



Condition monitoring systems

New accelerometers for your machine health



Systems for vibration monitoring and diagnostics



Piezoelectric accelerometer type VSP with IEPE interface

Wide measurement range ± 50 g

Robust designs with IP 67 or IP 68 protection rating

Also available as version for hazardous areas ATEX, IECEx

For connection to diagnostic electronics VSE



Diagnostics



IP 67



High-grade stainless steel



IP 68



Accelerometers for efficient vibration diagnostics

The acceleration signal plays an important part in the condition based monitoring of equipment and components. In contrast to other physical measurement units such as pressure and temperature it is possible to determine different characteristics which point out various symptoms (e.g. unbalance, bearing damage, cavitation, crash).

These characteristics can be evaluated and monitored in an external unit such as the ifm diagnostic electronics type VSE or other units with an IEPE (integrated electronic piezoelectric) input. IEPE is a standard interface for accelerometers and is defined using the sensitivity of the sensors, usually in mV/g (Millivolt per g, g = gravity).

The accelerometers type VSP are based on a piezoelectric measurement principle and are designed for the demanding requirements of industrial use.

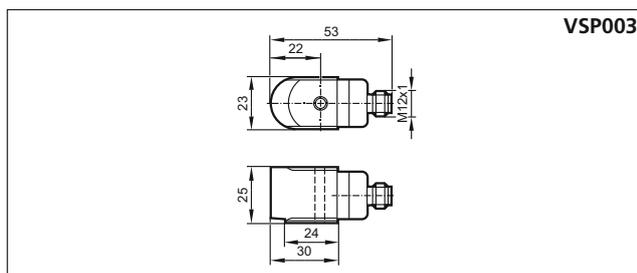


Type	Measuring range [g]	Frequency range [Hz]	Protection	Ambient temperature [°C]	ATEX / IECEx approval	Order no.
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Acceleration sensors · Measuring principle: piezoelectric

	± 50	2...10,000	IP 67	-55...125	–	VSP001
	± 50	2...10,000	IP 68	-55...90	•	VSP01A
	± 50	2...10,000	IP 68	-55...90	•	VSP02A
	± 50	2...14,000	IP 67	-55...130	–	VSP003

Dimensions

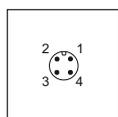


VSP003

Further technical data

Operating voltage	[V DC]	10...12
Current consumption	[mA]	0.5...8
Sensitivity	[mV/g]	100
No. measurement axes		1
Accuracy		± 5 %
Housing material		stainless steel

Wiring diagram



Pin 1: not used
Pin 2: L+ white
Pin 3: not used
Pin 4: 0 V black

Diagnostic electronics

Type	Description	Order no.
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Acceleration sensors · Diagnostic electronics for vibration sensors type VSA / VSP

	Cabinet mounting; frequency selective machine monitoring of up to 4 measurement points, Ethernet interface TCP/IP, on-board time-stamped history function, 2 switching outputs or 1 switching and 1 analogue output, counter function	VSE002
	Cabinet mounting; frequency selective machine monitoring of up to 4 measurement points; Ethernet interface TCP/IP, on-board time-stamped history function, 2 switching outputs or 1 switching and 1 analogue output, 8 further freely configurable I/O, counter function	VSE100
	Cabinet mounting; frequency selective machine monitoring of up to 4 measurement points; Ethernet interface TCP/IP, on-board time-stamped history function, 2 switching outputs or 1 switching and 1 analogue output, counter function, Profinet IO	VSE150

Accessories

Type	Description	Order no.
	Safety barrier for VSP0xA	ZB0633
	Parameter setting software	VES004
	Connection cable Ethernet cross-over patch cable 5 m, PVC cable, RJ45 plug / RJ45 plug	E30112

Connection technology

Type	Description	Order no.
	Socket M12 screened, 10 m black, PUR cable, 4-pole	EVC528
	Socket M12 screened, 20 m black, PUR cable, 5-pole	EVC629
	Socket M12 screened, 30 m black, PUR cable, 5-pole	EVC561
	Socket M12 screened, 60 m black, PUR cable, 5-pole	EVC591

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