VS204 Smart Vibration Sensor (RS485 version)

Introductio

VS204 is the highly accurate and cost-effective machine health monitoring system. It assembles several vibration sensors with built-in intelligent computing functions, which can actively sense the health status of equipment, and transmit the computing results to the field control system via open transmission protocols.

It is a RS485, triaxial (X, Y and Z), high-bandwidth, smart vibration sensor, which can be used to obtain the vibration signal of machine.

The built-in time domain data cleaning functions can handle the monitoring and diagnosis of variable frequency rotating machine and non-rotary equipment easily.

Application

Providing signal acquisition functions of the components in high-speed rotating machine, motor, gearbox and non-rotary type equipment, such as robot and linear guide.

Model			VS204
Vibration measurement capability	Measurement direction		Triaxial (X, Y and Z)
	Amplitude		±16 g
	Sensitivity ($\pm5\%$)		0.488 mg / LSB
	Frequency response		5 - 5 kHz
	ADC resolution		16 bits
Temperature measurement capability	Measurement Range		-20°C to 85 °C
	Sensitivity ($\pm5\%$)		256 LSB/ $^{\circ}$C
	ADC resolution		16-bit
Environmental resistance	Temperture		-20°C to 85 °C
	IP grade		IP65
Power supply	Power voltage		12 to 24 VDC
	Power consumption		0.45 W
	Reverse voltage protection		V
Sampling	Sampling rate	Speed level 6th	~ 26,667 S/s (Maximum BW: 5 ...)
		Speed level 5th	~ 13,333 S/s (Maximum BW: 5 ...)
		Speed level 4th	~ 6,666 S/s (Maximum BW: 3.3 ...)
		Speed level 3rd	~ 4,444 S/s (Maximum BW: 2.2 ...)
		Speed level 2nd	~ 3,333 S/s (Maximum BW: 1.6 ...)
		Speed level 1st	~ 2,666 S/s (Maximum BW: 1.3 ...)
	Signal	Acceleration (g)	V [1*]
		Velocity (mm/s)	V [1*]
	Sampling mode	Software trigger	V [1*]
		Hardware trigger	X
	Time domain data cleaning		V
Communication	Method		RS485
	Protocol		Proprietary command
	Distance		100m
	Upload	Acceleration signal	V [1*]
		Velocity Signal	V [1*]
	Download	FOTA	V
Appearance	Dimensions		38 x 38 x 18.1 mm
	Housing material		Aluminum alloy
	Water-proof method		Seal
	Wire		Flexible, insulated, 1m
	Wire connector		Pigtail V [2*]
	LED for running status		V [3*]
	LED for communication status		V [4*]
Device Management	FOTA		V [5*]

1* Configurable through utility
2* RED: 12-24 VDC in, BLACK: GND, GREEN: A, YELLOW: B, BLUE: N/A, BROWN: N/A, Thick BLACK: Shielding 3* GREEN LED Flash
4* RED and Orange LED Flash
5* Manage through device management utility