

VDX500 Vibraton Switch with Local Indication

Features

- 3 in 1 - Vibration Transmitter - Switch - Display
- Bright 3 digit LED display
- Vibration range available up to 2 in/s RMS
- Vibration Units: mm/s, in/s and % percentage
- 2x SPDT Programmable Relay with independent time delays and 4...20mA (non isolated) analog output
- Easy configuration from front keys
- Set and Reset value switch with both time delay Set
- Enclosure Rating for Exd Proof



Overview

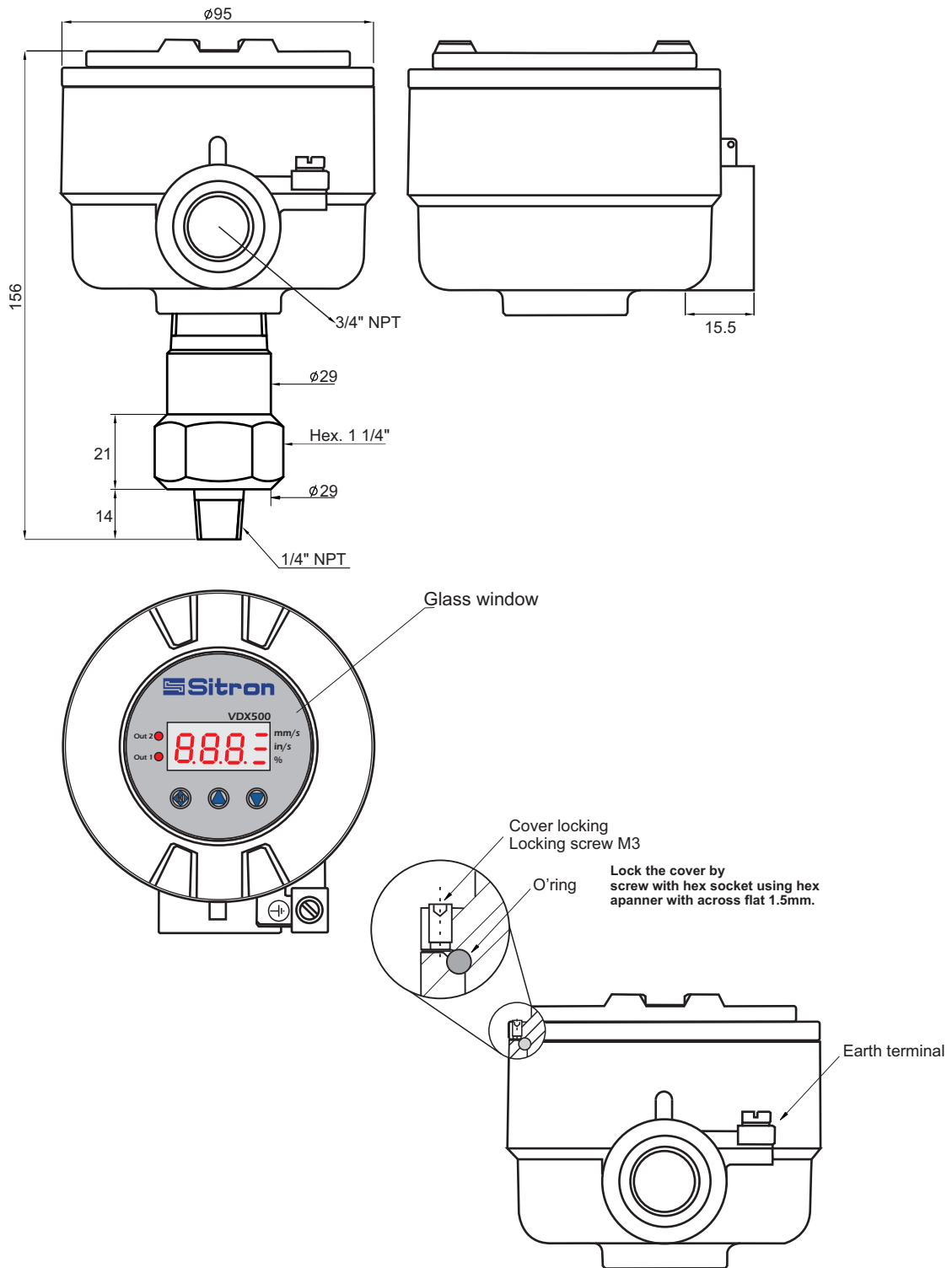
The **VDX500** Vibration Transmitter and Switch is able to monitor the amount of vibration for all types of rotating machinery such fans, pumps, motors and other industrial machines. It measures the vibration to which it is exposed and offers two independent SPDT relay outputs (each with independent time delay and on/off control) when vibration exceeds the preset values so that the equipment it is monitoring can be repaired before extensive damage and more costly repairs are required. This is referred to as Early Fault Detection.

The **VDX500** is well equipped for rotating machine protection applications. It has a bright 3 digit display with unit markings in mm/s, in/s, percentage %, a 4...20mA analog (non isolated) output and 2 independent SPDT relay outputs with LED status indicator per alarm. Set point and Reset point setting for both relay outputs as well as an independent time delay for each switch) is user configurable. Also, the user can configure the unit of measurement shown in the display. Vibration is monitored in r.m.s. (root mean squared), a technique considered best for general machine health.

The **VDX500** makes online vibration monitoring cost-effective with its optional analog output retransmission which can be connected to a PLC, DCS or other industrial control equipment.

rev: 05/2019

Dimensions (mm)



Overview

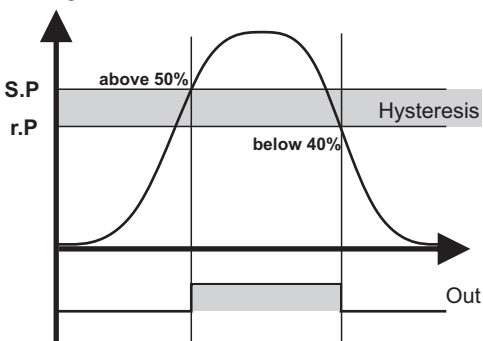


Special Functions

- 3 types of special units for vibration measurement configurable in mm / s (millimeters per second RMS), In / s (RMS per second), % (Percentage for external 4...20mA).
- Individual set-point and reset-point adjustment of the 2 outputs in 0 ~ 100% of the value read in the Display
- Individual Delay setting for each output from 0 to 100 seconds.
- ON / OFF function to enable or disable any output that is not being used.
- 2 individual LEDs for indication of outputs Out 1 and Out 2.
- 20mA offset for fine adjustment of output current. (This current is already factory calibrated with an input impedance of 250 Ohms).

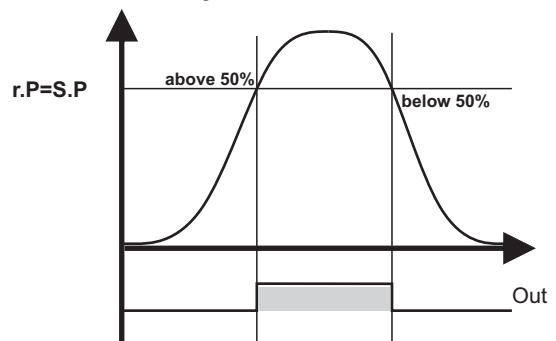
Programmable Output State

Hysteresis



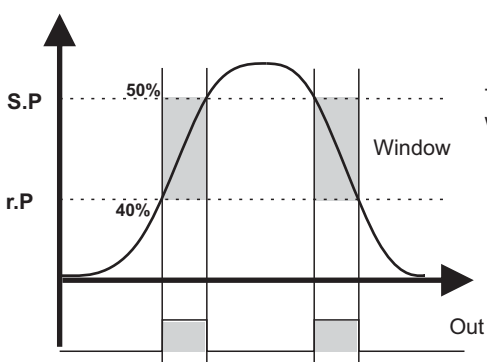
Time delay, when adjusted, will actuate above S.P and Down r.P

None Hysteresis



Time delay, when adjusted, will actuate above S.P and Down r.P

Window

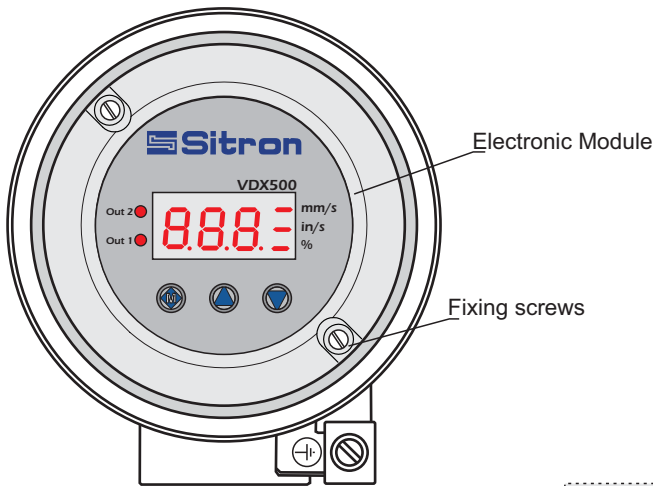


Time delay, when adjusted, will actuate above S.P and above r.P

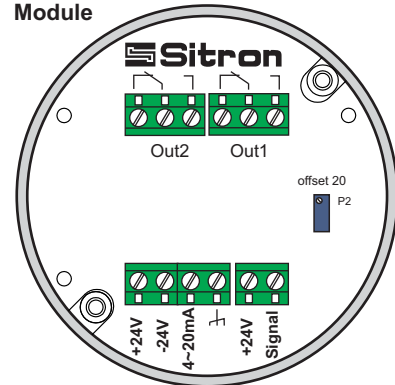
Wiring Diagram

Procedures for electrical connection

- Remove the cover and loosen the screws of the electronic module
- Remove the electronics module with care.
The connections are on the back of the module

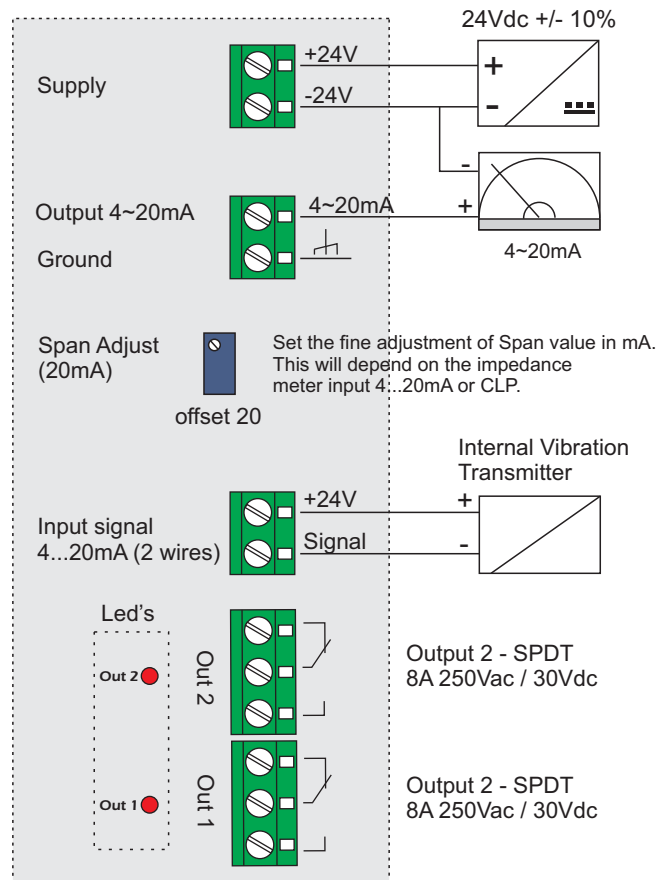
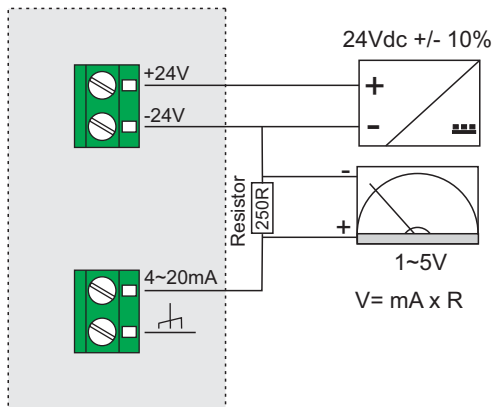


Electrical Connections are located on the back of the Module



Cable specifications
Cable Type: 9-way + ground shielded cable

Others Connections 1-5V Output



Technical Specifications

VDX500

Applications:	Monitor misalignment and unbalance on rotating machines
Power Supply:	24Vdc +/- 10%
Output:	2 x SPDT (5A / 250Vac) + 4...20mA (3 wires)
Consumption:	<100mA
Accuracy:	Output 4...20mA (error +/- 0.5% F.S)
Settings:	Time Delay / Alarm Setpoint
Indication:	Display 7 seg + Led's
Accuracy Display:	+/- 1% (0.16mA)
Vibration Ranges:	0.5 / 1 / 2 in/s RMS
Frequency range:	40Hz to 1000Hz
Type of sensor:	1 Axis Accelerometer
Housing Material:	Aluminum with Blue Polyester Paint / Glass window
Temperature range:	-10...70°C
Process connection:	Thread or Fixing Nut
Electrical connection:	3/4" NPT Cable Gland
Class Protection:	IP66
Body Material:	316 stainless steel
Protections:	Polarity Inversion and Voltage Surges
Enclosure Rating:	EN 60079-0 / EN 60079-1 / EN 60079-31 / IEC 60079-0 / IEC 60079-0 / IEC 60079-31 IECx: Ex db IIC Gb (Zone 1 and Zone 2) / Ex tb IIIC Db (Zone 21 and Zone 22)

Order Code

MODELS	
VDX500	Vibration Transmitter & Switch w/ Local Programmable Indicator
SIZE OF CONNECTION CONNECTION	
1	1/4" BSW
2	3/8"
3	1/2"
X	Other
TYPE OF PROCESS CONNECTION	
B	BSP
N	NPT
W	20 wires
HOUSING	
GCX	Aluminum EX d (Ex proof)
ELECTRICAL CONNECTION	
F	3/4" NPT Conduit
VIBRATION RANGE	
R0.5	0.5 in/s RMS
R1	1 in/s RMS
R2	2 in/s RMS
OPTIONS	
0	None
AT	Extended Neck for temp up to 150°C

VDX500	1	B	GCX	F	R2	0
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