

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, $\hat{\mu}$ e, etc |
| Temperature Conversion Base | $\hat{\text{A}}^{\circ}\text{C}$, $\hat{\text{A}}^{\circ}\text{F}$, 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 $\hat{\text{A}}^{\circ}\text{C}$ |
| 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 | |