HOFMANN

TRANSMITTER

TR-A/V/VMT

FUNCTION

The TR-A/V/VMT transmitter connected to a dedicated transducer (accelerometer, velocimeter or velomitor) measures absolute vibration of any machine support and is capable of directly interfacing with an acquisition system (PLC or DCS) in 2-wire (4-20 mA current loop) or 3-wire technique.

GENERAL DESCRIPTION

The TR-A/V/VMT transmitter processes the signal coming from the transducer connected to it and converts it into a proportional analogue signal at the measured magnitude.

It can be installed in a secure area and connected by means of certified barriers to intrinsic safety transducers positioned in a classified area.

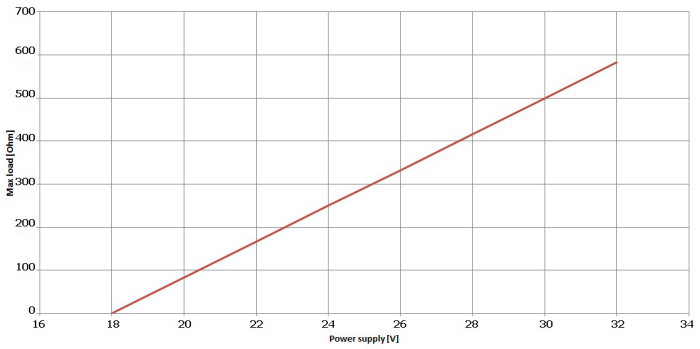
It comes complete with terminal strips for connection to a power supply, input and output signals and a BNC for connection to an analyser.

TECHNICAL CHARACTERISTICS	TR-A/V/VMT
Composition	• Transmitter with provision for fastening to a DIN guide • TR-A interfaceable with accelerometers with a sensitivity of 100 mV/g (TA-18 – TA-18/S) • TR-V interfaceable with velocimeters with a sensitivity of 21.2 mV/mm/s (T1-40 – T1-40V – T1-40BF – T1-38 – T1-38V – T1-38BF) • TR-VMT interfaceable with velomitor TV-22 (3,94 mV/mm/s)
Power supply	• 24 VDC nominal • 18-30 VDC for 2-wire version (see Figure 1 for the maximum load) • 24-35 VDC for 3-wire version
External connections	• Terminal strip for connection to a PLC/DCS (2- or 3-core screened cable, max. cross-section 2.5mm²) • Terminal strip for connection to a transducer (2- or 2-core screened cable, max. cross-section 2.5mm²) • BNC for connection to an analyser
Operating temperature range	• 35°C ÷ +70°C
Type of measurement	• Absolute vibration
Dynamic performance	• 5 ÷ 10.000Hz
Linearity	• ± 2% over the entire measurement range and within the operating temperature limits indicated
Insulation	• ≥10^8 Ω between signals and container
Possible provisions at the time of order	• Transducer type • Magnitude measured • Measurement mode • Measurement range • Filters • Power supply type • Output type

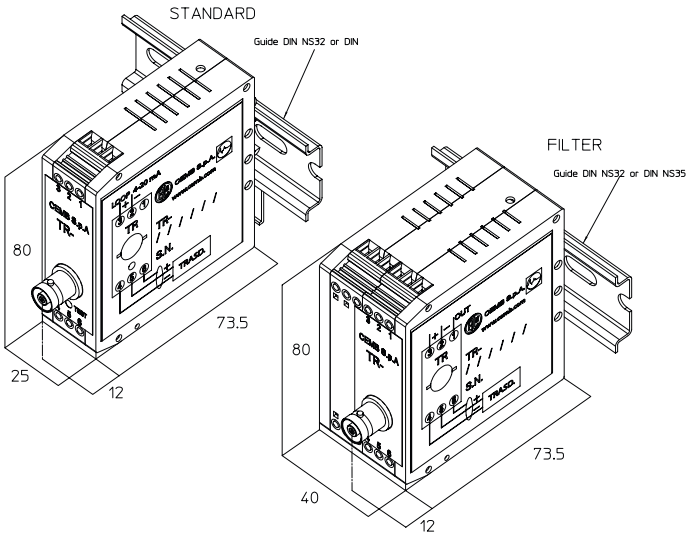
CEMB
BALANCING MACHINES

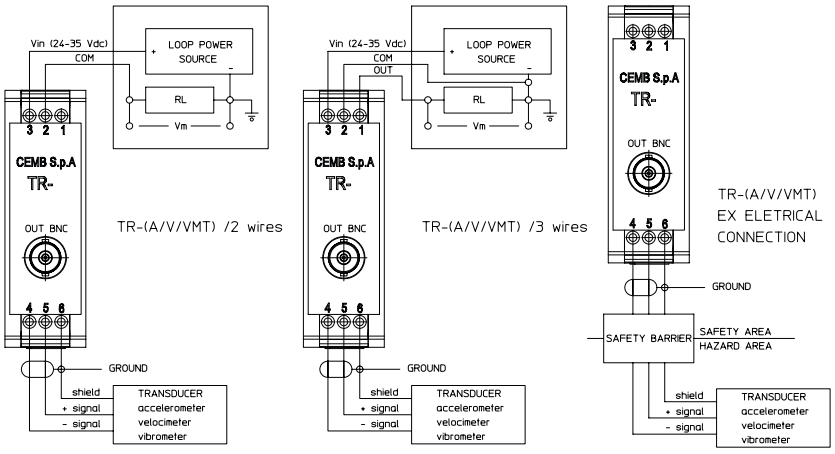
TR-A/V/VMT

Maximum load



Dimensions





ORDER INFORMATION

TR - A / B / C / D / E / F / G / H

A: TRANSDUCER TYPE

V	velocimeter
A	accelerometer
VMT	velomitor

B: MAGNITUDE MEASURED

0	displacement (only for TR-V and TR-VMT)
1	speed
2	acceleration (only for TR-A)

C: MEASUREMENT MODE

0	RMS
1	peak
2	peak-peak

D: MEASUREMENT RANGE

0	0 ÷ 100 μm	6	0 ÷ 1 g
1	0 ÷ 200 μm	7	0 ÷ 5 g
2	0 ÷ 500 μm	8	0 ÷ 10 g
3	0 ÷ 10 mm/s	9	0 ÷ 20 g
4	0 ÷ 20 mm/s	S	special (to be defined)
5	0 ÷ 50 mm/s		

E: HIGH-PASS FILTER

0	without filter	4	50 Hz
1	5 Hz	5	100 Hz
2	10 Hz	6	1000 Hz
3	20 Hz	S	special (to be defined)

F: LOW-PASS FILTER

0	without filter	4	5000 Hz
1	100 Hz	5	10000 Hz
2	1000 Hz	S	special (to be defined)
3	2500 Hz		

N.B: the low-pass filter frequency must be at least double that of the high-pass filter.

G: POWER SUPPLY TYPE

2	2-wire (current loop)
3	3-wire

H: OUTPUT TYPE

0	4 - 20 mA
2	0 - 10 VDC (only for 3 wires)

ORDER EXAMPLE:

TR - A / B / C / D / E / F / G / H

A 1 0 3 2 2 3 0

A = accelerometer transducer
1 = measurement in speed
0 = RMS measurement
3 = 0 - 10 mm/s measurement range
2 = 10 Hz high-pass filter
2 = 1000 Hz low-pass filter
3 = 3-wire power supply
0 = 4 - 20 mA