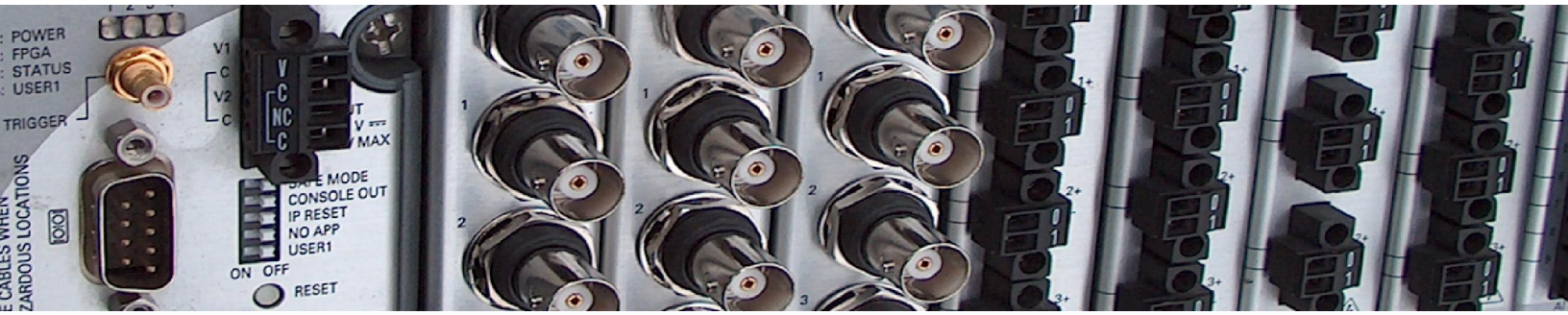


DVX-190929

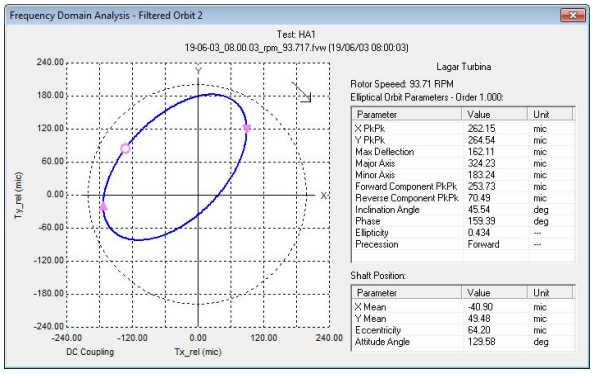
MULTI-CHANNEL VIBRATION ANALYZERS

DVX-70, DVX-80, DVX-120, DVX-121, DVX-140, DVX-160

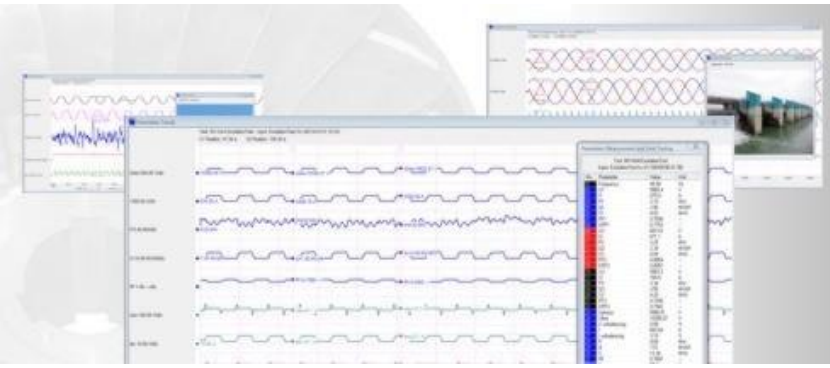
The DVX series vibration analyzers are intended for testing, monitoring and diagnosing industrial machines.
They are characterized by a high number of channels, simultaneous high speed and high resolution sampling, software selectable coupling, various types of transducers, high frequency range and Ethernet or USB communication.
The acquisition speed is programmable at the level of the whole system or at the group level of channels. Thus being available functions of advanced diagnosis of the machines with several rotors and with a varied range of speeds.
The DVX series vibration analyzers include National Instruments acquisition modules whose types, certificates and technical specifications are included in the accompanying documentation.

The acquisition, processing and analysis of data are performed using the Fastview software.

DVX-120: absolute and relative vibration analyzer



Fastview: acquisition, analysis, monitoring and diagnostic software



Specifications

- Analog inputs:
  DVX-70:
  - 3 universal inputs (absolute vibration, relative vibration, sounds, speed, voltage and current), range ± 30 V, ± 20 mA, M16 circular connector
  - 4 absolute vibration and sound inputs, ± 5 V range, BNC connector

  DVX-80:
  - 7 absolute vibration and sound inputs, ± 5 V range, BNC connector
  - 1 speed input, ± 24 V range, M8 circular connector

  DVX-120:
  - 12 universal inputs (absolute vibration, relative vibration, sounds, speed, voltage and current), range ± 30 V, ± 20 mA, 12 BNC connector, 12 M16 circular connector

  DVX-121:
  - 12 universal inputs (absolute vibration, relative vibration, sounds, speed, voltage and current), range ± 30 V, ± 20 mA, 12 BNC connector, 12 M16 circular connector

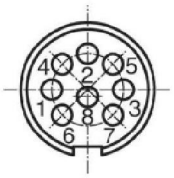
  DVX-140:
  - 6 universal inputs (absolute vibration, relative vibration, sounds, speed, voltage and current), range ± 30 V, ± 20 mA, 12 BNC connector, M16 circular connector
  - 7 absolute vibration and sound inputs, ± 5 V range, BNC connector
  - 1 speed input, ± 24 V range, M8 circular connector

  DVX-160:
  - 15 absolute vibration and sound inputs, ± 5 V range, BNC connector
  - 1 speed input, ± 24 V range, M8 circular connector
- Input coupling: AC, DC, IEPE
- ADC resolution: 24 bits
- Samplig mode: simultaneous, for the entire system or for channel groups
- Type of ADC: Delta-Sigma
- Data rate range:
  - DVX-70: 1.652 - 51.2 kS/s/Ch
  - DVX-80: 1.652 - 51.2 kS/s/Ch
  - DVX-120: 0.98 - 102.4 kS/s/Ch
  - DVX-121: 0.98 – 12.8 kS/s/Ch
  - DVX-140: 1.652 - 51.2 kS/s/Ch
  - DVX-160: 1.652 - 51.2 kS/s/Ch
- Anti-Aliasing filters: on each input, analog and digital, self-adapting to the acquisition speed
- Pass band: 0.45*data rate
- Bus connector: Ethernet
- Excitation voltage: ±24 V/ 10 W internal power supply, short-circuit protection
- Power: 85-264 Vac/47-63 Hz, 120-370 Vcc, max. 0.7 A
- Storage temperature: -30 - +70 °C
- Operatin temperature: -20 - +60 °C
- Vibration: 0.3 grms, 5 - 500 Hz, random
- Humidity: 20 - 90 %, non-condensing
- Construction: aluminum chassis, front and rear panels
- Dimensions: 230 x 167 x 105 mm

- Weight: 3.5 kg max.
- Accessories: power cable, ethernet cable 2 m, shipping case
- Fastview software with application-specific functions, installation CD, software license
- Options:
  - Piezoelectric transducers, IEPE or with external charge amplifier, for absolute vibration measurement
  - Inductive or laser transducers for relative vibration measurement
  - Microphones and ultrasonic transducers with amplitude modulation
  - Inductive or laser, speed and phase sensors
  - Current or voltage transducers
  - Magnetic mounting bases
  - Cables and connectors
  - USB interface
  - Portable computer, high performance, Windows Operating System

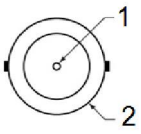
  All options are ordered as separate line items.

Circular connector pinout



6: *+24 V* internal power supply
1: *-24 V* internal power supply
4: *mA* current input
2: *VmA* voltage output
8: *AI+* noninverting analog input
5: *AI-* inverting analog input
3: *COM*
7: *COM*

BNC connector pinout



1: *AI+* noninverting analog input
2: *AI-* inverting analog input