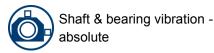




FEATURES

- Frequency response down to 10Hz
- · Models for horizontal and vertical mounting positon
- Stainless steel body
- Passive sensor, no supply voltage needed

Monitoring solution



Typical applications



Hydrogenerators



Pumps, fan, cooling tow-



Gas & steam turbines



LVS-101 M3 model

DESCRIPTION

The LVS-100 and LVS-200 velocity sensors have been designed for low frequency vibration monitoring applications of rotating machines. More specifically, the sensors fulfil the special low frequency requirements of low speed hydroelectric machines.

The LVS sensors operate in accordance with the electrodynamic principle and are used for measuring the bearing absolute vibration of the machines.

The sensing element of the sensor is a coil supported by high precision springs moving around a permanent magnet which produces a voltage directly proportional to the vibration velocity. By design, the sensor has an excellent sensitivity and linearity down to very low vibration levels. Horizontal and vertical model of sensors are available.

The sensor is a passive element and doesn't need any external power supply



GLOBAL SPECIFICATIONS

OPERATION

Measuring principle and parameter Electrodynamic vibration velocity

Sensitivity 100mV/mm/s ±10%; calibrated at 80Hz

Transverse sensitivity < 7% max. of nominal Maximum displacement 1.8mm peak-peak

Natural frequency 8Hz ±0.75Hz of measuring element

Output

 $\begin{array}{ll} \text{Impedance} & 4k\Omega \\ \\ \text{Maximum output voltage} & 5\text{V peak} \end{array}$

Typical frequency response 10Hz to 2kHz (< -3dB)

Pin out Brown: signal(+); White: signal(-); Clear: shield

ENVIRONMENTAL

Temperature range

Operation -20° to $+80^{\circ}$ C Non-destructive (short time) -40° to $+100^{\circ}$ C

Humidity resistant to 100% RH

Acceleration limit

Shock 50g Continuous vibration 5g

EMC acc. to EN 61326-2-3:2006

Fluid compatibility withstands contact with water, oil, solvents

Ingress Protection IP68 as per DIN 40 050

PHYSICAL

Sensor dimensions [mm] ø42 x 75

Body material Stainless steel 1.4301

Weight (without cable) 400g

Integral cable ø5 cable protected by ø10 flexible metal conduit covered by

PVC IP68



ORDERING INFORMATION

Part type Stainless steel velocity sensor with integral cable

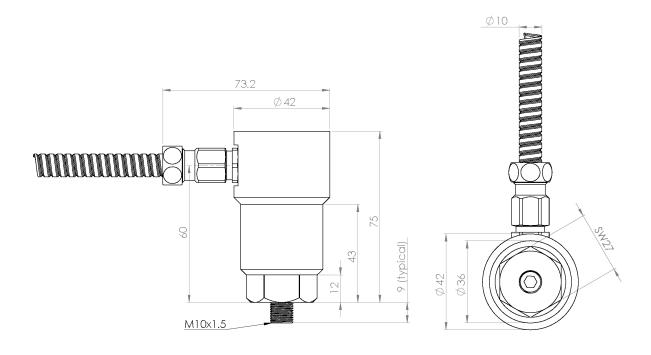
Ordering code 05.X00.000 L

X - mounting position1 Horizontal (LVS-100)2 Vertical (LVS-200

L - integral cable length

5m 10m

MECHANICAL DRAWING



Due to the continual development of our products we reserve the right to modify the specifications without notification

MC-monitoring Quality certifications



LOCAL REPRESENTATIVE

MC-monitoring SA

Route André Piller 19 | PO BOX 97 CH-1762 Givisiez | Switzerland Phone: +41 58 411 54 00 Fax: +41 58 411 54 10 Mail: info@mc-monitoring.com

Mail: info@mc-monitoring.com sales@mc-monitoring.com

Web: <u>mc-monitoring.com</u>