VM41R-A

Vibration Monitor
Max. 10 Channels

Every channel has:
- Analysis output
- mA output(RMS)
- Independent alarm and trip relay functions
- Transient and voltage protection on every input and output

The Base frame has:
- Common power unit for all channels
- Power supply 24VDC, 110VAC and 220VAC
- Screw terminals for cable connections
- Channel switch
- Display for alarm and vibration level of selected channel

Functions

The channel to be displayed is selected by the channel switch on the power unit.
The display shows the vibration level as 0-100% of selected measuring range.
If the selected range is 0-100mm/s the display will show the vibration level in mm/s.
When pressing the SET button the display is showing alarm level. The alarm level can be adjusted by a potentiometer close to SET button.

Radio Shield

All the external inputs and outputs are protected against high frequencies by serial impedances and decoupling condensers.
The supply power has a hum eliminator and the secondary winding of the transformer has a protection against transients.

Screw Terminals:
Max for 2,5mm2 cable

Size:
Width 84TE(430mm), Height 3HE(133mm), Depth 215mm

Weight:
Without channel cards 3110 grams
With 10 channel cards 4900 grams

Working Temperature:
0-70°C

Power Consumption:
-with 24DC
max 1,9W/channel
-with 110V/220VAC
max 2,7W/channel

Power supply inputs are polarity protected.

VM41R-A

Channel card for Accelerometer with built-in amplifier.
The transducer signal is available at the BNC connector and on the card connector for further analysis.

The analysis signal is in velocity but can be modified to acceleration. The alarm and mA signal is measured in velocity.

The velocity signal can be amplified in 3 selectable ranges – 10, 25 and 100mm/s corresponding to 100% full scale.

The signal is then converted to an RMS value. This DC-level is compared with the alarm level. If the RMS level is higher than the alarm level, a LED lamp is lit. If the RMS level has been higher during the whole selected delay time, the relay is changing.

The RMS level is converted to a corresponding current output selectable between 0-20mA or 4-20mA. This signal is available on the card connector for connection to other instruments or data logger.

Input sensitivity:
100mV/g. The positive input terminal supplies a 4mA Constant Current at max. 20V, used to drive a built-in transducer amplifier.

Frequency Range:
1.5 – 2000Hz as standard. Low frequency range can be changed to 10-2000Hz on the pc-board.

Analysis output:
Velocity: 10mV(mm/s) between 1.5Hz-15kHz or 10Hz-15kHz. Min. load 10Kohm.
Choice of the measuring range does not influence the sensitivity of the analysis output.

Measuring range selectable:
10, 25 and 100mm/s on the pc-board.

Current output:
The current output is selectable between 0-20mA or 4-20mA on the pc-board.
Max. load not more than 750ohms or 15V. 20mA refers to 100% of the selected measuring range.

Time delay:
The time delay of the relay activation is adjustable between 0-60 sec. Or 8-90 sec.
The initial time delay 0 or 8 sec. Is selectable on the pc-board.

Alarm settings:
The alarm levels are set with the front potentiometers between 0-100% and refer always to max. signal at selected range.

Relay output and functions:
Single pole changeover relay 5 amps/250VAC.
The relay coil can be activated or deactivated below alarm level by a switch on the pc-board.

Size:
Width 7TE(35mm), card size 100x160mm

Vibrations Mät Instrument

VMI AB
Torsgatan 1
S-603 63 Norrköping, Sweden
Tel. 011-311667 / 311668
Fax. 011-311678
e-mail: vmiab@telia.com
www.vmi-instrument.se

Authorised distributor