

# SV42 Vibration Sensor

## SVT42 Vibration Sensor with Internal Temperature Sensor

### Overview

The SV42 and SVT42 is a compact and robust vibration sensor used to monitor and detect misalignment or imbalance in motors, fans, centrifuges, compressors, generators and other machinery. Widely used in industrial applications, the vibration sensor is a key part of any plants preventive maintenance plan.

The SVT42 model has all the above features and has an internal temperature sensor with (4...20mA output) to monitor engine heating, pumps and where the transmitter is installed.

An Exd explosion proof housing can be integrated for applications in a hazardous area.

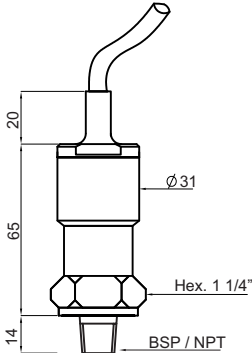
The sensor measures the mechanical vibration speed in a range of 10, 20, 30, 40 and 50 mm/s (RMS) on non-rotating surface and converts it to signal 4...20mA (2-wire) proportional with great precision and stability even when applied to large equipment .

The SV42 and SVT42 can be installed with a threaded fixed base or magnetic base (recommended when you need to remove or easily move the sensor).

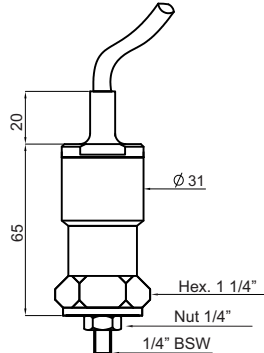


### Dimensions (mm)

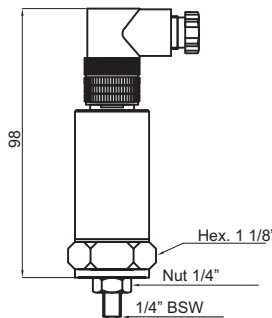
**Crimped cable Threaded**



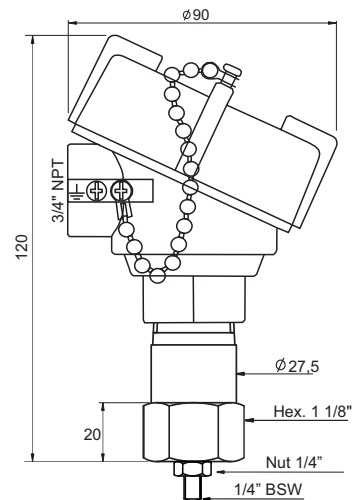
**Crimped cable Screw and Nut**



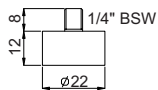
**M12 connector Screw and Nut**



**SV42 EXd Housing**



### Accessories



**Magnet**

## Technical characteristics

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**Power Supply:** 12...30 Vdc

**Consumption:** 22mA

**Output:** SV42/MV42: 4...20mA (2 wires) (to vibration)

SVT42: 4...20mA (to vibration) + 4...20mA (to temperature)

**SVT42 Temperature Range:** 0~100°C

**Load max:** (Vin - 7,6) / 25mA

**Isolation:** 500Vrms, between circuit and enclosure

**Accuracy:** ± 0,5% F.S.

**Range:** 10, 20, 30, 40, 50mm/s RMS

**Frequency Range:** 40...1000Hz

**Sensor Type:** 1 axis accelerometer

**Electrical Connection:** M12 connector / Polyethylene cable

**Body Material:** 316 SS

**Operating Temp.:** -10 to 70°C

**Protection:** IP67

**Housing Characteristics:**

**Approvals: FM:** Class I Div I Groups B,C,D Class II,III Div I E, F,G

**IECEX:** II2 G Exd II C Gb II 2 D Ex tb IIIC Db

**Material:** Aluminum painted (Blue)

**Electrical Connection:** 3/4" NPT

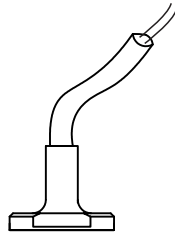
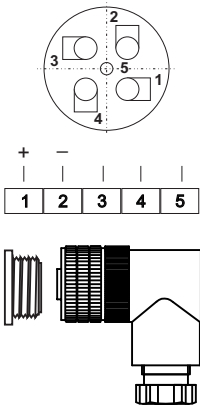
**Protection:** IP66

## Electrical Connections

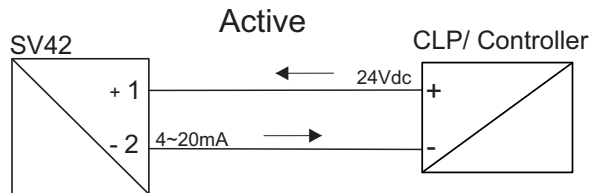
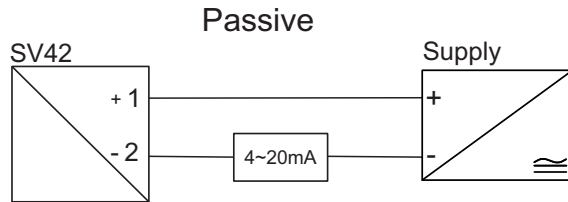
### SV42/MV42 - 4~20mA (2 wires) to vibration

M12 Connector

Crimped Cable

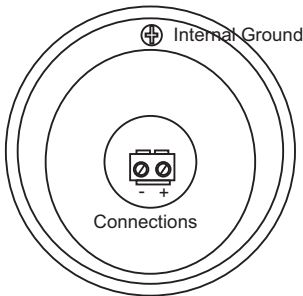


Cable:  
Red (+)  
Black / Blue (-)



### SV42 EX d - Ex proof Housing

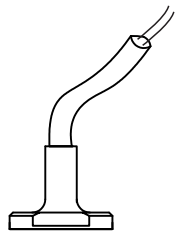
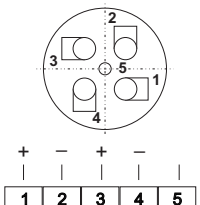
Cover Open



### SVT42 - 4~20mA to vibration 4~20mA to temperature

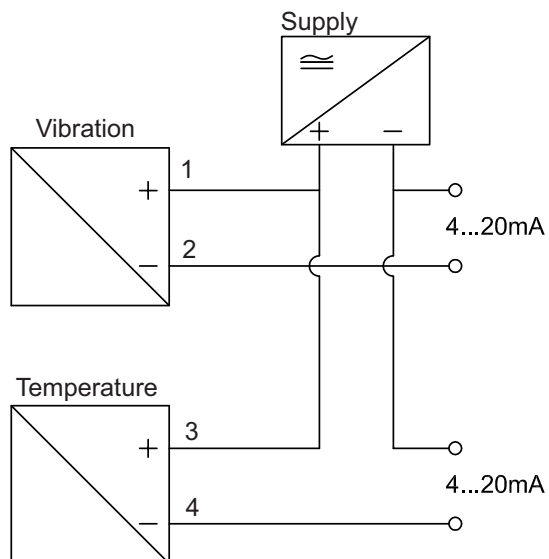
M12 Connector

Crimped Cable



4~20mA (Vibration)  
Red (+)  
Blue (-)

4~20mA (Temperature)  
Yellow (+)  
White (-)



## Order Information

MODELS	
SV42	Vibration Transmitter
MV42	Compact Vibration Transmitter
SVT42	Vibration Transmitter + Temperature sensor

SIZE OF CONNECTION CONNECTION	
1	1/4"
2	3/8"
3	1/2"
X	Other

TYPE OF PROCESS CONNECTION	
B	BSP
N	NPT
W	20 wires (BSW)
F	Female (option for magnetic base)

HOUSING	
SC	None
GCX	Aluminum EX d (Ex proof)

ELECTRICAL CONNECTION	
M	M12 Connector (model without Housing)
S	Crimped cable 2 meters (model without Housing)
F	3/4" NPT (Only Housing GCX)

VIBRATION RANGE	
R10	10 mm/s RMS
R20	20mm/s RMS
R30	30mm/s RMS
R40	40 mm/s RMS
R50	50 mm/s RMS

TEMPERATURE RANGE (Only SVT42)	
R100	0...100°C

OPTIONS	
0	None
M	Magnetic
ST	Tag

SV42	1	W	SC	M	R10		0
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**Example:**

SV42-1-W-SC-M-R10-0: Vibration transmitter / 1/4" / withworth (BSW) / no housing / M12 connector / range 10mm/s / none options

SVT42-1-W-SC-M-R10-R100-0: Vibration transmitter +Temperature / 1/4" / withworth (BSW) / no housing / M12 connector / Range 10mm/s (RMS) / temp. range 0~100°C / none options

- 1/4" 20 Wire threaded peg is standard.
- Order code 1-F- is used for the 1/4" 20 Wire threaded peg which is attached to the Magnet. The magnet screws into the body of the unit.
- The SVT42 offers 2X 4...20mA outputs. One for the vibration range and the second for the temperature range. We do not recommend the magnet mount for this model.

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