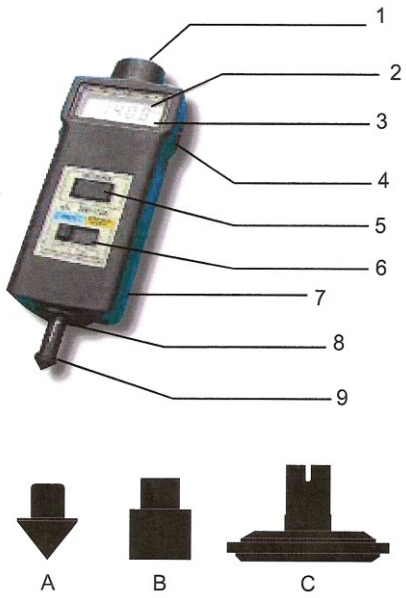
Digital Photo / Contact Tachometer

This Digital Photo / Contact Tachometer provides accurate measurement of spindle speeds in RPM and surface speed in m/min
Clear LCD Display
5 x 10mm high digits
Sampling time Contact: 1 sec. (over 15 rpm)
Sampling time Photo: 1 sec. (over 60 rpm)
Range selection: Automatic
Memory: Last value, Max value, Min value
Time Base: Quartz crystal
Circuit: Single chip microprocessor, LSI chip
Power: 4 x 1.5v AA batteries
Power consumption: Approx. 80mA during operation
Operating Temperature: 0 - 50°C
Size: 215 x 65 x 38mm
Weight: 300g (including batteries)

Packed Weight and Dimensions

Code	Description	Weight g	W mm	H mm	L mm
59-800-236	Digital Photo / Contact Tachometer	688	135	80	255



1 Signal Light Beam
2 Monitor Indicator
3 Display Panel
4 Measure Button
5 Memory Button
6 Function Switch
7 Battery Cover
8 Rotating Spindle
9 Adaptor Holder

A Rubber Cone (internal fitting)
B Rubber Wheel (external fitting)
C Surface Speed Wheel

Method	Range	Resolution	Detecting \Distance	Accuracy
Photo	2.5 – 99.999 rpm	0.1 rpm for 0.5 – 999.9 rpm 1 rpm over 1000 rpm	50 – 150mm / 2 – 6” Maximum 300mm / 12”	±(0.05% + 1rpm)
Rotation / rpm	2.5 - 19,999 rpm	0.1 rpm for 0.5 – 999.9 rpm 1 rpm over 1000 rpm		±(0.05% + 1rpm)
Surface / m/min	0.05 – 1,999.9 m/min 0.2 – 6,560 ft/min	0.01 m/min for 0.05 – 99.99 m/min 0.1 m/min over 100 m/min 0.2 ft/min for 0.1 – 999.9 ft/min 1 ft/min over 1000 ft/min		±(0.05% + 0.03m/min)

Measuring Procedures

Photo Tachometer RPM

Apply reflective tape to object being measured
Slide Function Switch to PHOTO/RPM position
Depress Measure Button and align light beam with the reflective tape/target
Check that the Monitor Indicator lights when the target passes through the light beam
Release the Measure Button when the reading stabilises (approximately 2 seconds)
The RPM value will now be displayed

If the rotational speed is less than 50 rpm, additional tape can be applied, equally spaced around the rotating part
The displayed measurement can then be divided by the number of reflective marks to obtain the actual rpm
This method gives better resolution and stability when working with low value revolutions

The non-reflective area should always be greater than the reflective area
If the shaft or disc is normally reflective it must be covered with black tape or paint before applying the reflective tape

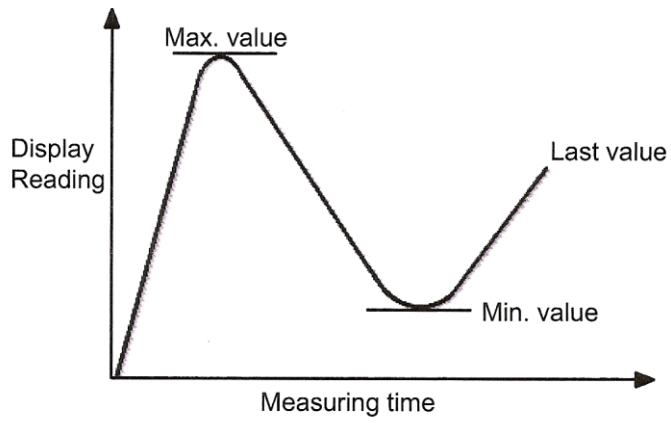
Contact Tachometer RPM Measurement:

Select correct Rubber Cone required for either spindle or hole location and fit to the Adaptor Holder
Slide Function Switch to CONTACT/RPM position
Lightly press Rubber Cone into the centre hole of the rotating spindle or the Rubber Wheel onto the revolving shaft
Ensure that the centre lines of the Tachometer and the revolving shaft are correctly aligned and turn synchronously together
Depress Measure Button until the reading stabilises (approximately 2 seconds)
The RPM value will now be displayed

Surface Speed Measurement

Fit Surface Speed Wheel to the Adaptor Holder
Slide Function Switch to SURFACE SPEED/M/MIN or ft/min position
Apply Surface Speed Wheel to moving surface ensuring they both move synchronously
Depress Measure Button until the reading stabilises (approximately 2 seconds)
The M/MIN value will now be displayed

Memory



Following release of the Measure Button
Max, Min and Last Value can be recalled in turn by depressing the Memory Button

Max value symbol: "UP"
Min value symbol: "dn"
Last value symbol: "LA"

Battery Replacement

When the battery voltage falls below 5v, a small battery image will appear on the display screento indicate that the battery requires changing
Slide the battery cover away from the instrument and remove the old batteries
Replace with 4 new 1.5v AA batteries ensuring that they are correctly aligned as marked inside the case

Batteries should be removed if the instrument is not to be used for an extended time
Used batteries should be disposed of in the correct way