EIFFAGE
DYNAE

> Accelerometer

Premium
Model DYlab - XXX

> Applications

The DYLab family of products is dedicated to precision measurements in a laboratory or on site, with optimum metrological qualities, thanks to ring shear technology. The double insulation with an external Faraday cage avoids interference.

> Main characteristics

- Ring shear mode
- ICP® / IEPE® integrated electronics
- Double insulation with external Faraday cage

Connector : M12, glass sealing

Sensor fixing :
UNF 1032 screw for the DYlab 1032 version

> Specifications

Dynamics (characteristic at 24°C) :

Sensitivity
10 mV/g, 100 mV/g, 500 mV/g ..... ± 5 %

Frequency response at ± 10%
10mV/g ..... 1 to 11 000 Hz
100mV/g ..... 1 to 9 000 Hz
500mV/g ..... 0.4 to 1 600 Hz

Frequency response at ± 3dB
10mV/g ..... 0.5 à 16 000 Hz
100mV/g ..... 0.5 à 14 000 Hz
500mV/g ..... 0.2 à 3 700 Hz

Rise resonance frequency
10mV/g ..... 35 KHz rated
100mV/g ..... 25 KHz rated
500mV/g ..... 16 KHz rated

Measuring range
10mV/g ..... 500 g peak
100mV/g ..... 80 g peak
500mV/g ..... 10 g peak

Cross sensitivity (20Hz, 5g) ..... <5%

Linearity ..... ± 1 % max

Start-up time (typical)
10mV/g et 100mV/g ..... <1sec
500mV/g ..... <10sec

Electrical :

Grounding ..... Insulated from the erection surface
Insulation (Housing and Faraday cage) ..... 100 MΩ min
DC output voltage, at 4mA ..... 12 VDC

Residual noise (24°C)
- 10mV/g and 100mV/g
  1 Hz to 25 kHz ..... 300 µg rms
  1 Hz ..... 30 µg
- 500mV/g
  1 Hz ..... 25 µg rms
  1 Hz ..... 2.4 µg

Power supply :
Constant current ..... +2 to +10mA DC
Current source voltage ..... +22 to +28 VDC

Protection
Overvoltage ..... Yes
Polarity reversal ..... Yes

Temperature
In continuous operation
10mV/g and 100mV/g ..... -55 to 120°C
500mV/g ..... -55 to 90°C

Humidity / Enclosure
Insensitive, hermetic glass sealing

Max. acceleration
Shock ..... 5 000g peak
Vibration continue ..... 500g peak

Mean Time Between Failures (MTBF) ..... 10 years

Electrostatic discharge protection ..... > 40 V

Physical :

Dimensions ..... Hex. = 19 mm H = 40.6mm

Design ..... Ring shear

Ground
10mV/g ..... 34 gr rated
100mV/g ..... 39 gr rated
500mV/g ..... 44 gr rated

Connector ..... M12 glass sealing

Material ... AISI 316L, DIN 1.4435 (Stainless steel)

Tightening torque (M6) ..... 2.4 N.m
Calibration ..... carried out under 5g at 160 Hz

DYNAE
> Vibratory analysis
> Electrical analysis
> Infrared thermography
> Instrumentation and sensors
> Software
> Training

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