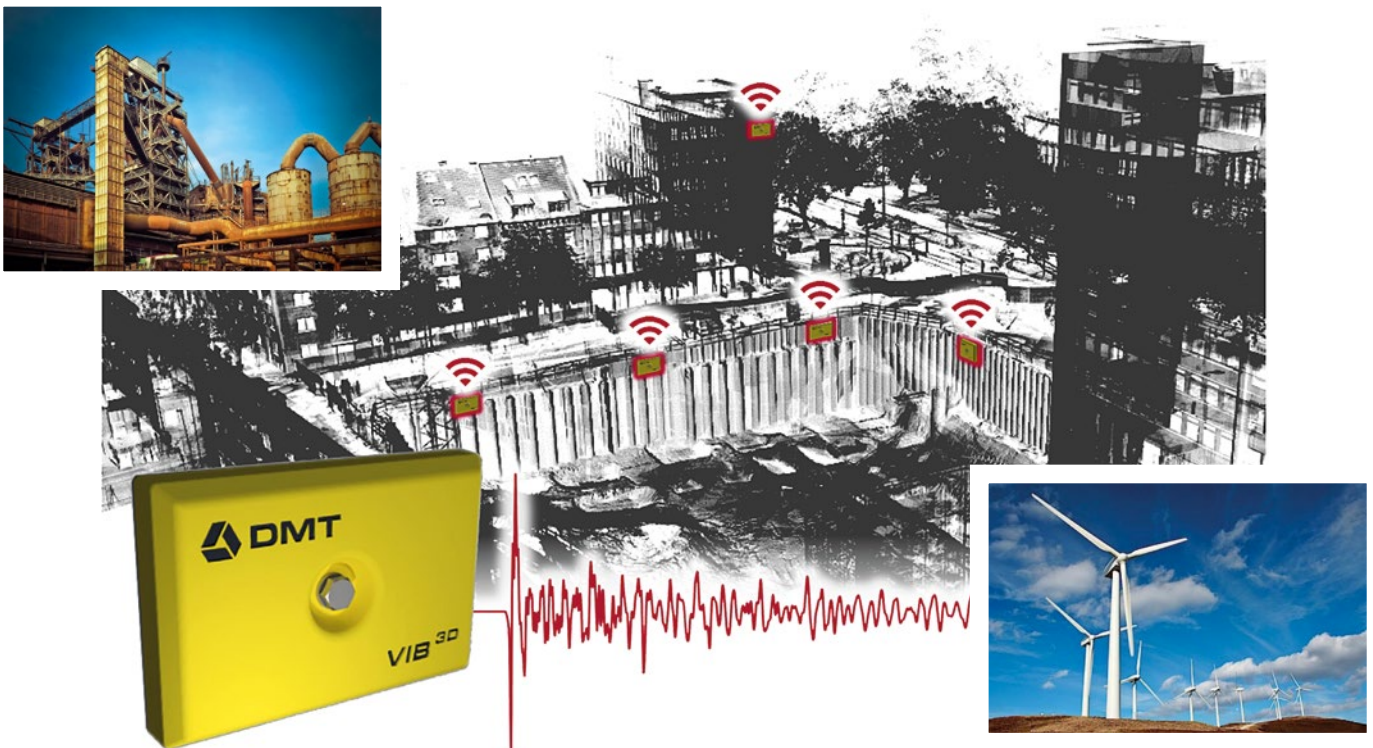# DMT VIB³ᴰ –
IOT sensor for real-time vibration monitoring

Immission control, predictive maintenance, preservation of evidence, evaluation

- Vibration and movement measurement with calibrated MEMS sensors
- Large scale digital sensor networks
- Triggered or continuous recording
- Straightforward installation supported by automatic leveling
- Data transmission by LTE / WLAN
- Network or GPS time base
- Worldwide access to the web-frontend integrated in DMT SAFEGUARD
- System for vibration analysis, automated alarm functionality and data visualization

Immission control
- Safeguarding for people, buildings and infrastructure from vibrations

Predictive maintenance
- Vibration Analysis and condition monitoring in any case of industry, machinery and working environment

Preservation of evidence
- Continuous monitoring of all vibrations
- Automated measurement and data transmission
- Long-time data storage and integrity at DMTs safeguard database

Evaluation
- Evaluation of vibrations according to international vibration monitoring standards

Technical specifications

Size	120 x 80 x 20 mm (L x W x H)
Weight	135 g (without mounting parts)
Mounting	Single mounting point in any orientation via centric mounting hole or optional tripod stand

Digitalization

Sensor Type	Triaxial MEMS accelerometer
Sampling Rate	125 Hz - 4 kHz
Recording Length	1 – 60 seconds per data file
Recording Type	Event based or continuous
Frequency Range	DC (0 Hz) to Nyquist

Signal Output

Measurement Unit	Selectable: - Acceleration [g] - Acceleration [mm/s²] - Velocity [mm/s]
Signal Transformation	Selectable: - Automatic Sensor orientation and levelling - Fixed or pre-defined sensor orientation - Dynamic DC offset removal

Data Storage	Internal SD memory for data storage in offline mode and Data buffering in online operation

Data Transmission

WLAN	IEEE 802.11b/g/n 1x1 SISO (2400 MHz –2484 MHz)
Mobile Radio	GSM/GPRS/EDGE (900 / 1800 MHz) UMTS/HSPA+ (900 / 2100 MHz) LTE (700 / 800 / 900 / 1800 / 2100 MHz)

Time Synchronization	Internal RTC / NTP / GPS
Power Supply	5V (max. 2A) Micro-USB connector

Environmental Conditions

Temperature	-25 °C - +60°C
Humidity	0 – 95 %
Casing	IP 65

Subject to technical changes

CE

DIN EN ISO **9001**
DIN EN ISO **14001**
DIN ISO **45001**