

Absolute vibration two channel monitor type VC12S2

Application

Dedicated for use in on-line rotating machines bearing absolute vibration monitoring such as compressors, fans, pumps, motors .

It can be used for :

- Vibration data visualization and recording using standard dc output
- For diagnostic purposes using the ac vibration sensor signal accessible at the BNC socket

Description

The monitor is made in ABS rail mounted housing of dimensions 55mm -width, 75mm - height, 125mm - depth, ready to mount on TS35 rail. It is two-channel device with dc voltage and dc current output . The buffered raw sensor signal is accessible at the front side on BNC socket.

The unit cooperates with two piezoelectric vibration acceleration or velocity sensors with built-in two-wire current supply preamplifier (IEPE standard) or with electro-dynamic vibration velocity sensor .

The measured quantity is RMS value of vibration velocity or vibration acceleration what is settled by measuring range choice in ordering process. There are four ranges for velocity and two ranges for acceleration. In one unit execution two ranges can be calibrated that can be changed by jumper position accessible through the window in the top enclosure wall. The possible ranges pairs are : 10 and 20 mm/s or 15 and 30 mm/s or 100 and 500 m/s². When ordered one range, the second will be added automatically. The five band-pass filters with roll-of rate of 24 decibels per octave are accessible, the chosen one should be ordered.

Performances

Inputs: two vibration piezoelectric sensors with built-in two-wire current supply preamplifier , powered from dc constant current source 2-10mA/18-30VDC or two electro-dynamic vibration velocity sensors

Outputs :

- two dc currents 4...20mA, Rload <500Ω
- two dc voltages 0...2V, Rload >10kΩ
- two raw buffered sensor voltages on BNC sockets
- two binary of OK channel status: CMOS

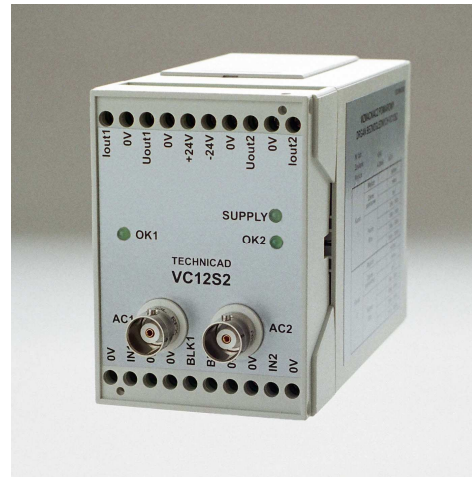
Measuring Ranges :

- for vibration velocity:
10mm/s and 20mm/s or 15mm/s and 30mm/s
- for vibration acceleration:
100m/s² and 500m/s²

Amplitude performance nonlinearity: ±1%

Frequency Range – for choice :

2Hz-1kHz , 10Hz-1kHz, 10Hz-5kHz, 1kHz-10kHz,



ELECTRICAL

Power consumption: <2W

Supply voltage: 18-36 VDC, <80mA

Galvanic isolation DC output/ power source:1,5kV

ENVIRONMENTAL

Operating temperature: -30°C do +70°C

Relative humidity: 95% non-condensing

MECHANICAL

Weight: 150g

Housing : ABS, mounted on TS 35 rail

Dimensions : 55x75x125mm

Protection : IP40

Ordering information

VC12S2- **A** □ □ - **B** □ □ - **C** □ □

Option description

A □ □ **Input sensitivity in mV/g or in mV/mm/s (both channels)**

0 1 100mV/g **0 3** 4mV/mm/s

0 2 500mV/g **0 4** 20mV/mm/s

9 9 other sensitivity, please specify in the order

B □ □ **Measuring range (both channels)**

0 1 range 0 – 10 mm/s r.m.s

0 2 range 0 – 15 mm/s r.m.s

0 3 range 0 – 20 mm/s r.m.s

0 4 range 0 – 30 mm/s r.m.s

0 5 range 0 – 100 m/s² r.m.s

0 6 range 0 – 500 m/s² r.m.s

0 7 range 0 – 100 μm p-p

0 8 range 0 – 200 μm p-p

0 9 range 0 – 400 μm p-p

9 9 other range, please specify in the order

Note: the range choice B of 07,08 lub 09 only with input sensitivity choice A of 03 or 04.

C □ □ **Frequency response (both channels)**

0 1 10Hz–1kHz **0 3** 10Hz–5kHz

0 2 2Hz–1kHz **0 4** 1kHz–10kHz

9 9 other, please specify in the purchase order