

VIBRATION TRANSMITTER


TR-I ATEX

CERTIFIED ACCORDING TO ATEX 94/9/CE DIRECTIVE

FUNCTION

The integrated transmitter TR-I measures the absolute vibrations of any rotating machine support and it is able to interface directly in 2 wires technique (current loop $4 \div 20$ mA) to an acquisition system.

The transmitter is certified for classified area

 II 2GD Ex d IIC T6 Gb Ex tb IIIC T85°C Db

GENERAL DESCRIPTION

The transmitter, secured directly on machinery, generates an electric signal ($4 \div 20$ mA) which is proportional to vibration velocity or acceleration. The transmitter is made of a stainless steel body AISI 316L with machine connection thread and it is supplied with a die-casted aluminium case for the terminal board with $\frac{3}{4}$ " NPT female thread.



TECHNICAL CHARACTERISTICS

Composition	<ul style="list-style-type: none"> AISI 316L stainless steel body Die-casted aluminium explosion case
Power supply	<ul style="list-style-type: none"> 24 Vdc ($10 \div 35$ Vdc) current loop $4 \div 20$ mA (2 wires) Maximum load – see figure 1
External connections	<ul style="list-style-type: none"> Terminal board
Environmental use field	<ul style="list-style-type: none"> $-40^{\circ}\text{C} \div +70^{\circ}\text{C}$ IP65
Measure type	<ul style="list-style-type: none"> Omnidirectional seismic (absolute vibration)
Dynamic field	<ul style="list-style-type: none"> ± 18 g
Transverse sensitivity	<ul style="list-style-type: none"> $< 5\%$
Linearity	<ul style="list-style-type: none"> $\pm 2\%$ - 75 Hz
Dynamic performances	<ul style="list-style-type: none"> $\pm 3\%$ / 10Hz – 1kHz - see figure 2 -3db / 1.5Hz – 2.5kHz
Insulation	<ul style="list-style-type: none"> $\geq 10^8 \Omega$ between signal and container
Application axis	<ul style="list-style-type: none"> Any
Standard machine connection thread	<ul style="list-style-type: none"> M8x1,25 $\frac{1}{4}$"-18NPT
Maintenance	<ul style="list-style-type: none"> No maintenance is needed
Parameters to be defined when ordering	<ul style="list-style-type: none"> Measuring field Fixing thread
Mounting torque	<ul style="list-style-type: none"> $5 \div 10$ N-m
Certification	<ul style="list-style-type: none"> Ex II 2GD Ex d IIC T6 Gb Ex tb IIIC T85°C Db



TR-I ATEX

Figure 1
Maximum load on current loop

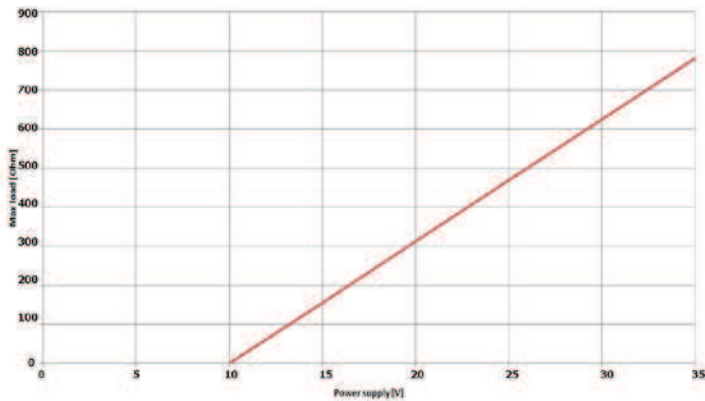
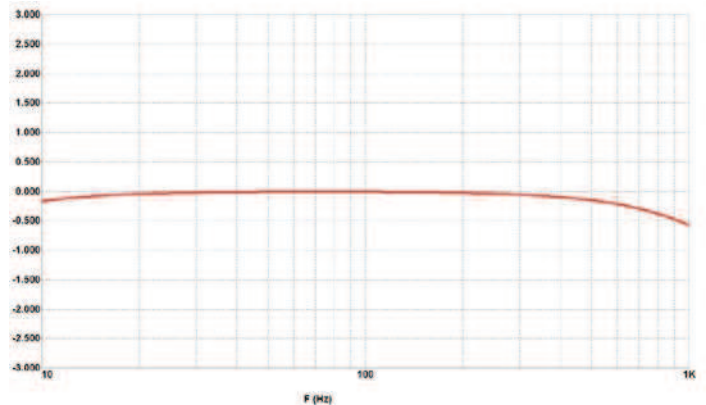


Figure 2
Frequency response [db]



ORDER INFORMATION

TR - I / /

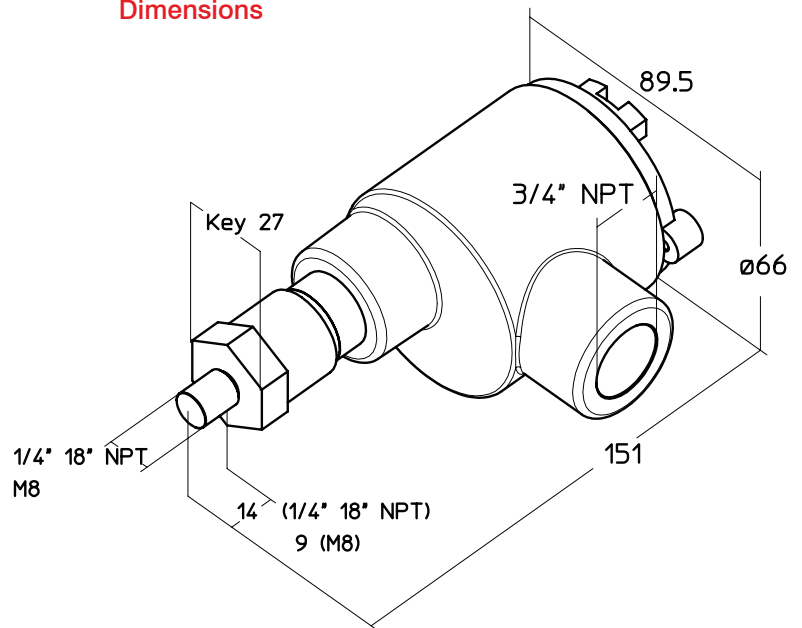
A: MEASURING FIELD

A	B
0	0 ÷ 10 mm/s RMS
1	0 ÷ 20 mm/s RMS
2	0 ÷ 50 mm/s RMS
3	0 ÷ 100 mm/s RMS
4	0 ÷ 1 g RMS
5	0 ÷ 5 g RMS
6	0 ÷ 10 g RMS
S	special to be defined

B: MACHINE CONNECTION THREAD

0	Standard 1/4" - 18NPT
1	M8 x 1,25

Dimensions



PURCHASE ORDER EXAMPLE

TR - I / 0 / 1
 0 = measuring field 0 ÷ 10 mm/S RMS
 1 = standard machine connection thread M8x1,25



CEMB S.p.A.
 Via Risorgimento, 9
 23826 MANDELLO DEL LARIO (LC) Italy
 www.cemb.com



Vibration analysis division:
 phone +39 0341 706111
 fax +39 0341 706299
 e-mail: stm@cemb.com

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