

CERTIFIED ATEX
CERTIFIED IECEx
CERTIFIED SIL2

VIBRATION TRANSMITTER

TR-I



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. It is made in Explosion proof version for application in aggressive environment.

The transmitter is certified for application in classified area as

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

Ex d IIC T6 Gb Ex tb IIIC T85°C Db (IECEx)

The transmitter is certificate SIL 2 for functional safety EN/IEC 61508 standard.

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 proof 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
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 / 1Hz - 2kHz
Insulation	<ul style="list-style-type: none"> $\geq 10^8 \Omega$ between signal and container
Application axis	<ul style="list-style-type: none"> Any
Maintenance	<ul style="list-style-type: none"> No maintenance is needed
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 (ATEX) Ex d IIC T6 Gb Ex tb IIIC T85°C Db (IECEx)



Figure 1 - Maximum load on current loop

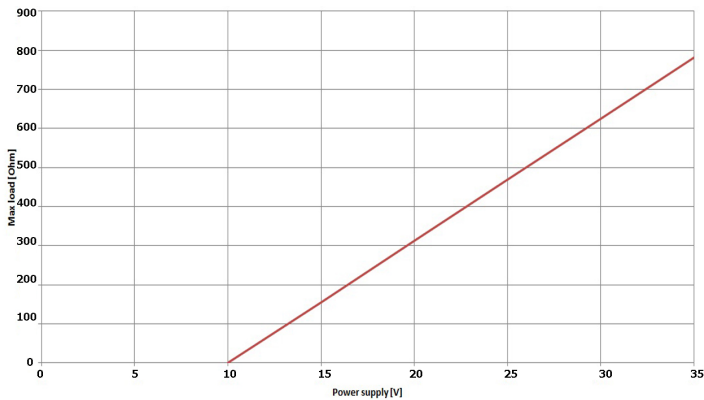
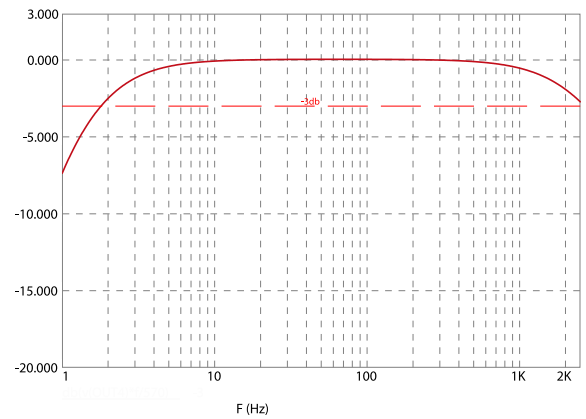


Figure 2 - Frequency response [db]



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

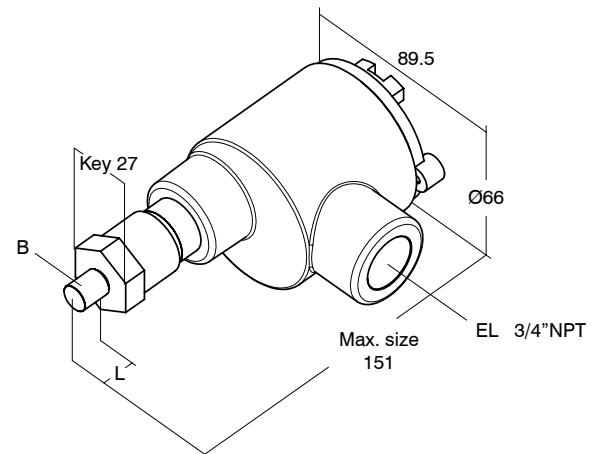
0	Standard 1/4" - 18NPT	L=14 mm
1	M8 x 1,25	L=9 mm
2	1/4" - 28NPT	L=9 mm
3	M8 x 1	L=9 mm

C: CERTIFICATION

0	Standard
2	Ex II 2GD Ex d IIC T6 Gb Ex tb IIIC T85°C Db (ATEX)
5	Ex d IIC T6 Gb Ex tb IIIC T85°C Db (IECEX)

D: CASE SURFACE FINISH

0	Standard not painted
1	Epoxy paint



OPTIONAL ACCESSORIES



CONDUIT ADAPTER 3/4" NPT - 1/2"
528000057

CONDUIT ADAPTER 3/4" NPT - M20
528000058

B5MAG10 CY002

PLASTIC TAG
040STR000

B5MAG10 CY002

STAINLESS STEEL TAG
980710835