**System for early damage detection** 













**Noise & Vibration Guard NVG** 



#### What is NVG?

DeVeTec has created a complete system with Noise & Vibration Guard (NVG) for monitoring and detecting potential damage to machinery at an early stage and minimizing economic risks and consequences.

## Basic module (NVG 15.1):

- ✓ data collection of up to 15 monitored channels
- ✓ a trigger channel for speed calculation and determination of reference point
- √ four pot.-free outputs for lifebit, warning, regulated disconnection and quick-stop
- ✓ up to 15 vibration sensors
- ✓ an industrial PC(electrical control cabinet installation) with watchdog function

#### **Functions of NVG:**

- ✓ RMS (loudness) of min/max monitoring
- ✓ Amplitude of min/max monitoring
- ✓ crest factor of min/max monitoring
- ✓ triggered signal monitoring

## **Application fields:**

- ✓ combustion engine
- ✓ steam engine
- ✓ electric motor
- ✓ pump
- ✓ compressor
- ✓ generator
- gearbox
- ✓ etc.

# Advantages/Benefit of NVG: Operation/Evaluation:

- ✓ monitoring of signs of wear and tear
- ✓ early detection of potential damage
- ✓ prevention of capital loss and ✓ variable alarm and consequential damages
- ✓ optimization of maintenance costs
- ✓ data archiving
- ✓ tracking archived data through trend curves
- ✓ low acquisition costs

- ✓ comfortable self-learning function (One-Touch)
- ✓ event monitoring of time point
- switching thresholds
- ✓ trending for wear detection
- ✓ export to Excel
- ✓ extensive diagnosis possibilities







## controlling



- PLC
- engine protection switch
- process control system

# local display



#### evaluation unit

- 24/7 operation
- industrial standard
- watchdog with autoreset
- no ventilator (no dust problem)
- ethernet (profinet/modbus)

## data collection

- 24/7 operation
- industrial standard
- up to 100 kHz sampling rate (optional up to 1Mhz)
- real simultaneous sampling
- 15+1 standard channels
- modularly extensible
- decentrally applicable (e.g. WLAN)

## sensors

- robust and durable sensors from motorsport
- optional IEPE or traditional PIEZO technology
- reference trigger for determination of an "event" in time



#### **DeVeTec GmbH**

Altenkesselerstraße 17/D2 66115 Saarbrücken Tel.: +49 681 830 788 0

Fax: +49 681 830 788 12 E-Mail: info@devetec.de

www.devetec.de