



Visual display and analysis of the resonance characteristics of drive units and exhaust systems for automobiles with the DRELLOSCOP 3020 on oscillation test stands in the Porsche laboratory for acoustics and oscillations.

Visual vibration analysis with maximum light intensity.

The DRELLOSCOP 3020 with separate hand lamp offers maximum flash intensity for large area illumination.

Applications:

- Contactless speed measurement
- Display of mechanical movements and vibrations in an apparent standstill or in slow motion
- Vibration analysis of drive units and exhaust systems in the automobile development
- Analysis of kinematical processes in machine construction/drive engineering
- Investigations of cavitation in hydromechanics

DRELLOSCOP 3020. Maximum light intensity for large areas. Universally applicable for observation and measurement.

DRELLOSCOP 3020

Highest light intensity

For illumination of large objects

Universally applicable in development

Especially for vibration analysis

Flash energy automatically adaptable to different flash frequency ranges, or manually adjustable.

Two years guarantee (except flash tubes)

+ Maximum light intensity for large area illumination

Supply/control unit with digital display for connection of a separate hand lamp

+ Automatic adjustment of flash energy

to different flash frequencies to protect the high-duty quartz-glass flash tube and the supply unit

+ Manual adjustment of flash energy

for short-time increasing of the flash intensity

+ Control of the flash frequency

external control through electric pulses from 500mV already or through available pulse generators or optionally internal control through manual adjustment

+ Slow motion display of object movement

either through electronic image shifting or through display of the object movement in slow motion

+ Hand lamp belongs to standard delivery scope

splash-proof and dust-proof lamps on request

Options as per your special needs:

+ DRELLOSCOP 3018

light intensity as with DRELLOSCOP 3020

+ External control

without digital display

+ Remote control unit

through separate control unit

+ RS 232 Interface

+ Flash frequency range modifiable

+ Lamp with UV adapter

+ Synchronisation through video camera

+ Single flash release

with direct release, or in phase with control pulse



DRELLOSCOP 3020 with 3 lamps
HL 4037 (standard), LE 4040, LE 4047
Dust- and water-proof lamps
optionally available

For all, who need to know the details

The technical data

- **Control of flash frequency**
Internal control through micro-controller, adjustable through rotary button.
External control selectively through positive pulses from 0.5V...30Vp, pulse interval ratio $\leq 1:1$, through sine voltage from 1V...60Vpp, through reflective light screen, proximity switches or closing contact. Additional control via optocoupling, electronic phase shifter for image shifting 0...360°.
At internal and external control movement of the object either as apparent standstill or continuously moving (slow motion) with adjustable time of circulation.
- **Range of flash frequency**
Internal control:
30...25;000 min⁻¹ or 0.5...416s⁻¹
- External control:
30...25,000 min⁻¹ or 0.5...416s⁻¹
- **Digital display**
5 decades, 7 segment LEDs, 12 mm high, red, floating point, display with internal and external control either in min⁻¹, s⁻¹ or degrees
- **Resolution**
5 digits, angle display better 0.1°
- **Accuracy of the time base:**
0.001% (quartz time base)
- **Lamp**
Hand lamp HL 4037 with reflector, connection cable and plug, 6 m long. On/off switch for flash tube, tripod thread, plug-in type quartz flash tube
- **Light intensity**
> 10,000 Lux, depending on distance to the object
- **Illuminated area**
approx. 3000 mm diameter at 2 m distance
- **Flash energy**
max. 7.5 Joule/flash, automatic adjustment over the entire flash frequency range
- **Half width of the flash**
approx. 10...25µs
- **Pulse output**
12V positive needle-shaped pulses, internal resistance approx. 1kOhm
- **Supply voltage**
Version 01:
230V (+10%/-15%), 40-60 Hz
Version 02:
115V (+10%/-15%), 40-60 Hz
- **Fuses**
Safety fuse and electronic high voltage fuse
- **Permissible ambient temperature (operation):** 0°...+50°C
- **Permissible storage temperature**
-20°C...+70°C
- **Housing**
light metal housing, service-friendly half shell design with handles, 19" standard housing
- **Dimensions/weight (WxHxD)**
450x133x375 mm (with handle)/17 kg
- **Accessories (standard)**
hand lamp HL4037 with reflector and quartz flash tube
- **Available supplements**
Lamps: splash-proof lamp LE4040, wide beaming splash-proof lamp LE4047.
Pulse generators: reflection light screen LS 5020/8-L, proximity switches NJ2/8-L and NJ5/8-L.
Transit case, tripod

Dimensional drawings and additional technical specification data are available on request.