



GAS & SPECIALTY SENSORS

VIBRATION SWITCH VK SERIES

DESCRIPTION

The **IFM Efector VK Series vibration monitor** continuously monitors HVAC and industrial equipment to prevent machine downtime and expensive downtime. The compact **VK Series** switch is designed to be permanently mounted to monitor a machine's vibration level. The monitor provides continuous feedback of vibration within a range of 10Hz to 1000Hz with a 4-20 mA analog signal. Setup is quick using two setup dials to adjust the maximum RMS velocity setpoint and response delay time. The sensor continuously monitors real-time RMS vibration velocity (based on the ISO 10816 standard) and provides an analog output of the velocity as well as a switching output when an alarm value is exceeded. Highly-visible LEDs provide local indication for power and alarm.

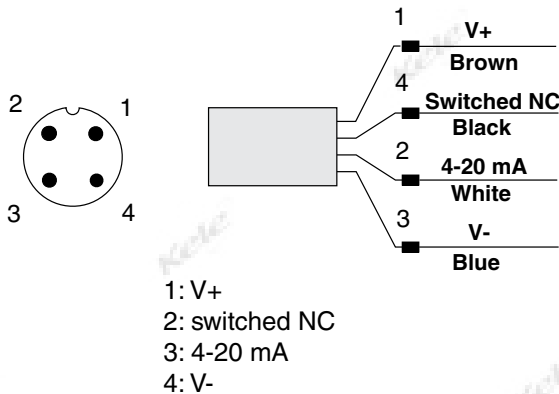


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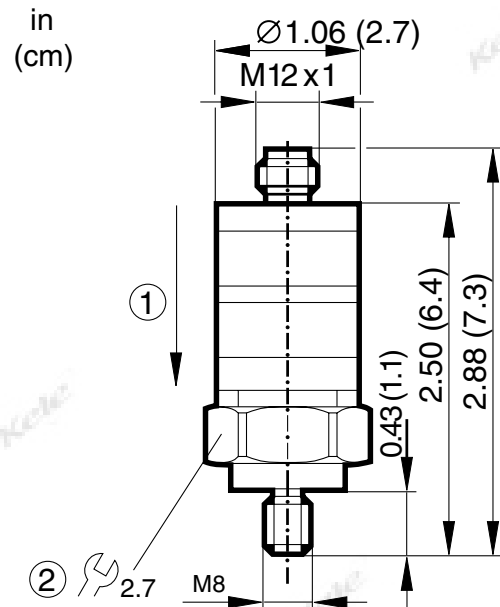
FEATURES

- Two easy to use dual setup dials
- Solid state electronics
- Analog and switched outputs
- No software needed
- Local LEDs for power and switching status

WIRING



DIMENSIONS



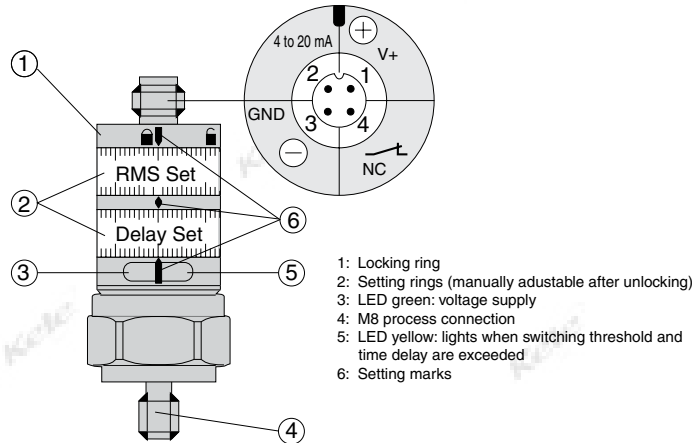
SPECIFICATIONS

Supply Voltage	18 – 32 VDC, 525 mA
Signal Output	4-20 mA
Maximum Output Impedance	500Ω
Contact Rating	0.5A DC PNP (Sourcing)
Contact Type	1 NC open collector transistor
Accuracy	
Transmitter	<±5% of full range
Switch	<±4% of full range
Linearity	<±0.25% of full range
Repeatability	<0.5% of full range
Measurement Range	
VK021	0 to 1"/second (0-25 mm/second)
VK022	0 to 2"/second (0-50 mm/second)
Frequency Range	10 Hz to 1000 Hz
Visual Indication	Power Green LED Switching status Yellow LED (Energized = Switched)

Shock	400g
Switch Adjustment	up to 50 mm/sec
Time Delay	1 to 60 seconds
Process Connection	M8 (order mounting adapter separately)
Wiring Terminations	4 pin M12 reg foot connector (order separately)
Operating Temperature	13° to 176°F (-25° to 80°C)
Enclosure Rating	PBT (Pocan); PC (Makrolon); FPM (Viton); stainless steel 316L, IP67, NEMA 1
Dimensions	1.06" diameter x 2.88"H (2.7 x 7.31 cm)
Approvals	UL File E174189, CE
Weight	1.0 lb (0.45 kg)
Warranty	2 years



SETTING / CONNECTION DIAGRAM



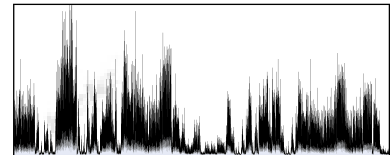
FREQUENCY DIAGRAM



Typical motor frequency



Typical bearing fault frequency



Typical harmonic frequency

10Hz

Frequency

1000Hz

ORDERING INFORMATION

MODEL	DESCRIPTION
VKV021	VK Series vibration monitor, switch point 0 to 25 mm/sec
VKV022	VK Series vibration monitor, switch point 0 to 50 mm/sec

Ordering Note: Connector and mounting required, see below

	RELATED PRODUCTS
EVC001	6' foot straight connector
EVC002	15' straight connector
EVC003	30' straight connector
EVC004	6' right-angled connector
EVC005	15' right-angled connector
EVC006	30' right-angled connector
F90037	Octavis mounting adhesive
F90042	Octavis mounting base
F90043	Octavis mounting magnet

	ACCESSORIES	PAGE
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT	995
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT	994