

Technical Description

REOVIB BK 032

Amplitude Comparator

REO ELEKTRONIK GMBH
Fertigung
Erasmusstraße 14
D-10553 Berlin
Tel. (030) 349928-0
Fax (030) 349928-88
<http://www.reo.de>
eMail: sales@reo.de

REO ELEKTRONIK GMBH
Entwicklung + Vertrieb
Brühler Straße 100
D-42657 Solingen
Tel. (0212) 8804-0
Fax (0212) 8804-188
<http://www.reo.de>
eMail: sales@reo.de

REOVIB
STEUERGERÄTE FÜR DIE VIBRATIONSZUFÜHRTECHNIK

General

The unit is used for monitoring vibratory feeders or components, which could malfunction when subjected to excessive vibration. The amplitude is measured by using an accelerometer, which is attached to the machine or piece of plant to be monitored and this is connected to an amplitude comparator. The value of the maximum and minimum amplitude can be set between 0.5 and 10 g, approximately.

Internal contacts, which changeover when the maximum and minimum amplitude values are exceeded, are available for integration into safety or signalling circuits.

The amplitude comparator operates in conjunction with a SW 07 accelerometer, or other compatible types.

An additional input is provided for use with a 4...20 mA amplitude signal (accelerometer not connected). This is used when the accelerometer is positioned a long distance away from the comparator. The signal from the sensor is converted by using a voltage/current transformer of the type REOVIB VUI-2 before it is sent back to the amplitude comparator.

Applications

- Machine protection
- Centrifuges
- Vibratory feeders
- Monitoring air conditioning systems

Function Description

The signal contacts, within the amplitude comparator, can be used normally open or normally closed. The amplitude comparator is connected to equipment, which has to be protected. During start up, there can be periods of instability, which have to be ignored. False tripping is eliminated by setting a time delay of between 0.5 to 15 seconds. A led "t", on the front panel of the unit indicates that the time delay is in operation. After the time delay has expired, the monitoring then becomes active and the internal relays will switch immediately after an amplitude limit is exceeded. This is indicated by "min" and "max" led's on the front panel

An internal circuit monitors whether the accelerometer cable is in good condition and switches the unit off in the event of failure, whilst at the same time indicating a "max" exceeded condition. The unit requires a 230 V +5%-10%, 50/60 Hz supply and it produces the operating voltage for the accelerometer.

Construction

The amplitude comparator is built into a DIN rail, snap-on, module for panel mounting. Terminal covers for touch protection are fitted.

Connection and adjustment

The unit is connected according to the diagram on the following sheet.

When the unit is switched on the "t" led will illuminate to indicate a time delay and during this time the monitoring circuit is not active. The time delay is adjusted by turning trimmer "t", on the front panel and this is set for the prevailing conditions. The time delay should allow for the equipment to reach a stable state.

The trimmers "min" and "max" can be used to set the limits as required.

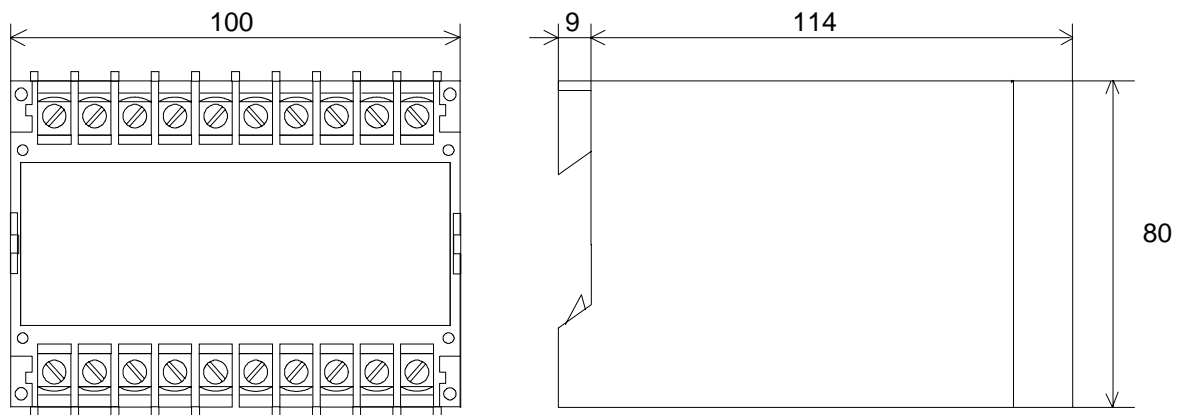
Technical Data

| | | |
|---------------------------------|----------------------------------|--------------------------|
| Supply Voltage | 230 V (+6%-15%), 50/60 Hz | 115 V (+ - 10%) 50/60 Hz |
| Time delay | 0.5 - 15 s | |
| Amplitude range | 0.5 - 10 g | |
| Signal contacts | 2 changeover relays 2 A / 250 V~ | |
| Supply for sensor | +/- 15 V | |
| Sensor input | 0 - +/- 10 V pulse pr AC voltage | |
| Current input | 4...20 mA Vibration | |
| Operating temperature | 0 - 45 °C | |
| Dimensions (DepthxWidthxHeight) | 80 x 100 x 114 mm | |
| Protection | VGB 4 | |

Ordering Code: REOVIB BK 032

ID-Nummer 03202 / 230 V
03203 / 115 V

Dimensions



Casing front view

Connection diagram

