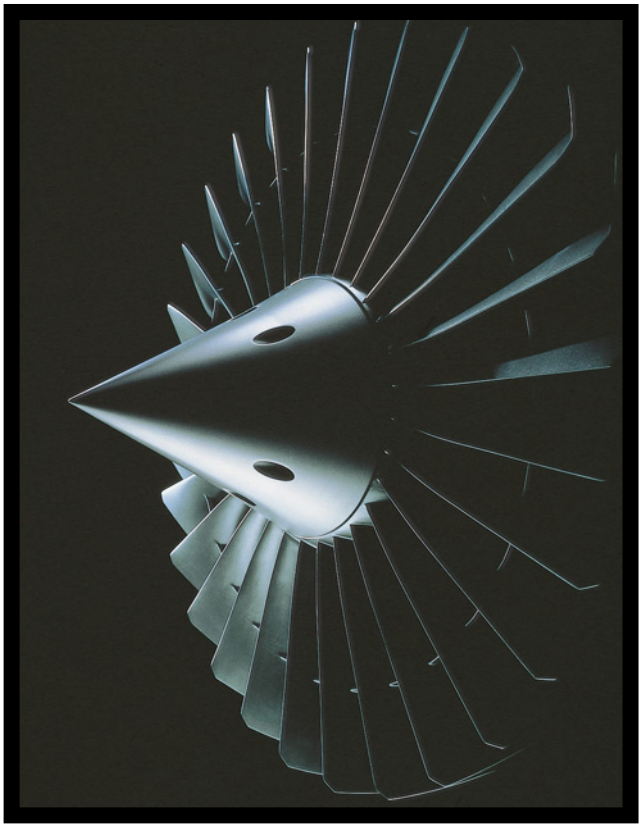
Drelloscopie®

THE UNIVERSAL STROBOSCOPE FOR MEASUREMENTS AND OBSERVATIONS.

The flashlight stroboscope DRELLOSCOP 3009 consists of a supply/control unit with digital measuring value display installed into a 1/2 19" desktop case and a separate hand lamp.

The flash sequence is controlled either internally by manual setting or externally by electric pulses starting from 500 mV, or by optional pulse generators.

In case of external control the flash sequence can be triggered with a delay with digital display of the delay angle. In addition to the function "PHASE" (image shifting) a slow-motion dis-play of the object movement is provided by the function "SLOW MOTION". Under this function the duration of a movement cycle is displayed digitally. The system is supplied either exclusively from the mains power supply system or, as an option, either from a 12 V battery or from the mains power supply system using a power supply unit. Instead of the hand lamp that is included in the standard scope of delivery, lamps for special applications are also available.



Vibration observation on a turbine

ROTATION SPEED MEASUREMENT AND VIBRATION OBSERVATION.

For non-contact measurements of rotating and vibration speeds and to observe fast periodic and quasi-periodic movements the flashlight stroboscope DRELLOSCOP 3009 can be used universally.

Major fields of application:

- **Electrical engineering and electrical craft and trade**
- **Automotive engineering, especially for engine development**
- **Research, development, and university applications**
- **Vibration analysis**
- **Improvement of fast manufacturing processes.**

High illumination power for use in bright rooms.

Fast measuring data collection with a high degree of precision and resolution by 16 bit microcontroller.

Solid shielded design
for industrial heavy-duty applications.

Choice of mains power supply
or combined 12 V battery/mains supply
from a power supply unit.

Two years warranty (except flashtubes).

FLASHLIGHT STROBOSCOPE DRELLOSCOP 3009

Drelloscopie®

FOR ALL THOSE WHO NEED TO KNOW THE DETAILS.

Technical specification.

■ Flash sequence control: *internal by microcontroller; can be adjusted with a rotary knob; external either by positive pulses from 0.5 V ... 30 V_p pulse-interval ratio ≤ 1:1, by sine voltage from 1 V ... 60 V_{pp}, by reflex light barrier, proximity switches, closing contact. Additional control via photocoupler; electronic phase shifter for image shifting from 0 ... 360°. In case of internal and external control: object movement either as if it stood virtually still, or continuously revolving (slow motion) with adjustable revolution time.*

■ Flash sequence range: *in case of internal control: 30... 25,000 min^{-1} or 0.5 ... 416 s^{-1}; in case of external control 30 ... 25,000 min^{-1} or 0.5 ... 416 s^{-1}.*

■ Measuring value display: *5 decades, 7 segment LEDs, 12 mm high, red, floating decimal point, display in case of internal and external control either in min^{-1}, s^{-1}, or degrees.*

■ Resolution: *five digits; angle display better than 0.1°*

■ Precision of measuring basis: *0.001% (quartz time basis).*

■ Lamp: *hand lamp HL 4090 with spiral cable and plug, length max. 2.5 m, reflector head with dispersion disk swiveling 90°, toggle switch to switch the flashtube on and off, tripod thread, quartz glass flashtube, plug-in type.*

■ Illumination power: *approx. 3,000 lux, automatic adjustment over the entire flash sequence range.*

■ Illuminated surface area: *approx. 150 mm diameter at 0.5 m distance.*

■ Flash energy: *max. 0.35 joule/flash depending on the adjusted flash sequence range.*

■ Flash half-intensity width: *approx. 10 µs.*

■ Pulse output port: *12 V positive, needle shaped; interior resistance approx. 1 kOhm.*

■ Supply voltage: *design 01: 230 V (+10%/-15%); 40-60 Hz; design 02: 115 V (+10%/-15%), 40-60 Hz; design 03: 115 V/230 V via power supply unit and 12 V DC.*

■ Power consumption: *max. 50 W*

■ Fuses: *safety fuse; in addition thermal excess-current release, effective in case of mains connection*

■ Admissible ambient temperature (operation): *0°C ... +50°C.*

■ Admissible storage temperature: *-20°C ... +70°C.*

■ Case: *light-metal, service-friendly half-shell design with handles, 1/2 19" standard case.*

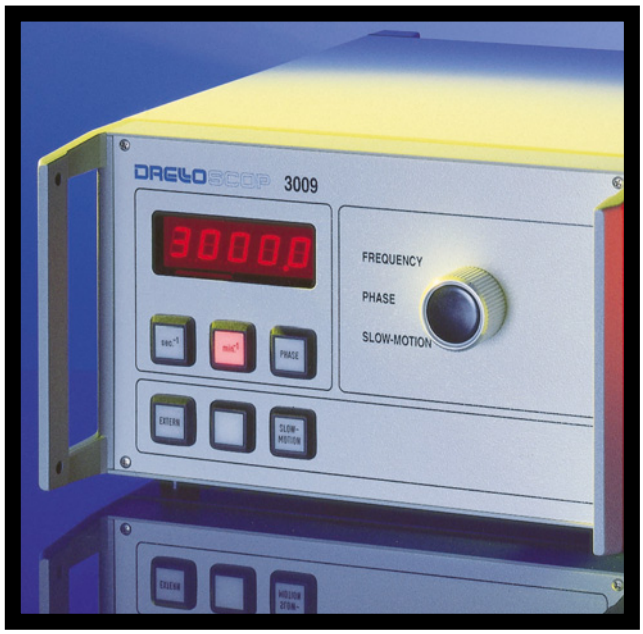
■ Dimensions/weight: *width=235 mm, height=133 mm, length=240 mm/5.8 kg (mains power supply); approx. 4 kg (mains-battery operation).*

■ Accessories: *hand lamp HL 4090 with quartz glass flashtube.*

■ Recommended accessories: *spare flashtube; battery operation: battery 12 V, 10 Ah with 0.5 m connecting cable and plug, in carrying case, dimensions: width=175 mm, height=135 mm, length=115 mm, weight: 3.8 kg; charger: dimensions: width=90 mm, height=70 mm, length=150 mm; weight: 0.9 kg; for mains-battery operation: power supply unit.*

■ Options: *stand-up handle; lamps: wide-illumination lamp LE 4052/10, point flashlamp PL 1001/10, ex-protected lamp LE 4072/10, splash-water protected lamp HL 4036/10; pulse generators: reflex light barrier LS 5016/8-L, proximity switches; NJ2/8-L and NJ5/8-L; carrying case; tripod.*

Hand lamp HL 4090



DRELLOSCOP 3009; power-light flashes for exact measuring data

Options specifically tailored to your preferences.

■ RS 232 interface.
■ Divider for external synchronization.
■ External synchronization and flash sequence range for internal and external control can be modified according to customer preferences.
■ Analog output port 0.1 ... 10 V for plotter connection.
■ Standard lamp with UV adapter.

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CHECKING IS O.K. WITH DRELLO IT'S EASIER.

www.drello.de

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