

# DIGITAL STROBOSCOPE

Model : DT-2269

ISO-9001, CE, IEC1010



## FEATURES

- \* Push keyboard setting.
- \* External trigger input.
- \* RS232 computer interface output.
- \* Flash rate :  
5 to 10,500 RPM/FPM.  
0.083 to 175 Hz
- \* Display 14 mm LED, 6 digits.
- \* High resolution.
- \* Main function : Fine adjust, Coarse adjust, Multiply by 2, Divide by 2, Fast finder, Memory recall.
- \* Memorize 10 sets of measuring data.
- \* Crystal time base and microprocessor circuit, not necessary take any calibration procedures.
- \* Power supply :  
AC 110V/220V/230V, 50/60 Hz.
- \* Application for inspecting and measuring the speed of moving gears, fans, centrifuges, pumps, motors, general industrial maintenance, production, quality control, laboratories, schools and colleges...

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***The Art of Measurement***

*push keyboard setting, external trigger, RS232*

# DIGITAL STROBOSCOPE

**Model : DT-2269**

## FEATURES

- \* DT-2269 is a microprocessor circuit design, high accuracy, digital readout STROBOSCOPE. Adjusting the "Flash Rate" by push button keyboard, unique design in the world, easy operating & with intelligent function. That is ideal for inspecting and measuring the speed of moving gears, fans, centrifuges, pumps, motors and other equipment used in general industrial maintenance, production, quality control, laboratories and as well as for schools and colleges for demonstrating strobe action.
- \* External trigger input.
- \* RS232 computer interface output.

## SPECIFICATIONS

Display	14 mm ( 0.56" ) LED, 6 digits.	External trigger	Input signal : 5V to 30 V rms, 5 to 10,500 RPM. 0.083 to 175 Hz.
Set up unit	Flash rate - RPM/FPM, Hz * <i>FPM - flash per minute.</i>		
Flash rate set up range	RPM 5 to 12,500 RPM. Hz 0.083 to 175 Hz.	Power supply	AC 110V 10%, 50/60 Hz. or AC 220V 10%, 50/60 Hz. or AC 230V 10%, 50/60 Hz.
Resolution ( internal trigger )	RPM/ FPM 0.1 RPM <i>5 to 999.9 RPM</i>	Circuit	This stroboscope/tachometer employs a custom one-chip of microcomputer LSI circuit & crystal control time base which results in extraordinary accuracy & high set up stability over a wide, dynamic range.
	1 RPM <i>1,000 to 9,999 RPM</i>		
	10 RPM <i>10,000 to 12,500 RPM</i>		
	Hz 0.001 Hz <i>&lt; 10 Hz</i>		
	0.01 Hz <i>10 Hz - 99.99 Hz</i>	Power consumption	Less than 30 Watt.
	0.1 Hz <i>100 - 208 Hz</i>	Dimension	21 x 12 x 12 cm ( 8.3 x 4.8 x 4.8 inch ).
Accuracy	$\pm ( 0.15 \% + 0.2 \text{ RPM} ) \text{ rdg.}$ <i>&lt; 1,000 RPM</i>	Weight	1Kg/2.2 LB.
	$\pm ( 0.5 \% + 1 \text{ RPM} ) \text{ rdg.}$ <i>1,000 to 3,300 RPM</i>	Housing case	Compact and impact plastic injection case with plastic mirror type reflector.
	$\pm 1 \% \text{ FS.}$ <i>3,301, to 12,500 RPM</i>	Calibration	Crystal time base and microprocessor circuit, not necessary take any external calibration procedure if the stroboscope working properly.
	<i>rdg : reading, FS : full scale</i>	Accessories included	Operation manual.....1 PC. Power cord..... 1 PC.
Switch Select Function	RPM, Hz Fine adjust, Coarse adjust, Multiply by 2, Divide by 2, Fast finder, Memory recall.	Optional Accessories	* RS232 cable.....UPCB-02 * USB cable..... USB-01. * Data Acquisition software .....SW-U801-WIN.
Memory	Can memorize 10 sets of measuring data.		
Set up stability	1 digit within 10 minute.		
Data output	RS 232 computer interface.		
Operating temp.	0 to 50 °C (32 to 122 °F).		
Operating humidity	Less than 80% R.H.		
Operating duty Cycle	For prolong life and safe operation, please adhere to the following duty cycle: < 2000 RPM - 2 hours,                   2000 to 3600 RPM - one hour, 3601 to 8000 RPM - 30 minutes,     > 8000 RPM - 10 minutes. * <i>10 min. cooling off period between cycles.</i>		

## FLASH TUBE SPECIFICATIONS

Flash tube	Xenon lamp.	Flash tube replacement	It is required to change the flash tube when the instrument start to flash irregularly at speeds of 3600 RPM/FPM or more.
Flash Duration	Approximately 60 to 1,000 microseconds.		
Flash color	Xenon white 6,500 K degree		
Flash energy	4 Watts-seconds (joules).		
Beam Angle	80 degrees.		

## OPERATIONS PROCEDURES

Preparation	(a) Plug unit into a properly grounded 110V AC, 220V AC or 230V AC outlet. (b) Turn the power switch to " on " position. (c) Determine the range switch to " Low " or " High " position.
Checking Speed	When checking speed, care must be taken to insure that the strobe is flashing in unison (one to one) with the object being monitored. A Stroboscope will also stop motion at 2:1, 3:1, 4:1 et., this is normally referred to as harmonies. To be sure of unison, turn the dial until two images appear - this will double the actual speed. Then lower the flashing rate until a single and stationary image appears - this is the actual true speed.
Checking Motion	For motion analysis, simply locate the actual speed as mentioned above and then turn the dial slowly up or down. This will give a slow motion effect allowing complete inspection.

<b>Remark</b>	When order the stroboscope, should inform the power supply type is AC 110V, or 220 V or 230V.
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\* Appearance and specifications listed in this brochure are subject to change without notice.