

Dual Channel Vibration Transmitter (Model VT7S12)

VT7S12



VT7S12 is Micro controller based Dual Channel Vibration Transmitter. Masibus' Model VT7S12 Vibration Transmitter is an innovative product that excites and reads signal from high temperature accelerometer and transmits overall vibration value with 4-20mA. It measures Vibration in different parameters like Acceleration, Velocity, Displacement. Measuring range is field configurable. VT7S12 is a low cost high performance two channel vibration alarm monitor in a modular format ideally suited for protection of all of your rotating machinery against costly breakdown, including turbines, motors, fans, pumps etc.

Vibration is measured in terms of r.m.s. and peak. When overall vibration is to be measured, r.m.s. and peak measurement technique is considered best for general machine health.

Vibration transmitter makes online vibration monitoring system cost-effective with its analog output which can be connected to plants instrumentation and control systems like RTU/PLC/DCS.

With its compact size and convenient DIN rail mounting, it can be fitted to the machine or remotely in equipment panels.

Machine protection is provided with VT7S12's dual adjustable alarm to automatically trip plant, or via analogue outputs applied to SCADA, DCS or other monitoring/control systems.

Features

- *Small Compact size
DIN rail mounted*
- *Digital Display*
- *Micro controller
based dual channel
Transmitter*
- *Transducer/cable
health check*
- *Easy configuration
front keys*
- *Dual Retransmission
4-20 mA output*
- *Measuring parameter:
Acceleration,
velocity,
displacement - field
configurable*
- *Relay for Alarms,
Danger*

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Advanced Automation - Sure Solutions

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HARDWARE SPECIFICATIONS VT7S12

No of Input	Two/One
Input type	Accelerometer
Mounting	Remote sensor mounting Vibration sensor is mounted on bearing (surface where vibration measurement is required) and connected to Vibration transmitter. Transmitter takes analog signal proportional to vibration range from vibration sensor. Transmitter is DIN rail.
Sensor Mounting	Stud / Pad mounting
Electrical Connection	Screw type for excitation voltage and analog output connection that can accept up to 2.5mm ² wire.
Display	4 digit, 0.3" seven segment red LED
Keys	3 keys (ENT, SEL, ESC)
Relays	Three - Alarm, Danger, Health
Calibration	Through Front Panel
I/P to Display Accuracy	± 2.0% *of full scale
Vibration Range / Mode	Acceleration: 0 to 50 g Velocity: 0 to 50.0 mm/sec Displacement: 0 to 1000um (Field configurable)
Output	4 - 20mA
Signal Transmission	Four wire system
No of Output	Two (O/P-2 is optional)
Load	750 Ohms max (for current o/p) 4000 Ohms min (for voltage o/p)
Frequency range	10Hz to 1KHz
Output Accuracy	+/- 0.25% of Full Scale
Operating Supply	18 to 30 VDC
Power Consumption	<10VA
Operating Temperature	0 to 55°C
Operating Humidity Range	40 to 95% RH (non-condensing)
Case Material	ABS plastic enclosure
Dimension	70(W) x 75(H) x 110(D) mm
Sensor Operating Temperature	- 50 to 121 °C (up to 150 °C option)
Sensor Type	PZT ceramic
Sensor Output	100mV/g

Cables

Vibration sensor cables plays an important role in online vibration monitoring and protection system. Cables with suitable connector makes installation easy and reliable. Industrial environment can be different for different plants and reliable cables are an important element to achieve best performance from machine protection system.

Masibus offers various kind of cables as per customers requirement. Selection of cable shall be done considering environmental condition.

Cable Connection	Vibration sensor is mounted on bearing and connected to transmitter unit with cable
Type of Cables	
Standard Cable	Applicable for ambient temperature with external conduit
Teflon Cable	Applicable for temperature upto 150 °C with external conduit
Armored Cable	Applicable for temperature upto 150 °C with flexible steel armor protection (no external conduit required)

ORDERING CODE VT7S12

Model	No of Channel	Measurement	Sensor Mounting
VT7S12	X	XX	X
	1 Single	OR RMS	S Stud Mounting
	2 Dual	OP Peak PP Peak to Peak	P Pad

ORDERING CODE CABLES

Model	Con. Type	Cable type	Protection	Length in mtr.	Molding
CBL	X	X	X	XX	X
	S Straight	S Standard	U Unarmored	03	Y Yes
	R Right angle	T Teflon	A Armored	05	N No
				10	
				20	
				30	

* Accuracy is 5% at input frequency greater than 800 Hz & frequency less than 20 Hz.