

TRV-3300

High Accuracy Industrial Triaxial DC Accelerometer

Data sheet



- Frequency range: DC-500 Hz
- $\pm 1\%$ accuracy at DC-100 Hz
- Ranges: ± 2 g, ± 6 g or ± 16 g
- Weight: 170 grams
- Environmental sealed
- Supply voltage: 10-30 VDC

Measure DC response and low frequency vibrations with higher accuracy

The TRV-3300 is a rugged industrial triaxial DC accelerometer with voltage output and frequency response from DC to 500 Hz. In the frequency range from DC to 100 Hz, the sensor has a very high accuracy, within $\pm 1\%$. The sensor is available in three different versions featuring measurement ranges of ± 2 g, ± 6 g or ± 16 g.

TRV-3300 can be used in a wide range of applications such as structural vibration monitoring, slow rotating machines, condition monitoring, research and development. TRV-3300 is environmental protected by silicon potting internally, for use in harsh industrial environments and for indoor and outdoor applications. It is mounted to the structure by adhesive, screw-mount (M4) or an optionally magnetic mount.

The sensor requires a supply voltage of 10-30 VDC at 5 mA. There is also an optional three channel power supply unit available, the model PS-3300-8. This power unit is a perfect fit for the TRV-3300 and is powered from a built in rechargeable battery or line power.



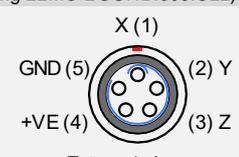
TRV-3300 Technical Data

Performance	TRV-3300-1	TRV-3300-2	TRV-3300-3
Range (Full scale)	±2 g	±6 g	±16 g
Sensitivity (for all axes)	660 mV/g, ±7%	220 mV/g, ±10%	60 mV/g, ±10%
Frequency response (for all axes)	0-100 Hz, ±1% 0-250 Hz, -5% 0-500 Hz, -10%	0-100 Hz, ±1% 0-250 Hz, -5% 0-500 Hz, -10%	0-100 Hz, ±1% 0-250 Hz, -5% 0-500 Hz, -10%
Output noise, Nom. (BW 100 Hz)	0,5 mg RMS	0,75 mg RMS	3 mg RMS
Spectral noise	50 µg/√Hz	100 µg/√Hz	300 µg/√Hz
Amplitude non linearity (%FS)	1%	1%	0,6 %
Transverse sensitivity, Nominal	5%	5%	2%
Shock limit	3000 g	3000 g	10000 g

Electrical	
Nominal offset	1,65 V, ±8%
Supply voltage	10-30 VDC
Reverse supply protection	33 V, 100 mA
Supply current	5 mA
Output overvoltage protection	Continuous: 24 V, 50 mA, ESD: IEC 61000-4-2
Output impedance	<100 ohm
Ground isolation	Signal ground isolated from mounting surface, shield connected to case.

Physical	
Weight	170 grams
Size (Height x Width x Depth)	30 x 50 x 50 mm. excluding mounting flanges
Mounting	Adhesive, screw-mount (4 x M4) or optionally magnetic mount
Cable, connections	Shielded PCV Ø5,3 mm, optional PU flame retardant Ø5,0 mm, pigtail or 5-pin LEMO connector
Material, housing	Aluminium

Environmental	
Operating temperature range	-30°C to +70°C
Humidity	Environmental protected with silicone potting internally, IP68 (submerged 1 meter for 30 min.)

Electrical Wiring				
Standard PVC cable Type 1	Polyurethane Cable Type 2	PVC Braided Screen Type 3	5-pin LEMO FGG.1B.305.CLAD62 (Mating LEMO EGG.1B.305.CLL)	
Standard	PUR	Cabloswiss	External view	
 <p>RED +VE BLACK GND BLUE X GREEN Y BROWN Z WHITE NC SCREEN CASE</p>	 <p>RED +VE BLACK GND YELLOW X ORANGE Y BROWN Z WHITE NC SCREEN CASE</p>	 <p>RED +VE BLACK GND BLUE X GREEN Y YELLOW Z WHITE NC SCREEN CASE</p>	 <p>X (1) GND (5) (2) Y +VE (4) (3) Z</p>	

Contact information

Acoutronic AB
Rådjursstigen 1
SE-170 76 Solna
Sweden

Tel: +46 8 765 02 80
E-mail: info@acoutronic.se
www.acoutronic.se

Ordering options

		A	B	C	D
	TRV-3300-				-
A) Measurement range	1 = ±2 g 2 = ±6 g 3 = ±16 g				
B) Connector	1 = Pigtail 2 = 5-pin LEMO				
C) Cable type	1 = Standard PVC 2 = Polyurethane PUR 3 = PVC Braided Screen				
D) Cable length	x = Length in meters				

Accessories for TRV-3300

Three channel power supply unit for TRV-33300

PS-3300-X

Set of 4 Mounting Magnets for TRV-3300

TRV-MAG