



Contact & Photo Tachometers

Extech offers both contact models for direct measurements and non-contact models (including laser models) for use on machinery where access is limited or high speed measurements are required.

Featuring Model **RPM10**

► Non-contact and Contact rpm

Combination meter permits rpm measurements in any situation

► Laser Light Source

Provides greater measuring distance up to 6.5ft (2m)

► Built-in InfraRed Thermometer

Quickly locate overheating motors or bearings

► Double Molded Housing

for better grip and added durability



Patented



RPM10 - Tachometer's patented built-in InfraRed Thermometer takes non-contact surface Temperature measurements.

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

461891-NIST
461893-NIST
461895-NIST
461995-NIST
RPM10-NIST
Limited NIST: Product certified to all functions except IR Thermometer.
RPM10-NISTL

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	461891	461893
Range rpm	0.5 to 20,000	5 to 99,999
ft/min	0.2 to 6560	—
m/min	0.05 to 1999.9	—
yd/min	—	—
Basic Accuracy	±0.05%rdg	±0.05%rdg
Max rpm Resolution	0.1rpm	0.1rpm
Laser	—	—
Temperature (IR)	—	—
Dimensions	6.7x2.8x1.5" (170x27x37mm)	6.7x2.8x1.5" (170x27x37mm)
Weight	9.2oz (260g)	8.8oz (250g)
CE	Yes	Yes
Warranty	1 year	1 year



461891 Contact Tachometer

Fast and accurate RPM and surface speed measurements

- Make contact measurements of rotating objects
- Measure linear surface speeds in ft/min or m/min using three accessory wheels provided
- Recalls Last/MAX/MIN values
- Complete with cone tip, flat tip and spare wheel for surface speed measurements, four 1.5V AA batteries, and carrying case



461893 Non-contact Photo Tachometer

Non-contact RPM measurements using visible light

- Make non-contact rpm measurements of rotating objects
- Use reflective tape on object to be measured and point the integral light beam
- Integral light beam has an ideal measurement range up to 6" (152mm) distance
- Readings updated every second
- Recalls Last/MAX/MIN values
- Complete with 23" (0.6m) reflective tape, four 1.5V AA batteries, and carrying case



461895 Combination Contact/Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Uses visible light to read up to 6" (150mm) from target
- Memory/readings button holds last reading for 5 min and recalls min/max readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case



461995 Combination Contact/ Laser Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- **Laser guided** for greater distance non-contact measurements up to 6.5ft (2m)
- Memory/readings button holds last reading for 5 min and recalls MAX/MIN readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case



BUILT IN IR
Thermometer
Patented

RPM10 Combination Laser Tachometer + IR Thermometer

Photo/Contact Tachometer includes a non-contact IR Thermometer for surface temperature measurements

- Built-in IR thermometer with laser measures remote surface temperature on motors and rotating parts
- Fixed 0.95 emissivity, 6:1 distance to target ratio
- Non-contact Photo tachometer uses a Laser for greater measuring distance up to 6.5ft (2m)
- Contact tachometer for RPM and surface speed measurements
- Recalls Last/MAX/MIN values
- Characters on display reverse direction depending on mode
- Complete with tips/wheel, four 1.5V AA batteries, reflective tape, and carrying case

Accessories

461937 Reflective Tape



- Used with non-contact Photo Tachometers to measure speed of rotating objects
- Includes ten reflective tape strips — 23" x 0.25" (584mm x 6mm) ea. strip

461990 Contact Wheels



- Used with Contact Tachometers to measure surface speed of rotating objects and linear speed
- Includes 2 sets of three attachments (cone tip, flat tip, and spare wheel)

461895	461995	RPM10	Model
Photo: 5 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 20,000	Range rpm
0.2 to 6560	0.2 to 6560	0.2 to 6560	ft/min
0.05 to 1999.9	0.05 to 1999.9	0.05 to 1999.9	m/min
—	—	—	yd/min
±0.05%rdg	±0.05%rdg	±0.05%rdg	Basic Accuracy
0.1rpm	0.1rpm	0.1rpm	Max. rpm Resolution
—	Yes	Yes	Laser
—	—	—	Temperature (IR)
8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	Dimensions
10.6oz (300g)	10.6oz (300g)	10.6oz (300g)	Weight
Yes	Yes	Yes	CE
1 year	1 year	1 year	Warranty

461920 Mini Laser Photo Tachometer Counter

Non-contact RPM and Revolution count measurements

Features:

- Measure non-contact RPM readings of rotating objects by pointing the integral laser on the reflective tape placed on the object to be measured
- Large 5 digit LCD display with backlighting
- Memory button for Last/MAX/MIN readings
- Counter function counts to 99,999 revs
- Rugged double molded housing
- Complete with 9V battery and reflective tape



Specifications	Function
	RPM range 2 to 99,999 rpm
	Count range 1 to 99,999 rev (revolution)
	Target Distance 1.6ft (500mm)
	Basic Accuracy ±0.05%
	Resolution 0.1rpm, 1 count
	Memory Min/Max/Last
	Dimensions/Weight 6.2x2.3x1.6" (160x60x42mm)/5.3oz (151g)

Ordering

461920.....Mini Laser Photo Tachometer Counter
 461920-NIST....461920 with NIST Certificate
 461937.....Spare reflective tape (23" each strip), 10pk

461700/461750 PocketTach® Mini Tachometers

For rpm and surface speed measurements

Features:

- Ergonomically designed and pocket size housing with protective finger guard
- Large (99,999 count) LCD display
- Autoranging with 0.1% basic accuracy
- Hold button freezes displayed readings
- Complete with 9V battery; 461700 includes reflective tape; 461750 includes surface wheels
- 461750 Contact Tachometer
 - Surface wheels enable tachometer to measure linear surface speeds (ft/min, m/min, yd/min)
- 461700 Non-contact Tachometer
 - Use reflective tape on object to be measured and point the integral light beam
 - Measures up to 6" (152mm) from target



Specifications	Function	Model 461700	Model 461750
	rpm (max res.)	10 to 99,999rpm (0.001)	10 to 10,000rpm (0.001)
	ft/min (max res.)	—	3 to 6560ft/min (0.0001)
	m/min	—	1 to 1999.9m/min
	yd/min	—	1 to 5,000yd/min
	Basic accuracy	±0.1%rdg	±0.1%rdg
	Sampling Time	1sec>60rpm, >1sec>10 to 60rpm	1sec>60rpm, >1sec>10 to 60rpm
	Dimensions	4.9x2x1.3" (124x50x33mm)	5.9x2x1.3" (149x50x33mm)
	Weight	4oz (114g)	5oz (142g)

Ordering

461700.....PocketTach® Mini Photo Tachometer
 461700-NIST....461700 with NIST Certificate
 461750.....PocketTach® Mini Contact Tachometer
 461750-NIST....461750 with NIST Certificate

461825 Combination Photo Tachometer/Stroboscope

2 meters in one — Stroboscope to analyze rotating objects and Tachometer to measure rpms

Features:

- Stroboscope course and fine flash rate adjustments to freeze and analyze rotating objects
- Unique display features characters that reverse direction depending on measurement mode
- Large 0.4" (10mm) 5 digit LCD display
- Memory stores Last/MAX/MIN readings
- Complete with four 1.5V AA batteries, reflective tape, and carrying case



Specifications	Function	Photo Tachometer (rpm)	Stroboscope (fpm/rpm)
	Range (rpm)	5 to 99,999	100 to 100,000
	Accuracy	±0.1%rdg	±0.1%rdg
	Sampling Time	1 Sec ≥ 60rpm;	1 Sec ≥ 60rpm;
	Resolution	0.1rpm (<1,000rpm) 1rpm (≥1,000rpm)	0.1fpm (<1,000fpm) 1fpm (≥1,000fpm)
	CE/Warranty	CE approved, one year warranty	
	Dims/Wt	8.5x2.6x1.5" (215x65x38mm) / 10.6oz (300g)	

Ordering

461825.....Tachometer/Stroboscope
 461825-NIST....461825 with NIST Certificate
 461937.....Spare reflective tape (23" each strip), 10pk

461830 Digital StroboTach

Freeze motion and analyze rotating objects without contact

Features:

- Checks and analyzes motion and speed by simply aiming and synchronizing its flash rate (fpm) with a rotating object
- rpms on 4 digit LED display
- Flash/Speed Rate of 100 to 10,000fpm/rpm; Basic accuracy of 0.05% rdg
- Duty Cycle of 5 to 30mins
- Tripod mount for stationary use
- Dims: 8.3x4.8x4.8" (211x122x122mm) Wt: 2.2lbs (1kg)
- CE approved, 1 year warranty
- Complete with 6ft (1.9m) power cord and handle



461834

Ordering

461830Digital StroboTach 115VAC, 60Hz
461830-NIST..461830 with NIST Certificate
461831Digital StroboTach 220VAC, 50Hz
461831-NIST..461831 with NIST Certificate
461834Spare Xenon Lamp (est life 300hrs), 2pk

461960 RPM Controller/Monitor

Built-in Control and Alarm Relays with user-settable high/low alarm limits

Features:

- RPM, m/min, ft/min
- Hysteresis value setting for control and alarm functions
- Roller diameter value setting for surface speed measurement
- User settable pulse per rotation value
- Large 0.5" (13mm) 4-digit LED display
- DIN size 3.8x1.9x4.2" (96x48x107mm)
- RS-232 interface with optional software
- Optional proximity and photo sensors
- Complete with bracket for mounting in standard 1/8 DIN panel cutout



461957
Photoelectric



461955
Proximity

Ordering

461960RPM Controller/Monitor
461955Proximity Sensor, max. 36,000rpm
461957Photoelectric Sensor, max. 6000rpm
407001Data Acquisition Software and Cable

Specifications	Function	
	Input Signal	Pulse
	Time Base	Quartz Crystal
	Range	10 to 99,999RPM, 0.2 to 32,805ft/min, 0.05 to 9,999m/min
	Resolution	0.1RPM, 0.1ft/min, 0.01m/min
	Accuracy	±(0.1% + 1 digit)
	Sampling Time	1 second (approx)
	Relay Outputs	Control (1ACA/250ACV; 1DCA/24DCV max) High/Low Alarm (1ACA/250ACV; 1DCA/24DCV max)
	Sensor Power Supply	12VDC, 50mA max
	Power	90 to 260VAC, 50/60Hz
	CE/ Warranty	CE/ 1 year
	Dimensions/Weight	3.8x1.9x4.2" (96x48x107mm)/ 13.5oz (384g)

461950 1/8 DIN Panel Tachometer

Continuous & accurate readings from 5 to 99,990rpm

Features:

- Large LED display updates 1/sec (rpm<60)
- Unique design permits rpm measurements of a one hole gear or disk eliminating the need for special gears
- A pulse is measured when a ferrous object (stud) passes by sensor
- Choice of two sensor pickup types (both include 6ft/1.8m cable): Proximity sensor: 0.1" (3mm) target distance, range up to 36,000rpm (600Hz); Photoelectric sensor: 0.4" (10mm) target distance, range up to 6000rpm (100Hz)



461957
Photoelectric



461955
Proximity



Ordering

461950Panel Mount Tachometer
461955Proximity Sensor, max. 36,000rpm
461957Photoelectric Sensor, max. 6000rpm

Specifications	Function	
	rpm	5 to 99,990rpm
	Basic accuracy	±0.05%
	Resolution	0.1rpm (5 to 1000rpm), 1rpm (1000 to 9999rpm), 10rpm (10,000rpm to 99,990rpm)
	Power	115V or 230V AC; 50/60Hz
	Warranty	1 year
	Dimensions/Weight	Bezel 3.8x1.9x2.4" (96x48x60mm); Panel cutout 3.6x1.8" (92x45mm) Meter 3.6x3.5x1.7" (92x90x42mm)/ 14oz (397g)