

Electronic Control Circuits For Electromagnetic Vibrators

“R” Series

GENERAL

The series “R” circuits (**R3F-R3F/S-R5F**) have been especially designed for controlling the amplitude of vibration in **industrial electromagnetic vibrators**.

Of modern conception, the system is based on a integrated circuit which guarantees perfect synchronization of the Triac firing pulse with the wave from of the working voltage under all conditions.

The controllers also include a suitable circuit for soft start with provision for choosing the ramp time (**0,2 sec./2 sec.**) and for temperature compensation of the phase angle.

Appropriately over-dimensioned power stages are provided to handle any overloads without interruption, whether operating at **50** or **60** Hz.

Highly linear range of adjustment, as well as provision for setting the maximum and minimum vibration limits complete the list of main features embodied in the series “R” controllers.

Vibration regulation is through an external potentiometers (see enclosed wiring diagram) and **ON-OFF** type control with external low power contact for weighing and batching system (also for high currents).

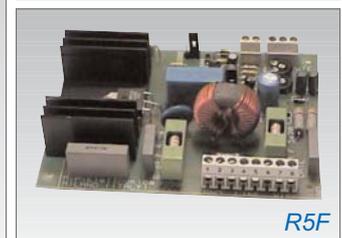
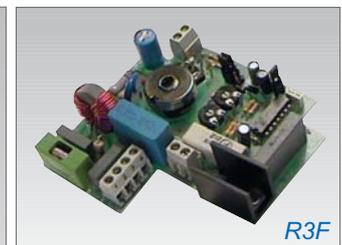
The controllers can be supplied either in our standard configuration or else in a new circuit configuration or customized box, with no alteration of the electrical reliability characteristics.

Furthermore we should be willing to provide our costumers with technical service on a continuous basis for improved utilization of the product, and the creation of new accessory products.

The **series “R”** circuits are supplied already set in standard version.

However access may be made to the PC board for re-adjustments of the minimum and maximum limits.

When ordering, please state the required model and working voltage.



In the box **R3F-R5F** is possible to insert **PRX92** circuit for electronic and mechanical sensor.

ELECTRICAL CHARACTERISTICS

TENSION OF FEEDING: 230V +/- 5% 50/60Hz

CONSUMPTION: 1,5W max

CURRENT MAX: 2,5 A - 3,15A - 6,3A (RMS)

FUSES: double (2,5A/3,15A/6,3A) F 250V 5x20 H 1500 A

LOAD MIN.: 50 mA (RMS)

POTENTIOMETER OF REG.: 100K linear

FREQUENCY OF VIBRATION: 3000/6000 cycles to minute (50Hz)

TIME OF RAMP: 0,2 sec. or 2 sec. (modifiable)

REGULATION MIN.: 80V +/- 30%

REGULATION MAX: 220V - 30%

DEGREE OF POLLUTION: 2

POSITION OF ASSEMBLAGE: horizontal or vertical

DEGREE OF PROTECTION: IP54 in box (IP00 only circuit)

TEMPERATURE OF STORAGE: -15 °C / + 80 °C

TEMPERATURE OF OPERATION: -5 °C / + 45 °C

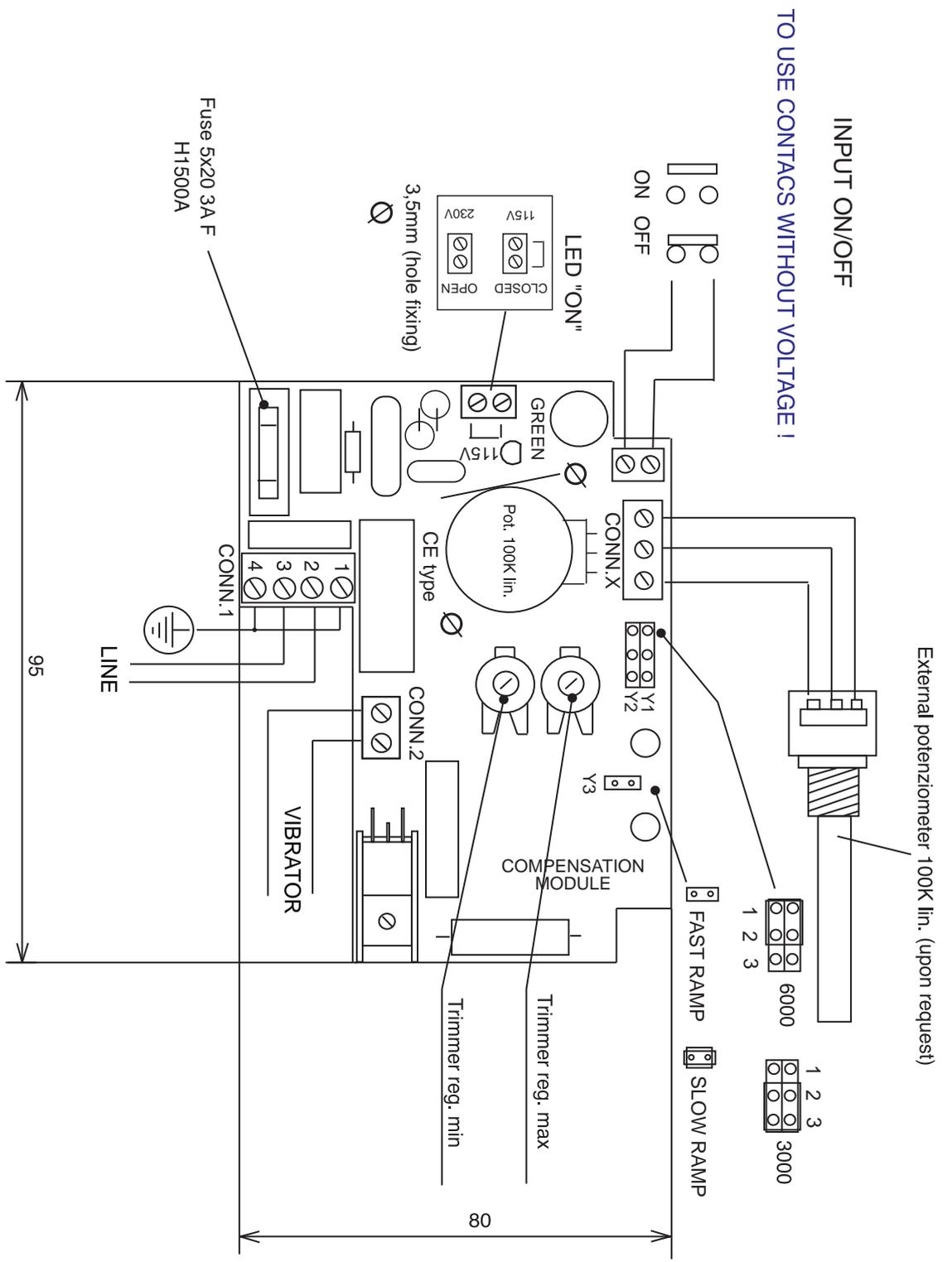
RANGE OF RELATIVE HUMIDITY: 80% till to 31°C

INSTALLATION CLASS: II

ALTITUDE: till to 2000 meters

EUROPEAN NORMS: EMC CE

GUARANTEE: 1 year (from date on circuit)



SKETCH AND CHARACTERISTICS TECHNIQUES SUBJECT TO MODIFICATIONS WITHOUT WARNING.

NOTE :
 When change from 3000 to 6000 (vibration at minute) or from 6000 to 3000 to control MIN vibration.

NOTE :
 If You are used only the electronic circuit (IP00) insert it and cable it in a container that could guarantee an excellent safety degree respecting the Normative European in force and isolate the terminals of the potenziometer with the little rubbers in endowment. Each responsibility from a wrong use of the electronic circuit is declined.

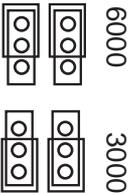
Description: CONTROL CIRCUIT R3FC (STABILIZED)



CODE	REV	DATE	DRAFTSMAN	SHEET
DTR3FC	00	02/03	E. PEDRAZZI	1/1

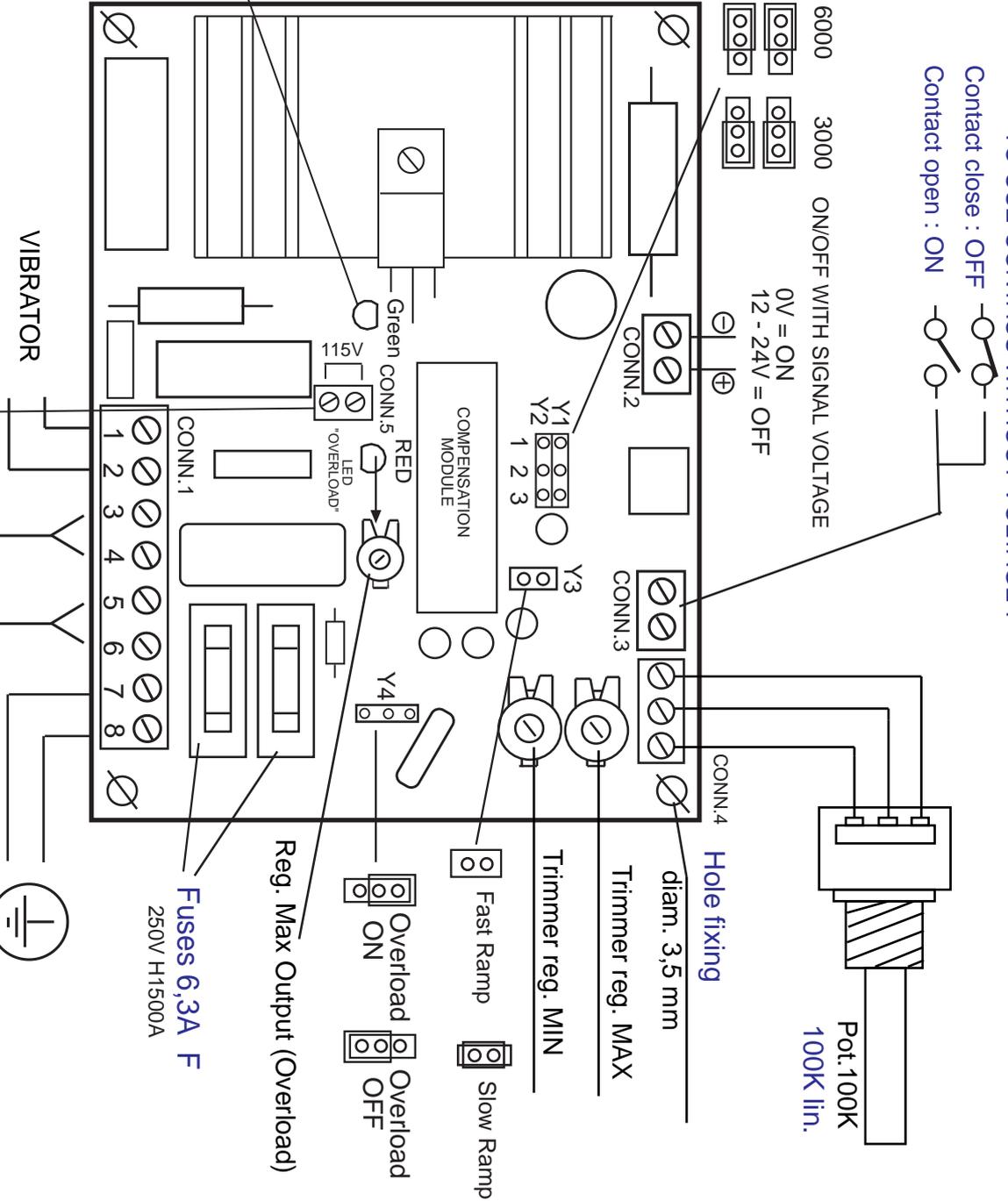
TO USE CONTACTS WITHOUT VOLTAGE !
 Contact close : OFF
 Contact open : ON

Jumper 1-2 : 6000 vib./min.
 Jumper 2-3: 3000 vib./min.

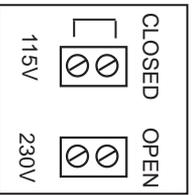


ON/OFF WITH SIGNAL VOLTAGE
 0V = ON
 12 - 24V = OFF

NOTE :
 When change from 3000 to 6000 (vibration at minute) or from 6000 to 3000 to control MIN vibration.



NOTE :
 If You are used only the electronic circuit (IP00) insert it and cable it in a container that could guarantee an excellent safety degree respecting the Normative European in force and isolate the terminals of the potenziometer with the little rubbers in endowment. Each responsibility from a wrong use of the electronic circuit is declined.



Dim. circuit : 122 x 92 mm.
 Measure boring : 112 x 82 mm.

SKETCH AND CHARACTERISTICS TECHNIQUES SUBJECT TO MODIFICATIONS WITHOUT WARNING.

Description: CONTROL CIRCUIT R5FC (STABILIZED)



CODE	REV	DATE	DRAFTSMAN	SHEET
DTR5FC	00	02/03	E. PEDRAZZI	1/1