

MODELS HHT & HHTP - ACCURATE 5-DIGIT PRECISION MEASURING HAND HELD TACHOMETERS

- **MICRO-COMPUTER CIRCUITRY**

The exclusive one chip Micro-computer LSI-circuit and crystal time base is used to accurately provide a wide measurement range.

- **MEMORY**

The last maximum/minimum reading will be automatically stored in memory and can be displayed by pressing the "MEMORY" switch.

- **ERROR-FREE READING**

Highly visible LCD display, with Leading Zero Blanking gives exact RPM with no guessing or errors and saves battery energy.

- **RUGGED AND LIGHTWEIGHT CONSTRUCTION**

The use of durable, long-lasting components, including a strong, lightweight ABS-plastic housing assures maintenance-free performance for many years. The housing has been carefully shaped to fit comfortably in either hand.

- **BATTERIES INCLUDED**

Model HHT
Contact Type



Model HHTP
Photo Type



DESCRIPTION

The CONTACT TACHOMETER (*Model HHT*) incorporates precision bearings instead of gears to ensure long life while providing minimal loading to the rotating shaft. A built-in photo-sensor and slotted disc detect the number of revolutions for a high degree of accuracy. By simply pressing the "MEASURE" button and lightly contacting the conical tip against the center hole of a rotating shaft, the RPM will be displayed and updated every second. By attaching the circumferential speed wheel (*included*), the Model HHT can measure surface speed in "Switch Selectable" units of either feet per minute (*FT/MIN*) or meters per minute (*M/MIN*).

The PHOTO TACHOMETER (*Model HHTP*) provides for non-contact RPM measurements which enhances operator safety when measuring high speed shafts. By pressing the "MEASURE" button and aiming the Visible Light Beam at a piece of reflective tape (*included*) on the rotating shaft, RPM will be displayed and updated every second. A display indicator blinks once each revolution to ensure that the reflecting mark is within the 2" to 12" sensing distance of the Model HHTP.

Both units can display Memory values which are obtained immediately before turning off the "MEASURE" button. The last value, Maximum value and Minimum value can be displayed by pushing the "MEMORY" button as follows:

1. First Push and Hold = Last value displayed:
"LA" and last value alternately displayed.
2. Second Push and Hold = Maximum value displayed:
"UP" and maximum value alternately displayed.
3. Third Push and Hold = Minimum value displayed:
"DN" and minimum value alternately displayed.

These memory features are useful when the measurement to be made is in a "hard-to-access" area where the display is not visible to the operator.

A "LO" (*low battery*) display is incorporated in both units and is a visible reminder when batteries are to be replaced.

BATTERY REPLACEMENT

- A) When it is necessary to replace the batteries (*battery voltage less than approx. 4.5 V*), "LO" will appear in the display.
- B) Slide the battery cover away from the instrument and remove the batteries.
- C) Install new batteries correctly into the case. Permanent damage to the tachometer circuit may result from incorrect installation.

CONTACT TACHOMETER SPECIFICATIONS

1. **MEASUREMENT RANGE:**
0.5 to 8,000 RPM
0.05 to 1999.9 m/min.
0.2 to 6560 ft/min.
2. **RESOLUTION:**
0.1 RPM (0.5 to 999.9 RPM)
1 RPM (over 1000 RPM)
0.01 m/min. (0.05 to 99.99 m/min.)
0.1 m/min. (over 1000 m/min.)
0.1 ft/min. (0.1 to 999.9 ft/min.)
1 ft/min. (over 1000 ft/min.)
3. **ACCURACY:** $\pm(0.05\% \text{ full scale} + 1 \text{ digit})$
4. **SAMPLE TIME:** 1 sec. (*over 6 RPM*)
5. **POWER CONSUMPTION:** Approximately 10 mA.
6. **ACCESSORIES INCLUDED:** RPM adapters (*1 cone, 1 funnel*), Surface speed test wheel, Carrying Case, Instruction Manual.
7. **WEIGHT:** 0.58 lb. (260 g) including battery

PHOTO TACHOMETER SPECIFICATIONS

1. **MEASUREMENT RANGE:** 5 to 99,999 RPM (*one reflecting mark*)
2. **RESOLUTION:** 0.1 RPM (0.5 to 999.9 RPM)
1 RPM (over 1000 RPM)
3. **ACCURACY:** $\pm(0.05\% \text{ full scale} + 1 \text{ digit})$
4. **SAMPLING TIME:** 1 sec. (*over 60 RPM*)
5. **DETECTING DISTANCE:** (2-6 inches) (*50 to 150 mm*) Typical max. 12 inches (*300 mm*) depending upon ambient light.
6. **POWER CONSUMPTION:** Approximately 150 mA (*Operation*).
Approximately 20 mA (*Memory Recall*)
7. **ACCESSORIES INCLUDED:** Carrying Case, 23.6 inches (*600 mm*) Reflective tape, Instruction Manual.
8. **WEIGHT:** 0.55 lb. (250 g) including battery

COMMON SPECIFICATIONS

1. **DISPLAY:** 5-digit, 0.4" high LCD.
2. **MEMORY TIME:** 10 sec. nominal.
3. **TIME BASE:** Quartz crystal.
4. **BATTERY:** 4 x 1.5 V AA size.
5. **OPERATING TEMPERATURE:** 32°F to 120°F (*0°C to 50°C*).
6. **SIZE:** 6.7" x 2.8" x 1.5" (*170 mm x 72 mm x 37 mm*)

ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
HHT	LCD Hand Held Contact Tachometer	HHT00000
HHTP	LCD Hand Held Photo Tachometer	HHTP0000
-	Replacement 1/2" x 2" Reflective Tape For HHTP	HHTRT000
-	HHT Rubber Wheel	HHTWHL00
-	HHT Cone Point Disc With Shaft	HHTCONE0
-	HHT Concave Disc	HHTCONC0