

# VCS 400

Vibration Control System – powerful, modular, flexible



## Applications

- Vibration tests
- Modal excitation
- Quality assurance
- Environmental tests

## Fields of use

- Subsystem for automatic tests in production lines
- Mobile use in field
- Laboratory applications
- Updating of existing vibration test systems
- Customized solutions
- Tailored controller configurations for APS-shakers

## Features

- Scalable, flexible vibration control system with variable number of measurement/control channels
- Hardware base:  
**National Instruments PXI**  
reasonable price, worldwide available
- Compact hardware, suitable for industrial applications
- Controller for vibration test modes:  
sine, random, shock
- Control of acceleration, velocity, displacement, voltage, also with laser vibrometers
- Stand-alone usage without PC possible
- Remote controllable by Ethernet interface, DLL
- Measurement database
- Rich display and export options

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## Operation modes

- Sine
- Random
- Shock optional

## Application

- Providing well controlled vibration with one exciter in low frequency range
- Orientation measurement for environmental tests
- Easy and medium complex test scenarios

## Technical data

Sine	0.1 Hz ... 5 kHz (Extensions on request)
Random	1 Hz ... 5 kHz, 5,000 Lines

## Output Channels

- 2 output channels 16 bit, 10 V
- 1 control channel for 1 shaker
- 1 Monitoring channel (COLA, Freq. Monitor...)

## Input Channels

- 2 input channels 16 bit (0.2, 1, 5, 10 V) DC
- IEPE/ICP optional
- One of the two input channels is usually connected with a reference sensor at exciter thru a supply box

## Configuration

- NI PXI Real time system in flexible composition
- Connection to PC via Ethernet
- Powerful PC User Interface (National Instruments LabVIEW), extensible by customer if necessary
- Digital I/O for status, start, stop
- optional signal conditioning for charge sensors, PR sensors, capacitive sensors

## Remote control

- simple flexible remote control by DLL, Ethernet, VI or COM/DCOM

## Options

- flexible data analysis
- Complex test schedules by easy scripts inside user interface program

## Standards

- DIN EN 60068-2 Part 6, 27, 29, 64, 80