.0 to 1600.0 ± 40 dgt.

Note: Display will read 0.0 below 120 r/min or 2 r/s.

TOTAL mode (3404 only) - 0 to 499999 5-digit display. (decimal point code used for 100,000 counts and over)

PERIOD mode (3404 only) 600 μ s to 2.000 s - ± 1 dgt. for 4 digit display, ± 2 dgt. for 4 1/2 - digit display.

Specifications

Measurement method	:Visible light reflection
Display	:LCD 4 1/2 digits (5 digits with the last digit fixed at 0 for 20,000 r/min and higher). TOTAL measurement 5 digits (3404 only). HOLD, r/min, r/s, B marks (MAX, MIN, TOTAL, PERIOD, μ sec, msec, sec [3404 only])
Over range display	:----- displays
Detection distance	:50 to 200 mm (1.97" to 7.87")
Reflected light detection confirmation	:Buzzer and LED
Operating temperature/humidity	:0 to 40 °C 80% RH or less (no condensation)
Analog output	:1000m VDC f.s. (3404 only). Output accuracy $\pm 1\%$ rdg. ± 1 m V, output resistance 1k Ω
Power supply	:R6P (AA) $\times 4$ (continuous use of 16 hours) or AC adapter (6V, 300mA, 100V only)
Dimensions and mass	:Approx. 182H \times 62W \times 38Dmm (7.17"H \times 2.44"W \times 1.50"D) Approx. 260g (9.2 oz.)

Selection guide





	Single-function type	Multi-function type
	3403	3404
Measurement method	Non-contact	Non-contact
Sampling rate	0.5 to 2.0 sec	SLOW mode 0.5 to 2.0 sec FAST mode 0.1 to 0.5 sec
FAST/SLOW mode select	-	○
Mode select (total count measurement PERIOD (period measurement))	-	○
Analog output	-	○
Auto-range function	○	○
Data hold function	○	○
Tripod mounting	○	○
AC power jack	○	○
Accessories	Reflective tape 9211 (1 sheet) Carrying case	Reflective tape 9211 (1 sheet) Output cord 9094 Carrying case

Optional accessories

Reflective tape 9211 (10 sheets)

(30 pieces per sheet, each sheet 12 \times 12 mm)

Output cord 9094 (1.5 m)

9213	(includes 9032, two 9033 and 9212)		
Contact adapter	9032	9033	9212
	Metal contact tip	Rubber contact tip	Peripheral ring
			

9213 dimensions: 70H \times 62W \times 39Dmm (Not including contact tip)

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