

VIBRATION TRANSMITTER

TR-P



FUNCTION

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

GENERAL DESCRIPTION

The transmitter, secured directly on machinery, generates an electric signal (4÷20 mA) which is proportional to vibration velocity or acceleration. The transmitter is made of a stainless steel basis AISI 316L with machine connection thread and a polyamide molded body; the connection to the acquisition system is effected by means of a TE CONNECTIVITY SUPERSEAL connector. The peculiar characteristics of the polyamide construction and of the connection allow unique resistance to extreme ambient conditions, enabling an IP67 protection degree.

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

TECHNICAL CHARACTERISTICS

Composition	<ul style="list-style-type: none">• AISI 316L stainless steel thread basis• Polyamide body
Power supply	<ul style="list-style-type: none">• 24Vdc (10 ÷ 35Vdc) current loop 4 ÷ 20mA• Maximum load - see figure 1
External connections	<ul style="list-style-type: none">• TE SUPERSEAL 1,5 2 poles connector complete with cable
Electrical connections	<ul style="list-style-type: none">• PVC bipolar shielded cable, conductors typical section 2x0,35 mm²
Environmental use field	<ul style="list-style-type: none">• - 30°C ÷ + 120°C• IP 67 EN 60529/10.91 standard
Measure type	<ul style="list-style-type: none">• Omnidirectional seismic (absolute vibration)
Dynamic field	<ul style="list-style-type: none">• ± 15 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 / 3Hz – 1.5kHz
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
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• Cable length
Mounting torque	<ul style="list-style-type: none">• 5 ÷ 10 N-m



TR-P

Figure 1
Maximum load on current loop

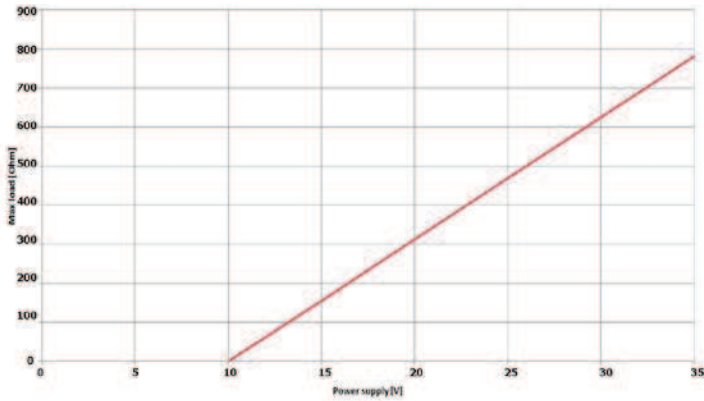
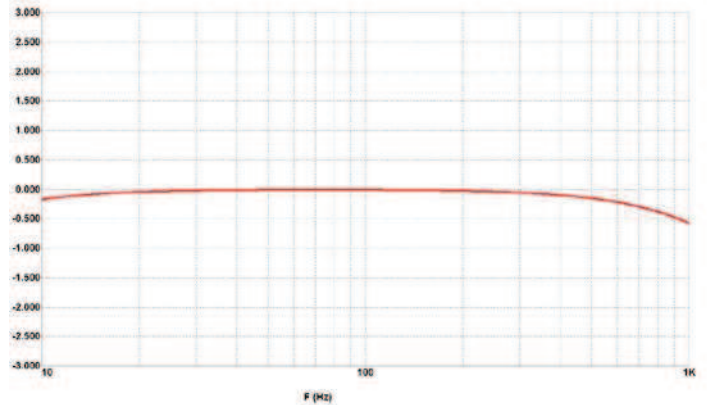


Figure 2
Frequency response [db]



ORDER INFORMATION

TR - P / A

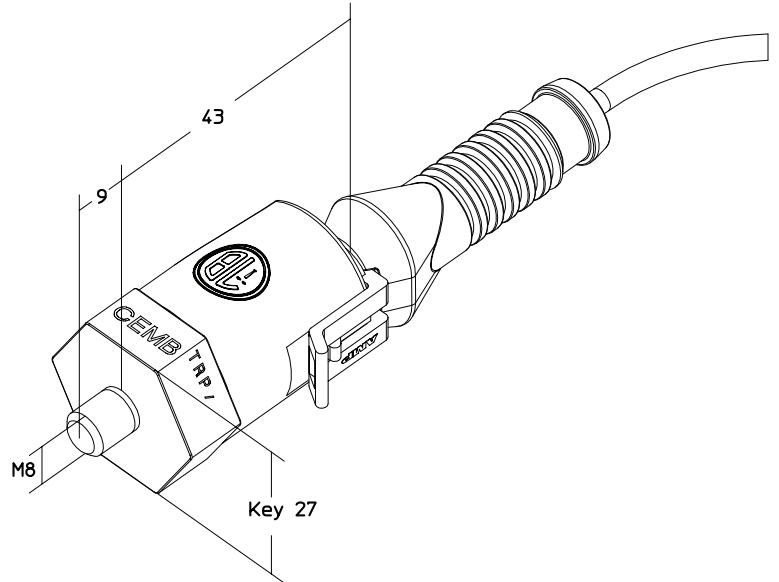
A: MEASURING FIELD

0	0 ÷ 10 mm/s RMS
1	0 ÷ 20 mm/s RMS
2	0 ÷ 50 mm/s RMS
S	special to be defined

CTR - P / L

L: CABLE LENGTH IN METERS
(max 50 m)

Dimensions



PURCHASE ORDER EXAMPLE:

TR - P / 1
1 = Measuring field 0÷20 mm/S RMS


CTR - P / 05
05 = Cable length 5 m



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