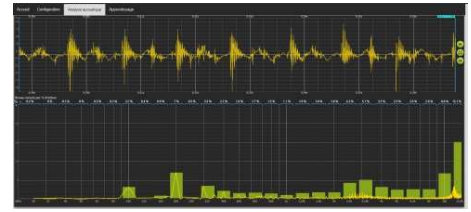


ACOUSTIC SIGNATURE ANALYZER

Continuous vibration watching of industrial machines.



TBV7-E



Type

The transmitter **TBV7-E** is especially designed to be associated with a **MECASON** acoustic signature sensor in order to ensure the vibration watching of industrial machines.

This allows to ensure the preventive maintenance of the machines, to lengthen their lifetime, to safen the production and to improve the staff safety.

Applications

Watching of the rollings on rotating machine, hydraulic turbine, compressor, fan, crusher, ski lifts, centrifugal pumps, ...
Watching of the flow inside a pipe.

Embarked web server allowing the complete configuration of the instrument and the visualisation of all the data (measures, status of the outputs, thirds of octave...)

Tactile μ console provided on front face allowing the visualisation of the measures on spot.



Functions

Acquisition of the data from the MECASON sensor

- Precise analysis of the measure signal of the THD (Total Harmonic Distortion) and by thirds of octaves (27) from 25 to 12700 Hz.
- Possibility to set different alarm setpoints on the THD and/or on all the thirds of octaves, and to send the information on to 2 relay outputs (optional).
- 3 modes of recording of the acoustic signatures:
 - Manual recording
 - Plain self-learning (one signature only recorded)
 - Multiple self-learning, fully configurable, which can record up to 15 acoustic signatures, associated or not with a current measure and/or associated frequency (optional).
- Memorization of the reference acoustic signature with the possibility to listen to them (as well as the current sound), remotely at any time via Ethernet.
- Universal power supply.

Options

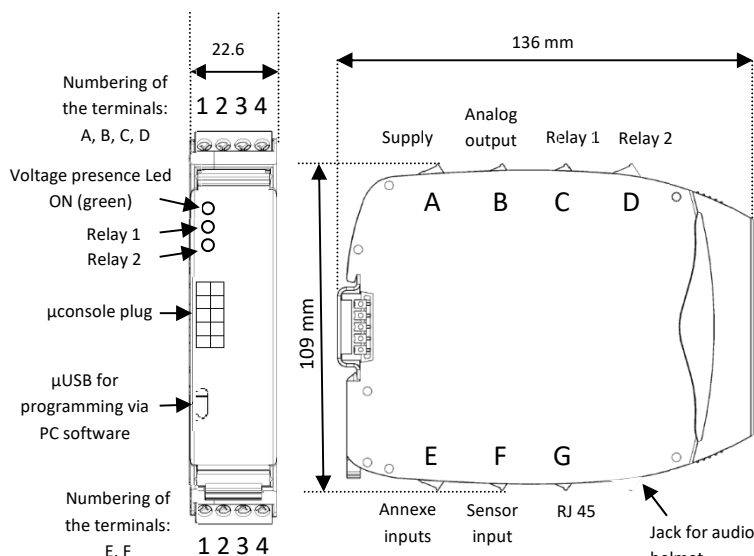
- Analog output (0-20 mA or 4-20 mA) which can be associated with the THD or with 1 of the 27 thirds of octaves (option A).
- 2 alarm and pre-alarm relay outputs (option R).
- Piloting of the automatic oiler (option G).
- Servoing of the acoustic signature via a frequency or mA input (option V).
- Detection of fast shocks.

CE Marking



II 3 G Ex nA IIC T4 Gc

Dimensions



Features

Universal power supply: 20 to 250 VAC / 21.5 to 250 VDC

Power draw: 7.6 VA max. in AC, 4 W max. in DC

Galvanic isolation: 3kV-50Hz-1mn between supply, relays and inputs, analog output, RJ45.

Environment:

Operating temperature: -20°C to +60°C.

Storage temperature: -20°C to +70°C.

Case: 22.6 x 109 x 136 mm (terminals included)
Self-extinguishing UL94 V0 black PA66

Protection: housing / terminals IP20

Connectors: removable terminal blocks for screwed connectings (2.5mm² max, flexible or rigid)

Mounting: in cabinet, latched on symmetrical DIN rail

Max. weight: 290 g (with packaging)



Technical features

► Inputs

• MECASON sensor

Measurement of the total THD and of 27 thirds of octaves

Pass-band From 25 Hz to 12.7 kHz

Digital filter Integration coefficient programmable in case of unsteady signal

• Annexe inputs for servoing (option V)

Frequency input

Type Namur, logic, NPN, PNP

Measurable frequency 0 to 1000 Hz

Accuracy 0.1 % of the measure

Current input

Caliber 0-20 mA or 4-20 mA.

Accuracy 0.2 %

Sensor supply 18V $\pm$ 10% / 20mA

► Outputs

• Analog output (option A)

Current output

Caliber 0-20 mA or 4-20 mA

Admissible load up to 600 Ω (20 mA)

Accuracy 0.1% of the measure range

Ripple 0.2% (peak to peak) of the measure range

• Relay outputs (option R)

Function Alarm, oiler control (**option G**) or diagnosis output

In alarm Mode setpoint or window

Contact type potential free contact 1 break-make

Rated load 5 A – 250 VAC or 30 VDC

Setting of the setpoints and the hysteresis 0 to 100% of the measure range

Time delay: 0 to 999.9 s (programmable)

• Ethernet output

RJ45 female footing

Embarked web server for the configuration of the instrument and the visualisation of the measures.

TCP Modbus link

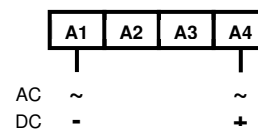
• Audio output

3.5 mm jack type female footing

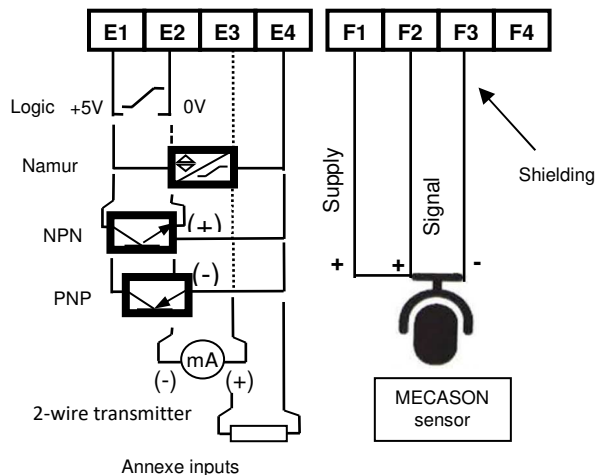
1Veff / 5 mW max.

Connectings

► Supply



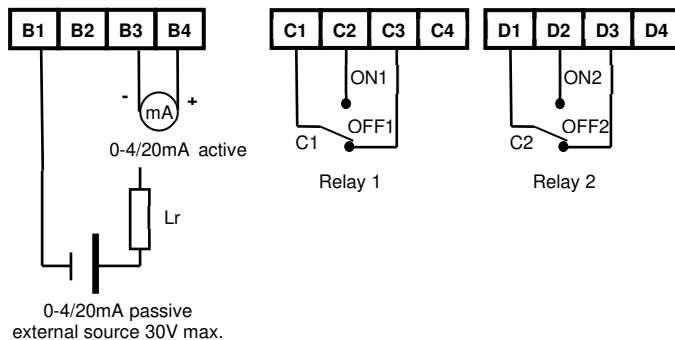
► Inputs



► Outputs

ANALOG OUTPUT (OPTION A)

RELAY OUTPUTS (OPTION R)



0-4/20mA passive external source 30V max.

Coding

Type: TBV7-E

Options

R	2 relay outputs	G	Auto oiler management
V	Servoing inputs	A	Analog output
K	Detection of fast shocks		

Ordering example:

For a TBV7-E with 2 relay outputs and option automatic oiler management request the reference: **TBV7-ERG**

For a TBV7-E with analog outut and the option servoing request the reference: **TBV7-EAV**

This appliance is dedicated to industrial applications. It has to be installed in an electrical cabinet, or equivalent.



E-mail : info@ardetem.com
www.ardetem-sfere.com

Route de Brindas
 Parc d'activité d'Arbora N°2
 69510 SOUCIEU EN JARREST
 FRANCE

Tél : 33 (0)4 72 31 31 30
 Fax : 33 (0)4 72 31 31 31

Your representative

