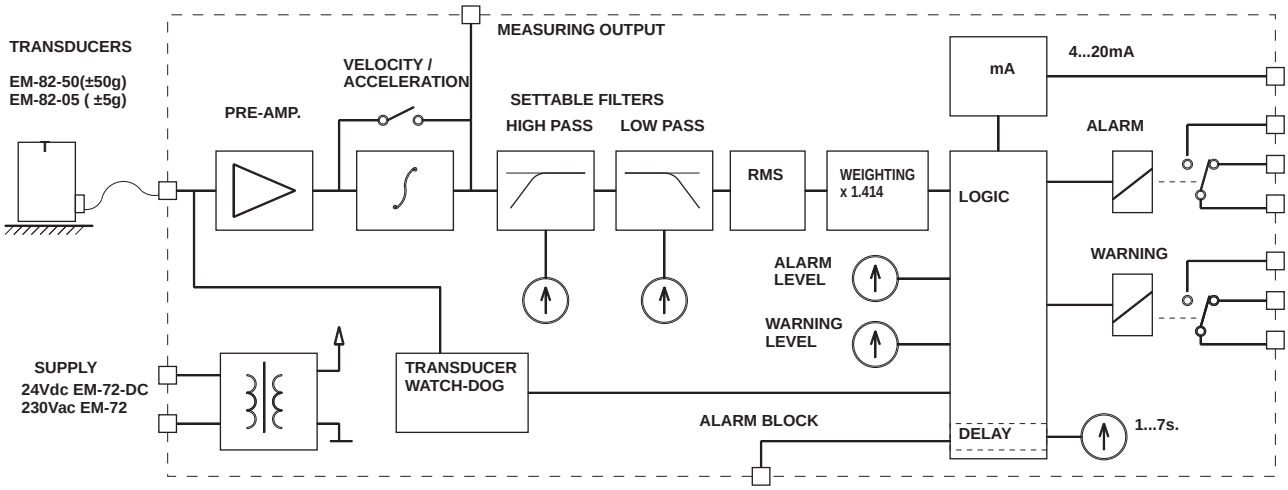
EM-72 VIBRATION CONTROL UNIT

FEATURES

- **acceleration / velocity measuring mode**
- **galvanically isolated power supply**
- **settable lowpass & hipass filters**
- **compact size**
- **alarm and warning relay output**
- **TrueRMS output, mA - signal**

This vibration monitoring system consists of accelerometer EM-82 and of combined transducer supply and monitor unit EM-72. Accelerometer is built to a light alloy housing IP67 and the monitoring unit is delivered in polycarbonat housing with protection class IP65.
The structure of EM-82 is so-called capacitive single chip transducer. This technique facilitates features as good long-term repeatability, accuracy, shock resistance, good temperature stability and linear frequency response. The output buffer state included in the transducer amplifies the signal thus attaining a good interference tolerance even with higher cable lengths. The accelerometer is available in two ranges.
In addition to the operating voltage supply for the accelerometer the EM-72 monitors the output voltage from the transducer and indicates the malfunctions of the accelerometer or cable. With EM-72 the quantity being monitored can be selected from acceleration / velocity. The highly sophisticated adjustable low- and highpass filters increase the usability of this equipment as they make possible to monitor of just the desired frequency possible. The RMS weighted detector transforms the amplitude of vibration to corresponding DC-voltage. Logic stage controls the DC-level and induces a warning or alarm if the preset border values are exceeded. Alarms can be disabled with so-called alarm block input. All the settings of the system are done with rotating switches or easily readable DIP-switches.
The EM-72 has the outputs for following signals: vibration signal (Voltage), vibration level (mA), warning (relay output) and alarm (relay output).



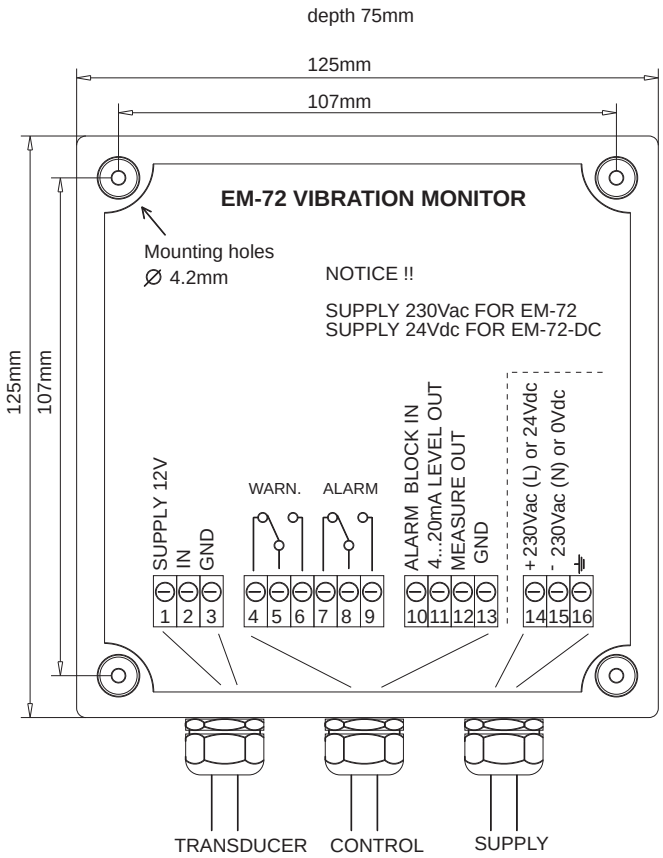
EM-72 or EM-72-DC VIBRATION MONITOR

MOUNTING

Mounting with four M4x20 screws.

CONNECTIONS

1. Transducer supply
2. Transducer signal in
3. Transducer gnd
4. Warning relay N.C.
5. Warning relay COM.
6. Warning erlay N.O.
7. Alarm relay N.C.
8. Alarm relay COM.
9. Alarm relay N.O.
10. Alarm block
11. 4...20mA out
12. Measure out
13. Gnd
14. 230V (L) / 24Vdc
15. 230V (N) / 0V
16. Earth/ shield



TECHNICAL DATA:

Operating voltage	230Vac or 24Vdc +-15%
Current consump.	50mA or 150mA
Transducer	EM-82-05 or EM-82-50
Supply to transd.	12 V (15 mA)
Low-pass filter	12, 25, 50, 100, 200Hz
(2nd. order)	400, 800, 1600Hz (2nd)
High-pass filter	3, 6, 12, 25, 50, 100Hz
(2nd. order)	200, 400Hz 2 (2nd)
Alarm level	1...50mm/s or 1...50m/s² (-05)
	10...500mm/s or 10...500m/s² (-50)
mA-Output	4...17mA => 0...100%
	R-load 0...300ohm
Measure output	400mV / mm/s or 400mV / m/s² (-05)
	40mV / mm/s or 40mV / m/s² (-50)
Dimensions	125x125x75mm
	140x140x75mm (metal housing)
Operating temp.	0...60°C
Weight.	appr. 200g

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