



Top product features!

- Easy-to-use sensors make vibration monitoring simple for prevention of machine downtime
- Monitoring in accordance with recognized industrial standard for machine protection (ISO 10816)
- VKV sensors combine both switching function and transmitter in one small package
- VTV transmitter is IP69K and made of 316L stainless steel for use in harsh environments
- VNB transmitters include display and provides trend history

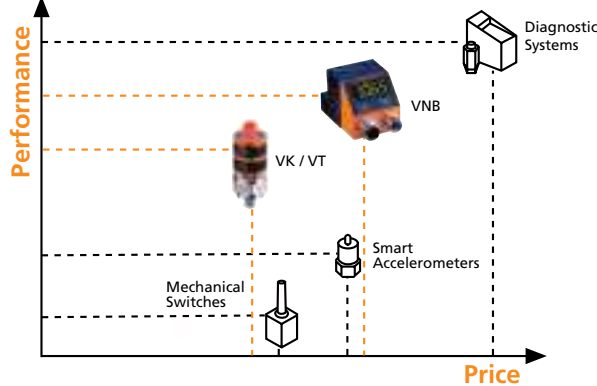
ifm's compact vibration sensors detect changing conditions of machinery for early warning of machine damage

In most industrial plants, every piece of equipment has its own vibration level that can change when it experiences unusual operating conditions. These changes can indicate potential machine damage or failure.

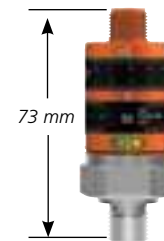
ifm's vibration sensors are designed to permanently mount on a machine to continuously monitor the machine's vibration level. By detecting vibration level changes when they first occur, these sensors can prevent equipment from catastrophically failing, reduce secondary damage and eliminate expensive downtime.

The VK, VT and VNB sensors monitor vibration levels on:

- Motors
- Pumps
- Compressors
- Fans
- Centrifuges
- Vibratory feeders



ifm's vibration sensors offer the advantages of high performance vibration monitoring devices for a fraction of the price.



VK vibration monitor

Transmitter with switching output
Setpoint via rotatable dials
Operating status LEDs



VT vibration monitor

Transmitter with time delay
Robust 316 stainless steel housing
Rated IP69K for harsh environments



NEW! VNB vibration monitor with digital display

Display shows real-time vibration level and alarm status
Memory stores time-stamped trend history
Easy setup via two pushbuttons; free software available for VNB211

IO-Link

Position Sensors

Motion Control

Vision Sensors

Company

IO-Link

Inductive

Capacitive

Cylinder / valve position

Photoelectrics / lasers / fiber optics

Distance / Application specific

Ultrasonic

Encoders / Speed monitors

2D / 3D inspection



1 - 5



6 - 21



22 - 55



56 - 61



62 - 71



72 - 111



112 - 117



118 - 119



120 - 127



128 - 143



Product + accessory selector

	Output 1	Output 2	Input	Measuring Range	Frequency Range	Measuring Principle	Part No.	List Price (1-pc.)
	PNP, N.C.	4...20 mA fixed	–	0...25 mm/s	10...1000 Hz	Vibration velocity RMS	VKV021	\$252.00
	PNP, N.C.	4...20 mA fixed	–	0...50 mm/s	10...1000 Hz	Vibration velocity RMS	VKV022	\$252.00
	–	4...20 mA fixed	–	0...25 mm/s	10...1000 Hz	Vibration velocity RMS	VTV122	\$275.00
	PNP, N.O. / N.C. or 4...20 mA scaleable	PNP, N.O. / N.C.	–	0...500 mm/s	2...1000 Hz	Vibration velocity peak or RMS (set via pushbuttons)	VNB001	\$497.00
NEW! 	PNP, N.O. / N.C. or 4...20 mA scaleable	PNP, N.O. / N.C.	0/4...20mA	0...25 g	2...6000 Hz	Vibration velocity / acceleration peak or RMS (set via pushbuttons or free software)	VNB211	\$536.00

Optional Accessories for VK and VT Sensors

Type	Description	Part No.	List Price (1-pc.)
	VK protective cover, transparent plastic	E30094	\$9.00
	Magnetic mounting base for temporary mounting, flat surface	UW0004	\$58.00
	Magnetic mounting base for temporary mounting, curved surface	F90043	\$112.00
	Glue-on base for permanent mounting	F90042	\$20.00
	Adhesive for F90042	F90037	\$45.00

Cordsets

Type	Description	Part No.	List Price (1-pc.)
	M12 Micro DC (4-pin) 2 m, PUR	EVC001	\$11.00
	M12 Micro DC (4-pin) 5 m, PUR	EVC002	\$15.00
	M12 Micro DC (4-pin) 10 m, PUR	EVC003	\$19.00
	M12 Micro DC (4-pin) 2 m, PUR	EVC004	\$11.00
	M12 Micro DC (4-pin) 5 m, PUR	EVC005	\$15.00
	M12 Micro DC (4-pin) 10 m, PUR	EVC006	\$19.00
	USB/M8 cable and history software for VNB	E30136	\$42.00

▶ Can't find the right sensor for your application, call 800-441-8246 or visit www.ifm.com/us

Technical Specs

	VKVxxx	VTV122	VNB001	VNB211
Mounting threads:	M8 x 1.25	M8 x 1.25 / UNF 1/4-28	M8 x 1	M5 / M8
Supply voltage:	18...32 VDC	9.6...32 VDC	9.6...30 VDC	9.6...30 VDC
Maximum load current:	500 mA	–	100 mA	100 mA
Current consumption:	<50 mA	–	<200 mA	<70 mA
Ambient temperature:	-13...176 °F (-25...80 °C)	-22...221 °F (-30...105 °C)	-22...140 °F (-30...60 °C)	-22...140 °F (-30...60 °C)
Accuracy:	±3% of full range	±3% of full range	±3% of measured value	±3% of measured value
Shock resistance:	400 g	400 g	100 g	50 g
Housing material:	Pocan; Makrolon; Viton; 316L stainless steel	316L stainless steel	Die-cast zinc, nickel plated	Die-cast zinc, nickel plated
Protection rating:	IP67	IP69K	IP67	IP67

Safety Technology	Process Sensors	Industrial Networks	ID Systems	Machine Condition	Power Supplies	Wiring Technology				
Safety products	Pressure	AS-i network	Safety systems	RF identification systems	Diagnostic systems	Power supplies	Cordset solutions			
144 - 155	156 - 175	176 - 191	192 - 207	208 - 225	226 - 239	240 - 251	252 - 253	254 - 259	260 - 263	264 - 277



Top product features!

- Cost-effective real-time vibration monitoring system
- Direct Ethernet connectivity for remote monitoring of machine condition
- Digital and analog alarm outputs
- Time stamped internal memory for trend history
- Easy to use configuration and analysis software



Real-time vibration monitoring

By continuously monitoring a machine's condition, unforeseen problems can be identified and addressed. Vibration analysis protects machine components, tools and workpieces during machining against costly consequential damage and avoids scrap.

ifm's multiplex vibration monitor provides specific vibration analysis on components inside a machine such as rolling element bearings, rotational unbalances, and gear drives.

The system consists of a cabinet-mount diagnostic module, model VSE, and multiple compact accelerometers that are mounted permanently on the equipment.

The condition of the equipment is continually monitored and evaluated for any changes in the operating parameters. Time and frequency domain data is locally processed for triggering of the integrated programmable analog and digital outputs, or for transmission to SCADA systems via the integrated Ethernet communication port.

Programming of the monitor is straightforward with the user-friendly configuration software.

Analysis tools included in the programming software give you the ability to remotely evaluate machine conditions. For example: the green / yellow / red damage level screen allows for a quick check on monitored components condition.



Pumps, blowers, ventilators, and cooling towers are monitored for unbalance, bearing damage, and general vibration levels using the VSE Multiplex system.





Accelerometers type VSA are connected to VSE units to monitor critical components of the process (pumps, motors, agitators).

Company	IO-Link	Position Sensors				Motion Control			Vision Sensors
	IO-Link	Inductive	Capacitive	Cylinder / valve position	Photoelectrics / lasers / fiber optics	Distance / Application specific	Ultrasonic	Encoders / Speed monitors	2D / 3D inspection
1 - 5	6 - 21	22 - 55	56 - 61	62 - 71	72 - 111	112 - 117	118 - 119	120 - 127	128 - 143






Product + accessory selector




efector Octavis Diagnostic Monitors

Type	Accelerometer Channels	Frequency Range [hz]	Spectral Resolution [hz]	Diagnostic Method	Comm. Port	Switching Inputs/Outputs	Part No.	List Price (1-pc.)
	4 channels configurable IEPE/MEMS	0...10,000 Hz	Variable	FFT, envelope curve FFT, trend analysis	Ethernet	2 inputs 2 outputs	VSE002	\$705.00
	4 channels configurable IEPE/MEMS	0...10,000 Hz	Variable	FFT, envelope curve FFT, trend analysis	Ethernet	2 inputs 2 outputs 8 configurable I/O	VSE100	\$907.00

Accelerometers

Type	Frequency Range [Hz]	Mounting Thread	Operating Temperature	Part No.	List Price (1-pc.)
	0...6,000	M8	-22...257 °F (-30...125 °C)	VSA001	\$161.00
	0...10,000	M16	-22...185 °F (-30...85 °C)	VSA002	\$241.00
	0...10,000	M5	-4...176 °F (-20...80 °C)	VSA004	\$241.00
	0...10,000	M5	-4...176 °F (-20...80 °C)	VSA005	\$255.00

Accessories

Type	Description	Part No.	List Price (1-pc.)
	Ethernet crossover cable for VSE / VSA	EC2080	\$19.00
	Configuration analysis software	VES004	Downloadable*
	efector octavis OPC server software for 25...1000 connections	VOS001	\$505.00

* Visit www.ifm.com/us for downloadable software

Technical Specs Diagnostic Monitors

Supply voltage:	24 V DC
Ambient temperature:	32...158 °F (0...70 °C)
Data interface:	Ethernet TCP/IP, (10 / 100 MBits)
History function:	integrated
Counter function:	integrated
Protection rating:	IP20
Inputs:	4 vibration inputs IEPE or VSA type 2 analog inputs for speed
Outputs:	2x PNP switching for alarms or 1x PNP switching and scaleable analog
Additional I/O VSE100:	8 configurable digital I/O

Technical Specs Accelerometers

Housing material:	316L stainless steel
Measuring range:	±25 g
Resolution:	1.0 mg
Protection rating:	IP67
Protection rating:	IP67; VSA001: IP69K

Safety Technology

Process Sensors

Industrial Networks

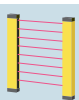
ID Systems

Machine Condition

Power Supplies

Wiring Technology

Safety products



144 - 155

Pressure



156 - 175

Flow



176 - 191

Level



192 - 207

Temperature



208 - 225

AS-i network



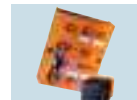
226 - 239

Safety systems



240 - 251

RF identification systems



252 - 253

Diagnostic systems



254 - 259

Power supplies



260 - 263

Cordset solutions



264 - 277

