



Machine condition in all dimensions

VVB as 3-axis vibration sensor with IO-Link

- Automatic monitoring of the relevant condition indicators
- Integrated unbalance and bearing analysis
- IO-Link simplifies integration into existing control systems and IT-based maintenance planning



ifm – close to you!

Proven indicators monitored in 3 dimensions

The VVB30x continuously detects the vibrations in three measurement axes and uses them to calculate proven indicators for evaluating the machine condition. This provides the user with information on fatigue (v-RMS), mechanical friction (a-RMS), impacts (a-Peak) and bearing wear (Crest). The surface temperature is also transmitted as an additional wear indicator.

In the Basic condition monitoring version, the sensor also analyses machine unbalance and detects the machine operating hours based on the vibration level. The DataScience condition monitoring version also has the integrated option of bearing analysis BearingScout™.

Data flow towards control system and IT level

All data is transmitted simultaneously both to the control system and to the IT level via IO-Link, so that the user has all relevant indicators for IT-based condition monitoring, for example in the **moneo** IIoT platform.

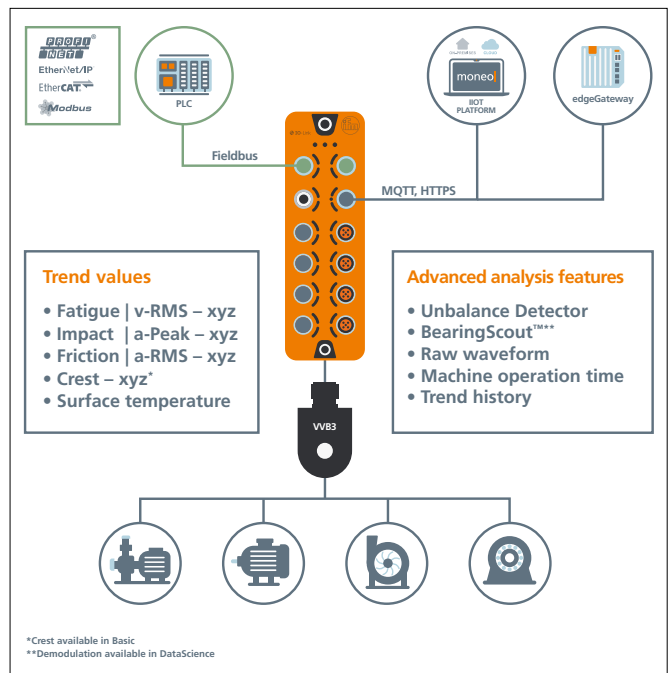
Simple limit value setting to ISO 20816-3

Setting the vibration limit values is also easy with the VVB30x: based on the ISO 20816-3 standard, the machine category can be selected and the limit values defined for this can be transferred to the sensor by system command. If a limit value is exceeded, a detailed fault analysis is easily possible thanks to the integrated BLOB ring memory. Up to 12 seconds of raw data can be provided automatically. In addition, the sensor is equipped with an internal characteristic value history that provides an overview of the last nine days.

Thanks to the VVB30x, a comprehensive vibration analysis and precise machine monitoring is easier than ever before.

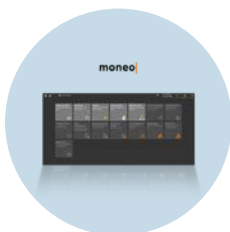
Version Condition monitoring	Units of measurement	Order no.
Basic	m/s, m/s ² , °C	VVB301
DataScience	m/s, m/s ² , °C	VVB302
Basic	mm/s, mg, °C	VVB305
DataScience	mm/s, mg, °C	VVB306

Technical data		
Frequency range	[Hz]	2...5600
Measuring range velocity	[mm/s]	0...300
Measuring range acceleration	[g]	0...16
Ambient temperature	[°C]	-30...80
Protection rating		IP67 IP68 IP69K

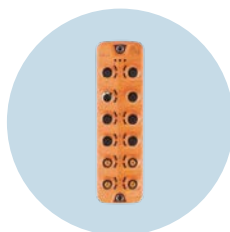


BEST FRIENDS

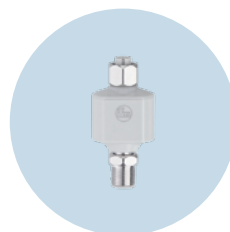
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moneo IIoT platform
Analysis software for simple condition monitoring



IO-Link masters
Field-compatible, transmits data to PLC and IT simultaneously



Bluetooth mesh
Connection to the IT level without complex wiring



For further technical details, please visit:
ifm.com/fs/VVB301