

# RISHI ML5 MULTI LAMPS STROBOSCOPIC SYSTEM

**ONE REMOTE CONTROL UNIT PLUS  
UP TO FIVE HIGH BRIGHTNESS SEPARATED LAMPS**



- FREQUENCY RANGE 5.000 FLASHES/MIN (RPM) WITH LCD DIGITAL SPEED
  - CONTROL UNIT AND SEPARATED LAMPS, WITH CABLE LENGTH UP TO 20 MT
  - AVAILABILITY TO ADD UP TO 5 SEPARATED LAMPS TO INCREASE FLASH LAMP BRIGHTNESS AND ILLUMINATED AREA
  - INNOVATIVE MICROPROCESSOR CIRCUIT TO DEVIDE FLASH FREQUENCY
  - RANGE UP TO 128.000 IMPULSE/MIN FROM EXT TRIGGER: PROBLEMS OF OVER-RANGE AND OVER-HEATING DUE TO FLASH SYNCHRONIZATION OF FAST SPEED ARE TOTALLY ELIMINATED
  - HIGH BRIGHTNESS FLASHES REGARDLESS OF INPUT FREQUENCY
- FLASH CONTROL BY INTERNAL OSCILLATOR AND BY EXTERNAL TRIGGER
  - PHASE SHIFTER CIRCUIT TO SHIFT THE ANGLE OF OBSERVATION ON 360°
  - LAMPS ARE EQUIPPED WITH FAN-COOL FOR LONG TIME CONTINUOUS USE
  - RUGGED, RELIABLE, COMPACT, EASY TO USE - FULLY COMPLIES WITH CE DIRECTIVES

**INNOVATION IN STROBOSCOPIC OBSERVATION:** with the new **multi** stroboscope it is possible to obtain Stationary images of an object is always obtained with a high flash brightness at any movement speed, thanks to an innovative microprocessor circuit that automatically devides real frequency each time a certain limit has been overcome: stopped image happens at submultiple frequencies of the real frequency, while flash brightness is always with high intensity. Functionality and reliability of instrument will be particularly appreciated: a high flash brightness is always available for constant optimal observation and the problems of over-range and over-heating due to flash synchronization of fast speed by external trigger are eliminated. Moreover a "direct readout" function is available to directly measure the real speed of an object: flash frequency is not devided by microprocessor and it is possible to observe and to measure the real speed of an object in a precise way.

## **DESIGN AND OPERATION**

RISHI Multi-Lamps System is a professional instrument with Control Unit and one or more separated Lamps: it is possible to add up to five separated Lamps, all Lamps are contemporaneously controlled by the Control Unit. Multi-Lamps System is ideal for hard continuous use in production and maintenance industry, whenever a high brightness of flash lamp it is necessary: the synchronization of the flash lamp occurs by means of external trigger (with tachimetric function) such as the internal oscillator with coarse and fine regulation for a quick and precise adjustment. Revolution readout in RPM is easy thanks to a large dot matrix lcd display. High brightness internal lamp with STROBE function permits constant optimal observation: when fast movement are observed with external trigger synchronization, problems of over-range and over-heating are totally eliminated, and long time observations are possible always with high brightness flash lamp. Up to five separated lamps can be used to further increase the intensity of flash lamp and illuminated area. The phase shifter circuit permits an image shifting on 360°, to obtain the angle of observation into the most favourable position. Lamps are equipped with a fan-cool to permit a long time use, and of a standard 0-5V TTL output, to connect external devices. Lamps are suitable for a fixed mounting near the object to be illuminated, such as for a portable use. Lamps are encased in a rugged, high-impact plastic housing, with handle for the best Portability, the Control Unit is compact and light weight. Cable length between Control Unit and Lamps can be up to 20 mt.

## **APPLICATIONS**

RISHI Multi-Lamps System is used in all Production and Maintenance Industries, wherever motion sequences have to be analysed or rotation speeds have to be measured.: observation on textile and printing machines - quality control - observation of mechanical deformations - packaging - laboratories - etc.

## **RISHI ML5 MULTI LAMPS SYSTEM      TECHNICAL CHARACTERISTICS**

<b>FREQUENCY RANGE</b>	250 - 5.000 flashes/min
<b>DIRECT USE</b>	flash frequency 250 - 5.000 flashes/min
<b>AUTOMATIC DIVISION USE</b>	flash frequency 250 - 4.000 flashes/min (automatic flash division set at 4.000 flashes/min)
<b>DIVIDER FREQUENCY</b>	automatic flashing division :2 :4 :8 :16 :32, on external signal and internal oscillator
<b>FLASH CONTROL</b>	by internal oscillator not devided - by internal oscillator devided - by external signal devided
<b>INTERNAL OSCILLATOR</b>	coarse and fine adjustment of flash frequency
<b>EXTERNAL TRIGGER</b>	electric signal >1Vpp - inductive sensor - photocells - microswitch - (with tachimetric function)
<b>DISPLAY</b>	by means of dot matrix LCD display in RPM
<b>RESOLUTION</b>	1 RPM - <b>DELAY TIME</b> adjustable from 0,1 a 60 ms. approx
<b>LAMP</b>	long life xenon white light tube
<b>FLASH ENERGY</b>	40 - 250 mWs/flash (in Automatic Flashing Division Use flash energy is always max)
<b>POWER SUPPLY</b>	220Vac - 50/60 Hz
<b>DIMENSION</b>	160x140x230mm
<b>WEIGHT</b>	1,000kg