



**Operating Instructions**

REOVIB Type 50910 / 50911

Thyristor control unit for vibratory feeders

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**REOVIB**  
FOR VIBRATORY FEEDER SYSTEMS

**Technical Safety Information for the User**

This description contains the necessary information for the correct application of the product described below. It is intended for use by technically qualified personal.

Qualified personnel are persons who, because of their training, experience and position as well as their knowledge of appropriate standards, regulations, health and safety requirements and working conditions, are authorised to be responsible for the safety of the equipment, at all times, whilst carrying out their normal duties and are therefore aware of, and can report, possible hazards (Definition of qualified employees according to IEC 364)

**Safety Instructions**

The following instructions are provided for the personal safety of operators and also for the protection of the described product and connected equipment.



**Warning!**  
**Hazardous Voltage**  
 Failure to observe can kill, cause serious injury or damage

- Isolate from mains before installation or dismantling work, as well as for fuse changes or post installation modifications.
- Observe the prescribed accident prevention and safety rules for the specific application.
- Before putting into operation check if the rated voltage for the unit conforms with the local supply voltage.
- Emergency stop devices must be provided for all applications. Operation of the emergency stop must inhibit any further uncontrolled operation.
- **Electrical connections must be covered**
- **The earth connection must be checked, for correct function, after installation.**
- **After switching off the unit, some internal components will still be charged due to capacitance.**
- **Before opening the unit wait at least five minutes to allow capacitors to discharge.**

**Specified Use**

The units described herein are electrical controllers for installation in industrial plant. They are designed for power adjustment on vibratory feed equipment.

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**1.0 Description**

The REOVIB 509 unit is a power controller for powering vibratory feeders which have a mechanical vibrating frequency which is the same as, or double that of mains frequency. The adjustment of feeder throughput is achieved by using two thyristors with phase angle control. The set point of the feeder throughput can be derived from a set point potentiometer, a control voltage 0-10 V, DC or a control current 0-20 mA, DC. Mains fluctuations are compensated from an internal regulating step.

**2.0 Technical Data**

Supply voltage	230 V +6% -10% 50/60 Hz or 400 V +6% -10% 50/60 Hz
Output voltage	40 - 210 V bzw. 60 - 360 V
Output current	15 A
Set point source	Potentiometer 10 kΩ / 0 - 10 V, DC / 0(4) - 20 mA
Enable	contact or 12-24 V, DC galv. separated
Ambient temperature	0 - 45 °C
Protection	IP 20
Dimensions (HxWxD)	74 x 150 x 112 mm
Standards	EN 61000- 6- 4, EN 61000- 6- 2
<b>Fuse protection on the unit must be provided from extern.</b>	

**3.0 Declaration of Conformity**



We declare that these products conform with the following standards : EN 61000-6-4 and EN 61000-6-2 in accordance with the regulations of guidelines 2004/108/EWG.

REO ELEKTRONIK AG, D-42657 Solingen

**4.0 Settings**

**Vibrating frequency:**

The units can operate with feeders which have a frequency of 50 Hz or 100 Hz, ie. 3000/6000 vibs/min. (60 Hz or 120 Hz, ie. 3600/7200 vibs/min). The mechanical frequency is determined externally, by the use of a link between terminals 19 and 20; without link = 50 Hz, ie. 3000 vibs/min. and with link = 100 Hz, ie. 6000 vibs/min

**Set point source:**

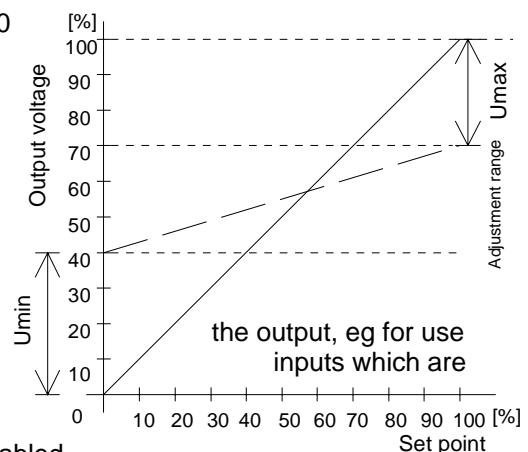
The set point of the feeder throughput can be derived from a 10 kΩ Potentiometer, an external control voltage 0-10 V, DC or an external control current 0(4) - 20 mA, DC. The connection terminals for the set point source are isolated from the mains. The min. and max. limits of the adjusting range can be adapted to the operating range of the feeder from trimming potentiometer which are accessible from extern, so that the full adjusting range of the set point is always available.

**Enable:**

Two enable inputs are provided for power free switching of with other control units, such as a track controller. These isolated from mains can be operated from an external contact or with a signal voltage 12-24 V, DC.

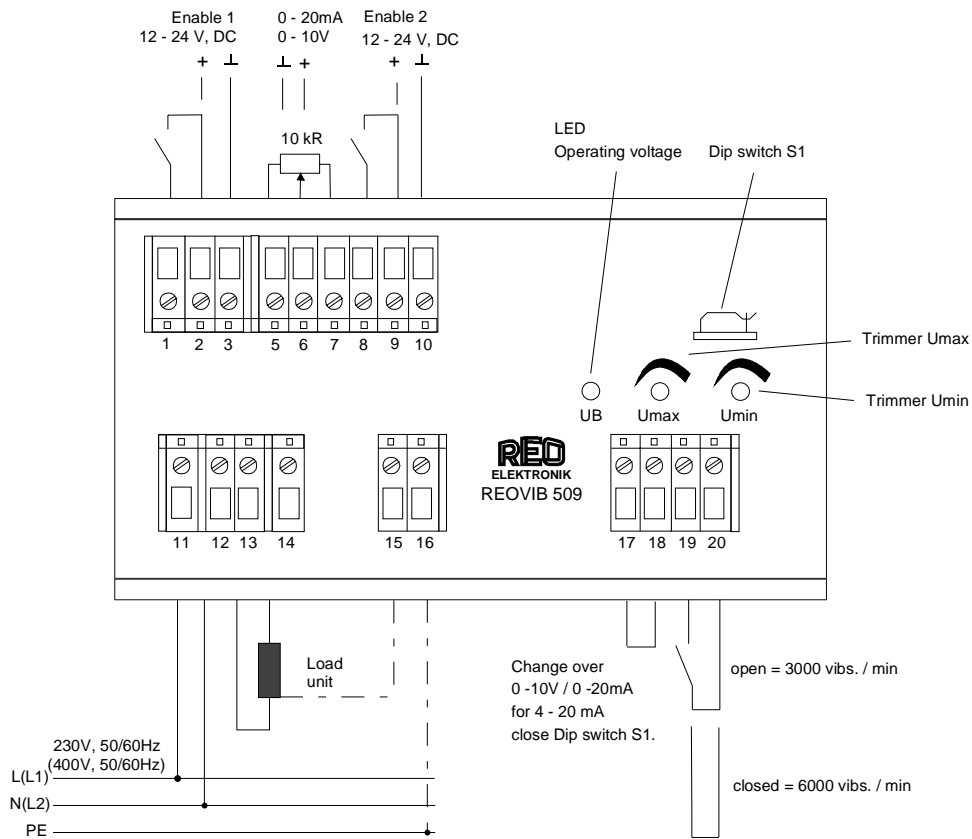
Effects: contact closed is. control voltage available = output enabled.

Effects of the Umin and Umax trimmer

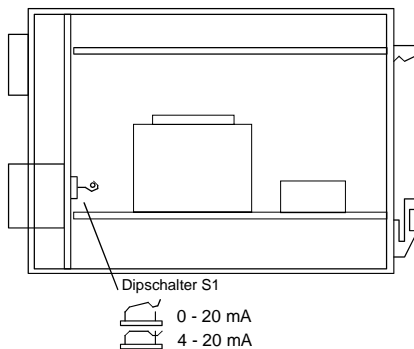


**The unit works only when both enable inputs are closed.**

**5.0 Connection diagram**



**5.1 Change-over set point current 0 - 20 mA to 4 - 20 mA**



To do this, it is necessary to remove the right side cheek of the enclosure (see side view).

**6.0 Dimensions**

