



Protecting Production By Monitoring Machinery

ANNOUNCING THE VTU1X-MINI-D HIGH SPEED DIGITAL SHUTDOWN SYSTEM PLUS CONDITION MONITORING

An effective high speed shutdown system that not only trips when an upset occurs but can also warn of eminent shutdown by monitoring the condition of your compressor or engine!!!

- **Simple to install:** Basic setup starts with as little as **three connections**
- **No external sensors required**
- **Simple to configure:** Windows based software allows precise settings
- **Lots of powerful options:**
 - Can warn of degrading condition before shutdown
 - On board memory allows operators to see the history of a machine's operating condition
 - Real time clock time stamps events
 - Tach input allows monitoring of variable speed machines

The VTU1X MINI-D protects and warns* equipment from the following:

- Liquid Slugs
- Loose Supports and Wedges
- Stationary Bolting Integrity
 - Frame to Foundation
 - Distance Piece to Frame
 - Cylinder to Distance Piece
 - Cylinder Supports
 - Pulsation Events
 - Piping Integrity (Bottles and Scrubbers)

*With optional second digital output

VTU1X MINI-D Specifications:

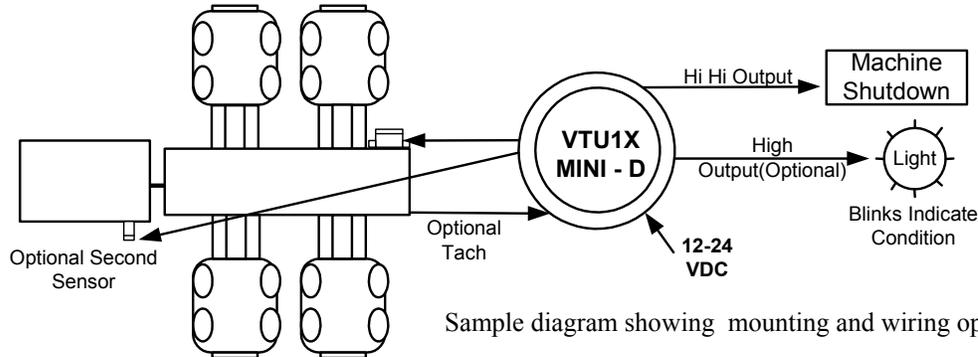
- Outputs: 1 - Digital Output
 - HH - Indicates Shutdown
- Optional second output. Blink rate increases with percent to shutdown
- Optional second input
- Update Rate: (depends on RPM)
 - Partial-Under 4 revolutions
 - Full-Under 8 revolutions
- RPM Range: 300 - 3600
- Speed Variance Without Tach: +/- 10%
- Optional: Tach input
- Memory: Up to 2 years
- Voltage: 12 - 24VDC, < 1 Watt
- Class 1 Div 1 Approvals: **FM**

**RIOTECH
INSTRUMENTS LLLP**

27326 Robinson Rd STE 225
The Woodlands, TX 77385

Phone: 281-292-9051
Email: sales@riotechinst.com
Web: www.riotechinst.com

VTU1X MINI-D not only gives high speed protection for compressors and engines but also has options which can indicate your equipment **approaching** shutdown**Without using analog inputs**. The **MINI-D** monitors engines and compressors for **catastrophic events** such as condensate slugs and broken bolts, responding in as fast as 4 rotations.



More than a simple shutdown system:

While having digital outputs, the **VTU1X MINI-D** does more than watch for catastrophic failures, it monitors for changes over time. This information can be stored and retrieved for comparative analysis or used to drive a warning light which indicates worsening conditions. This **allows regular maintenance personnel to easily report on changes to equipment condition**. There is even an option to use the **VTU1X MINI-D** as an O-Scope, a feature not found with any other recip shutdown or monitoring system.

Blinking Lights and Machine Condition: With optional 2nd output, the **VTU MINI-D** will pulse a warning light every two seconds to indicate vibration levels have exceeded the normal running vibration level but is not yet at the shutdown level

- **1 Blink** - Vibrations above high alarm
- **2 Blinks** - 25% of normal running and shutdown
- **3 Blinks** - Vibrations above 50% of normal running and shutdown
- **4 Blinks** - Vibrations above 75% of normal running and shutdown



VTU1X-MINI-D
In Explosion Proof Enclosure

VTU1X Ordering Options

VTU1X-MINI-D: Single sensor with one digital output for shutdown

- **-2D:** Second digital output for indicating condition>
- **-M:** Onboard memory allows analyst to see historical vibration levels. Great for tracking condensate slugs or rate of change in condition.
- **-TD:** Digital tach input, when machine speed varies more than +/-10%. (Sensor not supplied)
- **-TA:** 4-20mA, analog tach input for machines that vary speed more than +/-10%.
- **-RD:** Raw vibration output. Used with analyst toolkit
- **-MB5:** Modbus over RS485

Software Options

VTU-CF: Configuration Software for all VTU1X products

- **-AT:** Analyst Toolkit Option, allows analyst to view FFT and time waveforms of

For more information about the Riotech Instruments reciprocating monitoring units as well as other condition monitoring products contact:

For Information and Technical Support:

Frank Fifer
Phone: 281-992-5824
Cell: 832-274-9396

For Sales:

Riotech Instruments
Phone: 281-292-9051
Cell: 832-443-6808