Diagnostic Monitoring

From RMS to Dynamic Data - All in One Sensor

Our vibration sensors HE055 offer the comprehensive solution for monitoring and analyzing machine conditions. From simple, efficient monitoring of RMS vibration parameters to dynamic data for machine diagnostics.

Everything for precise analysis, continuous monitoring, and predictive maintenance.

Trust in innovative and future-proof technology for maximum machine performance

Main Features

- **RMS Vibration Parameters:** Variably adjustable bandpasses for precise measurement of vibration velocity and acceleration. ①
- **Bearing Condition Assessment:** Utilization of the crest value for evaluating bearing condition. ②
- **Varied Connectivity:** Analog and digital outputs for flexible applications - also usable in hybrid mode.
- **Integrated Switching Outputs:** Simple vibration monitoring and automated alarms.
- **Dynamic Data:** Recording of up to 320,000 sample values with up to 64 KHz sample rate for detailed analyses like FFTs. ③
- **BLOB Functionality:** Acyclic transmission of dynamic data over IO-Link during cyclic IO-Link operation.

Advantages

- **Multifunctionality:** Reduces the need for additional diagnostic and monitoring devices.
- **Easy Installation:** Quick commissioning and parameterization.
- **Future-proof:** Integration in into existing machine controls and transmission of smart data to higher-level systems for predictive maintenance.

Frequency Ranges

vRMS & aRMS

acc. to DIN ISO 10816

10 ... 1,000 Hz	1 ... 1,000 Hz
10 ... 500 Hz	1 ... 500 Hz
10 ... 100 Hz	1 ... 100 Hz
10 ... 50 Hz	1 ... 50 Hz

Configurable Bandpasses

①

aPeak, Bearing, Crest

acc. to DIN ISO 13373-3

10 ... 10,000 Hz

②

Dynamic Data

Filter @ Samplerate

0 ... 12,000 Hz	@ 64 kHz
0 ... 6,000 Hz	@ 32 kHz
0 ... 3,000 Hz	@ 16 kHz
0 ... 1,500 Hz	@ 8 kHz
0 ... 750 Hz	@ 4 kHz
0 ... 300 Hz	@ 2 kHz

③

Technical Data

Features	*HE055*	*HE050 (Entry-level Model)*
Vibration Parameters Cyclic Transmission of Measurement Values via IO-Link	Vibration Velocity (mm/s, RMS) Vibration Acceleration (g, RMS) Vibration Acceleration (g, peak) Temperature (°C) Crest Value (a, peak / a, RMS) Bearing Condition Value (weighted Crest)	Vibration Velocity (mm/s, RMS) Vibration Acceleration (g, RMS) Vibration Acceleration (g, peak) Temperature (°C)
Device and Diagnostic Data Acyclic Retrieval	✓	✓
Maintenance Manager	✓	✓
Transimission Rate	COM3 = 230.4 kBit/s	COM2 = 38.4 kBit/s
Dynamic Data	Recording of Raw Data: 1,000 - 320,000 sample values with up to 64 KHz sample rate	
Interfaces	Output 1: IO-Link or Switching Output Output 2: Analog or Switching Output	Output 1: IO-Link or Switching Output Output 2: Analog or Switching Output
Analog only		✓
Safety (SIL 1)		✓
Protection Class	IP66/67	IP66/67

Vibration Sensors Tailored to Your Requirements

HE05X https://hauber-elektronik.de/en/produkte/90

- IO-Link and Analog Interface
- Optional SIL1
- Bearing Condition Value
- Dynamic Data

HE10X https://hauber-elektronik.de/en/produkte/34

- Two-Wire Analog Technology
- Vibration Velocity and Temperature (HE101)
- Ex i - Intrinsically Safe
- Ex d - Flameproof Enclosure

HE20X https://hauber-elektronik.de/en/produkte/86

- Analog Output and Switching Outputs
- SIL2
- Ex d - Flameproof Enclosure
- Ex e - Increased Safety