

VW0420: Vibrating Wire Isolated Analog Interface

Description

The VW0420 provides an interface between vibrating wire instruments and factory automation systems which support 4-20 mA sensors. The vibrating wire section measures the natural frequency and temperature of the sensor. The measurements are then converted to engineering units, unit converted etc. as required, and scaled to the 4-20 mA outputs. Setup of the device is straightforward, using a Windows host program connected via USB cable.

VW0420: Vibrating Wire Isolated Analog Interface Specifications

ITEM	SPECIFICATION
Vibrating Wire Sensor Types	Piezometer, strain gauge, mini-strain gauge, displacement sensor etc.
Sweep Types	A,B,C,D,E,F, user-defined
Frequency Input	450-6000 hz
Update Rate	2 seconds
Vibrating Wire Calibration	$mX+b$, polynomial, units conversion, temperature compensation
Thermistor Types	NTC 3000, 2252, 5k, 10k, 2k RTD
Current Outputs (2)	Vibrating Wire, Thermistor
Current Output	4-20 mA nominal, isolated between channels and with respect to sensor to 2500 VAC
Vibrating Wire Conversion Base	Raw data, engineering units, temperature corrected
Vibrating Wire Conversion Base Unit	B units, kPa, psi, mH ₂ O, μ e, etc
Temperature Conversion Base	$^{\circ}$ C, $^{\circ}$ F, ohms
Current Resolution	0.002%
Current Conversion Accuracy	0.02%
Host Program PC Connection	USB 2.0, USB mini B connector
Compatible Operating Systems	Windows 10
Operating Temperature	-40 to 55 $^{\circ}$ C
Power Supply	9-24 VDC, 8-35 mA, isolated to 1000 VAC
Dimensions	3.55 x 3.62 x 0.89 in. (90 x 92x 22.5 mm)
Specifications	