

VIBRATION TRANSMITTER

TR-27



FUNCTION

The integrated transmitter TR-27 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 (PLC or DCS).

GENERAL DESCRIPTION

The transmitter, secured directly on machinery, generates an electric signal ($4 \div 20$ mA) which is proportional respectively to vibration velocity or acceleration. The transmitter is made of an AISI 316L steel body with machine connection thread; the connection to the acquisition system is effected by means of an integral cable.

It is available both a standard version (PVC shielded cable and nickel-plated brass cable gland) and a special version for aggressive environment (EFTE shielded armoured cable and AISI 316L steel cable gland).

NOTE: The transmitter is available in different configuration versions and does not need any set-up or maintenance.

TECHNICAL CHARACTERISTICS

Composition	<ul style="list-style-type: none"> AISI 316L stainless steel integrated transmitter body
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"> Standard: PVC shielded cable with nickel-plated brass cable gland Special: EFTE shielded and armoured cable, with AISI 316L steel cable gland
Environmental	<ul style="list-style-type: none"> Transmitter - $50^{\circ}\text{C} \div + 120^{\circ}\text{C}$ IP 68 (submersible depth 70 mt) Standard cable: $-20^{\circ}\text{C} \div + 80^{\circ}\text{C}$ Special cable: $-50^{\circ}\text{C} \div + 150^{\circ}\text{C}$ - resistance UV
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 / 1,5Hz - 2kHz
Insulation	<ul style="list-style-type: none"> $\geq 10^8$ Ω between signal and case
Application axis	<ul style="list-style-type: none"> Any
Standard machine connection thread	<ul style="list-style-type: none"> M8x1,25 1/4"-18NPT 1/4"-28UNF
Maintenance	<ul style="list-style-type: none"> No maintenance is needed
Electrical connections	<ul style="list-style-type: none"> Bipolar shielded cable, conductors typical section 2x1mm²
Parameters to be defined when ordering	<ul style="list-style-type: none"> Measuring field Fixing thread Version Cable length
Mounting torque	<ul style="list-style-type: none"> $5 \div 10$ N-m

TR-27

Figure 1
Maximum load on current loop

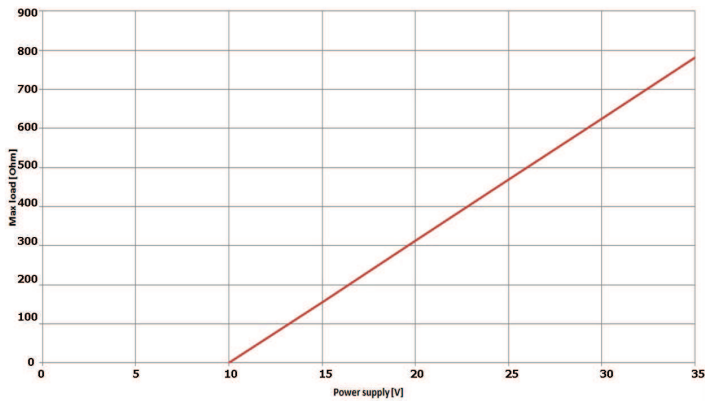
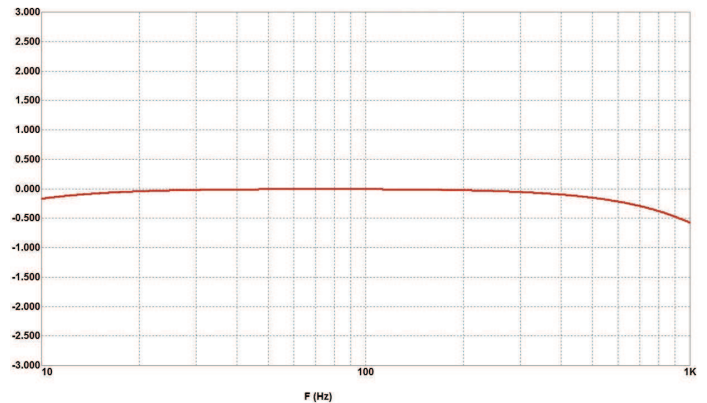


Figure 2
Frequency response [db]



ORDER INFORMATION

TR - 27 / / / /

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
S	special to be defined

B: MACHINE CONNECTION THREAD

0	M8x1,25
1	1/4" - 18NPT
2	1/4" - 28UNF

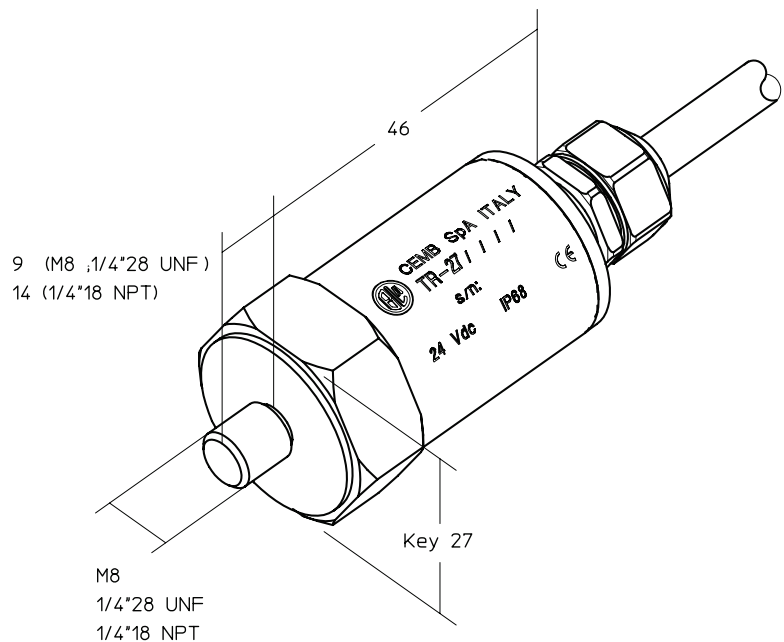
C: VERSION

0	Standard
1	Special

D: CABLE LENGTH

XX	length in meters
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Dimensions



PURCHASE ORDER EXAMPLE:

TR - 27 / 1 / 0 / 1 / 05

- 1= Measuring field 0 ÷ 20 mm/S RMS
- 0= Machine connection thread M8x1,25
- 1= Special version
- 05= Cable length 5 meters



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