

 **LABFACILITY**
TEMPERATURE & PROCESS TECHNOLOGY

STROBOSCOPE/TACHOMETER DT2239-2



A mains powered microprocessor based stroboscope/tachometer with a digital display, ideal for the measurement of rotational speeds of motors, pumps, fans, etc.

Operation

1. Connect the unit's IEC power connector (figure 1. H) to a suitable power source via an IEC interconnecting lead.
2. To switch on the unit, depress the switch marked 'power' (figure 1. A) to latch it into its lower position.
3. Estimate the rotational speed of the piece of equipment to be measured and select low or high speed range as appropriate. Depress the switch marked 'range' (figure 1. B) to select the lower speed range.

Motion checking

1. Determine the actual speed using the above method.
2. Adjust the fine adjustment knob (figure 1. C) in either direction; this will give a slow motion effect to allow inspection of a moving part.

WARNING

Do not look directly at strobe tube/reflector. Light pulses at frequencies greater than 5Hz may cause photosensitive epilepsy in some individuals if directly viewed.

A feature of this instrument is to make moving objects appear stationary. Precautions should therefore be taken to ensure there is no physical contact with the objects being viewed.

Speed checking

1. Set up the unit as described in 'Operation'
2. Point the unit at the rotating part to be measured, ensuring that the area is fully illuminated.
3. Adjust the coarse adjustment knob (figure 1. D) to obtain approximate synchronization (the rotating part appears to be almost stationary).
4. The final adjustment should be undertaken using the fine adjustment knob (figure 1. C), when the rotating part appears to be stationary, this is the true actual speed.
5. Read off the indicated speed from the display (figure 1. G). In cases where the speed is greater than 9999 FPM/RPM, the auto-ranging indicator (figure 1. F) will glow. In these cases multiply the indicated reading by 10 to obtain the true speed.

Note: Care should be taken to ensure that the unit flashes and the monitored parts are in unison (one to one). A stroboscope will also stop motion at 2:1 (twice the true speed), 3:1, 4:1, etc. This is referred to as the harmonic effect.

About Labfacility

Formed in 1971, Labfacility specialize in the field of Temperature and Process Measurement.

We are the largest UK manufacturer of both temperature sensors and thermocouple connectors

Quality & Service

Quality and Service are key elements in the continued growth of Labfacility.

Technical support is always freely available from our experienced technical sales teams and the company has ISO9001 accreditation.

Contact Details

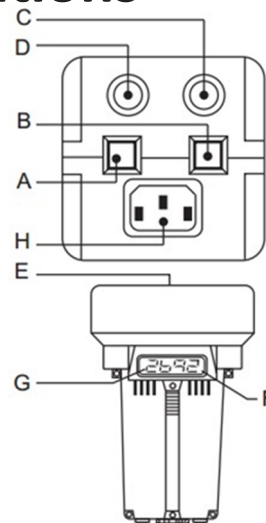
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Specifications



- A. Power on/off switch
- B. Low/high range selection switch
- C. Fine adjustment knob
- D. Coarse adjustment knob
- E. Flash tube/lens
- F. Auto range indicator
- G. Display
- H. IEC power input connector

Technical specification

Display:	0.3" LED, 4 digits.
Stroboscopic flash rate:	100 to 10,000 flashes per minute (FPM).
Tachometer speed rate:	100 to 10,000 revolutions per minute (RPM).
Accuracy:	±(0.05% +1 digit).
Resolution:	0.1 FPM/RPM (less than 1,000 FPM/RPM). 1 FPM/RPM (1,000 to 9,999 FPM/RPM). 10 FPM/RPM (over 10,000 FPM/RPM).
Test range select:	A: Low range- 100 to 1,000 FPM/RPM). B: High-range- 1,000 to 10,000 FPM/RPM).
Sampling time:	1 second.
Operating voltage:	230V ±10% 50Hz.
Operating temperature:	0° to 50°C.
Operating humidity:	Less than 80% R.H.
Dimension:	21 x 12 x 12cm (8.3 x 4.8 x 4.8").
Weight:	1kg (2.2lb).
Housing:	Compact rugged impact plastic injection case. Plastic lens. Mirror type reflector.
Microprocessor circuit:	This stroboscope/tachometer employs a one-chip microcomputer LSI

Flash tube specification

Flash tube:	Xenon lamp.
Flash colour:	Xenon white 6,500 K°.
Flash duration:	Approximately 60 to 100 microseconds.
Flash energy:	4 watts-seconds (joules).
Operating duty cycle:	For prolonged life and safe operation, adhere to the following duty cycle: Below 2,000 RPM - 30 minutes. Above 3,600 RPM - 5 minutes. Always allow a 10 minute cooling off period between cycles.
Beam angle:	80°.

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