

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 ÷ 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÷20mA) 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 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 ÷ 35 Vdc) current loop 4 ÷ 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°C ÷ + 70°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"> • ± 2% - 75 Hz
Dynamic performances	<ul style="list-style-type: none"> • ±3% / 10Hz – 1kHz - see figure 2 • -3db / 1Hz – 2.5kHz
Insulation	<ul style="list-style-type: none"> • ≥ 10⁸ Ω 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 • 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 • Machine connection thread
Mounting torque	<ul style="list-style-type: none"> • 5 ÷ 10 N-m
Certification	<ul style="list-style-type: none"> • Ex II 2GD Ex d IIC T6 Gb Ex tb IIIC T85°C Db



CEMB
BALANCING MACHINES

TR-I ATEX

Figure 1
Maximum load on current loop

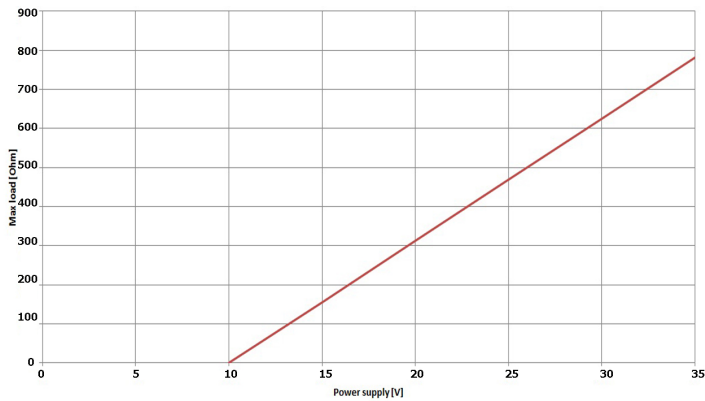
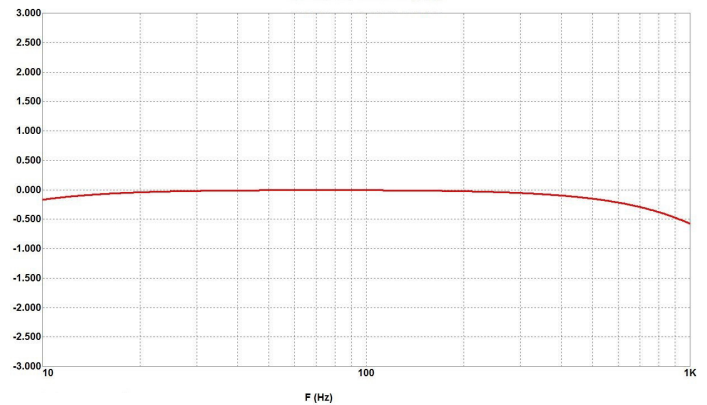


Figure 2
Frequency response [db]



ORDER INFORMATION

TR - I / / /

A: MEASURING FIELD

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
7	0 ÷ 25,4 mm/s (0 ÷ 1 in/s) RMS
8	0 ÷ 12,7 mm/s (0 ÷ 0,5 in/s) RMS
S	special to be defined

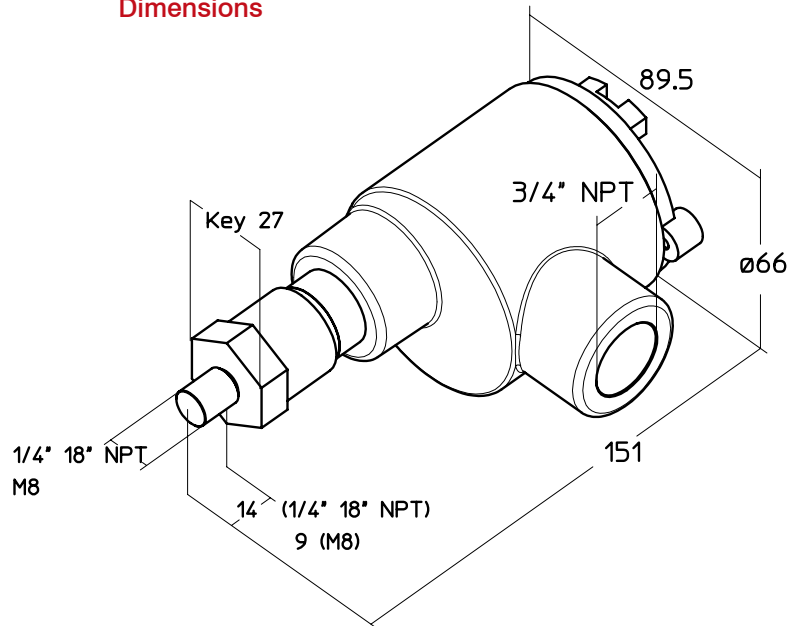
B: MACHINE CONNECTION THREAD

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

C: ATEX CERTIFICATION

2	ATEX II 2GD Ex d II C T6 Gb Ex tb III C T85°C Db
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Dimensions



PURCHASE ORDER EXAMPLE

TR - I / 0 / 1 / 2

0 = measuring field 0 ÷ 10 mm/S RMS

1 = standard machine connection thread M8x1,25

2 = ATEX certification