



VT7S12E Dual Channel Vibration Transmitter

Compact. Advanced. Affordable

VT7S12E is the most advanced & Compact Vibration Transmitter. It accepts input directly from ICP type Accelerometer, processes the signal and gives analog output in the form of standard current or voltage; the vibration measurement range is field configurable for acceleration, velocity or displacement. The output signal is usually interfaced with PLC or DCS for monitoring and protection.

VT7S12E Transmitter has two Relay outputs per channel for Alarm, Trip. Also has additional outputs like Buffered output on BNC connector for analysis purpose, and optional RS485 serial port for direct interface with PLC, DCS or SCADA

VT7S12E is aimed for balance of plant equipments like Pumps, Motors, Fans, Blowers, etc to provide monitoring and protection, the unit Employs True-RMS and calculated RMS-Peak measurement techniques, considered best for general machine condition monitoring.

The unit can be field configured and operated by means of front keyboard and display, Relay set points and logic can be set for all application types including fail-safe operation, all configured data is stored in a non-volatile memory.

Features

- Compact DIN Rail mounting
- 4 Digit LED display for Parameter Value & 1 Digit LED display for channel no
- Dual channel (optional single channel)
- Micro Controller based
- Same model Field Configurable for Acceleration, Velocity or Displacement range
- Field configurable by front keys and display
- Transmitter/Input signal health check
- Relay for Alarms/Trip
- Serial Modbus Interface (optional)

Applications

- Balance of Plant Vibration measurement and protection
- Cooling Towers
- Pumps
- Motors
- Gear Boxes
- Blowers
- ID/ FD/ PA Fans
- Air Compressors
- Conveyors

TECHNICAL SPECIFICATIONS

Input		Relay Output		
No of Channels	Two/One (Optional)	No of Relays	4 nos (2 nos per channel)	
Input Type		Purpose	Alarm/Trip	
Accelermoter Input		Rating	2A@250VAC/30VDC & 5A@250VAC (optional)	
Type	Remote ICP piezoelectric Accelerometer	Type	C, NO, NC	
Sensitivity	100mV/g (Standard) 500mV/g (On Request)	Delay for relay	05-50 sec to avoid false tripping	
Dynamic Range	80 g pk	Communication (Isolated) - Optional		
Measurement Parameters		No of Port	1 no RS485	
Parameter	Range (Field Selectable)	Resolution	Protocol	Modbus - RTU
Acceleration	0 to 50.0g (RMS, Pk)	0.1g	Baud Rate	9600, 19200
Velocity	0 to 100.0mm/sec (RMS, Pk)	0.1mm/sec	Buffered Output (Available for Vibration input type only)	
Displacement	0 to 2000microns (Pk-Pk) [#]	1 micron	No of Output	2 nos
			Output Impedance	<100 ohms
			Frequency Range	0.5Hz to 10KHz
			Accuracy	0.25% of Full Range
Sensor Excitation current	4 mA Approx		Power Supply	
Scan Time	150 mSec/Channel		Voltage	85 to 265VAC, 50/60Hz 18 to 36VDC (optional)
Frequency Range (factory set)	High Pass: 2.5Hz, 5 Hz, 10 Hz Low Pass: 1 KHz, 2.5KHz, 10KHz		Consumption	12 VA max 85 to 265 VAC 7 VA max 18 to 36 VDC
Accuracy	±2% of full span (Input to Display)		Isolation (Withstanding voltage)	
Display & Keys			<ul style="list-style-type: none"> Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute Between primary terminals*: At least 1500 V AC for 1 minute Between secondary terminals**: At least 500 V AC for 1 minute 	
Channel number	1-Digit, 0.3", Green seven segment LED		* Primary terminals indicate power terminals and Aux Supply terminals.	
Measuring Parameter Value	4-Digit, 0.3", Red seven segment LED		** Secondary terminals indicate Communication O/P and Power O/P.	
Status LEDs	Discrete/Individual RED LEDs, 2 LEDs for Communication, 4 LEDs for Relay, 1 LED for Auto-manual and 2 for input type of channel		Insulation resistance: 20MΩ or more at 500 V DC between power terminals and grounding terminal	
Operational Keys	4 Keys (ENT, UP, DOWN & ESC)		Physical	
Output			Mounting	35mm DIN rail
Analog Output (Isolated)			Dimension (in mm)	75 (H) x 70(W) x 110 (D)
No of Outputs	One per channel 4-20mA (standard range)		Weight	350g
Output Types	Optional: 0-20mA, 1-5VDC, 0-5VDC, 0-10VDC (Factory set, any one at a time)		Wiring	Terminals for 2.5mm ² wire size
Load	500Ω Max (For current o/p) 3000Ω Min (For voltage o/p)		Enclosure material	ABS Plastic
Accuracy	±0.25% of Full Scale (Display to Output)		Protection	IP20 (except terminals)
			Environmental	
			Operating Temperature	0 to 55 °C
			Operating Humidity	30 to 95% RH (non-condensing)
			Storage Temperature	0 to 85°C
			Warm up time	15 minutes

Ordering code

Model	Channel-1	Channel-2	Power Supply	Output Type	Communication o/p
VT7S12E	X	X	X	X	X
	1	N	A	N	N
		1	B	C	1
				D	
				E	
				F	
				G	

Optional at extra cost

Compatible Sensor	
Sensor Mounting:	Stud/ Pad mounting
Sensor Type:	ICP
Sensor Output:	100mV/g