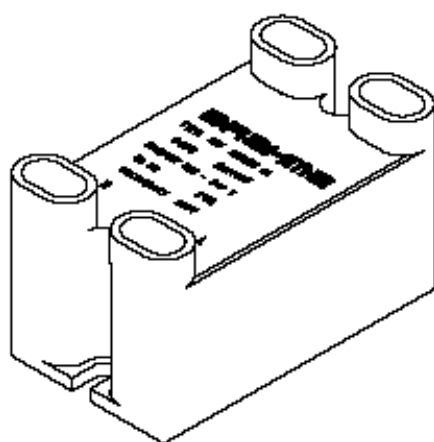


## AR1 – RC1 SERIES

### ACCESSORIES FOR FLAME DETECTION IN LIVE-LIVE OR LIVE-NEUTRAL MAINS SUPPLY WITHOUT EARTH CONNECTION



#### DESCRIPTION

In case of mains supply with unearthed neutral, for a correct flame detection the controllers provided with a built-in ignition transformer (SR3/TR... AT5/TR...etc. and their by-products) require an electrical connection between the burner mass and terminal 2 (neutral) of the controller. This connection can be carried out by a RC circuit, a prewired group named RC1. Both of its conductors must be connected respectively to the earth terminal ( $\text{⏏}$ ), a yellow-green wire, and terminal 2, a black wire.

In case of single-ended live-live mains supply, the voltage between the detection electrode and the burner mass can be not enough to guarantee the correct functioning of the controller. This inconvenience is eliminated by employing Brahma isolation transformer type AR1.

As it is well shown in the below wiring diagram, the secondary winding of the transformer is connected in series to the detection electrode. The voltage between electrode and burner mass is increased notably so as to guarantee a safe functioning of the controller

**Warning:** in order to make the installation easy the terminals of AR1 are numbered: not respecting polarity while connecting the primary or the secondary winding compromises the controller efficiency.

These components are usualness for the other Brahma controllers which have a built-in isolation transformer, such as for example SR3 – VE3.2 – M300 – MF2 controllers, etc.

Fig. 1 shows the traditional wiring diagram.

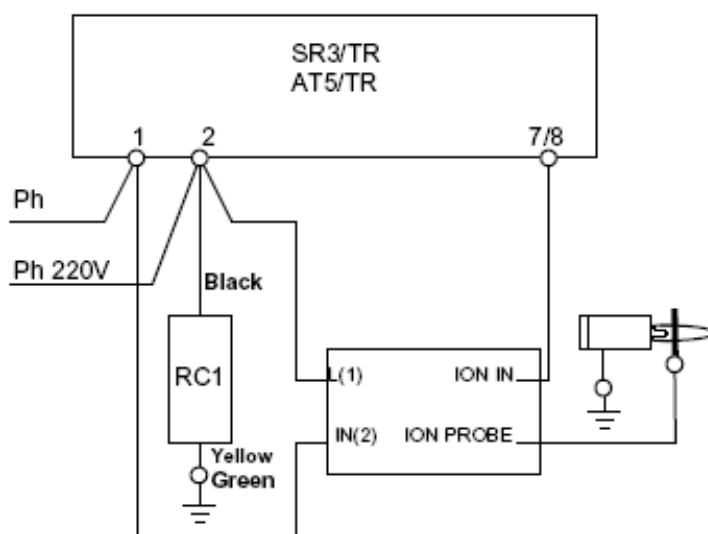


Fig. 1

## TECHNICAL FEATURES

### AR1 transformer:

There are various versions of AR1 transformer. The difference between these versions consists in the supply voltage and the secondary winding :

L (1) N (2)	ION IN - ION PROBE
220 - 240V	110 - 120V
220 - 240V	260 - 280V
110 - 120V	260 - 280V

- 6,3 mm male fast-on terminal
- Frequency 50-60Hz
- Power 2VA

### RC1 device:

- Epoxy resin isolation
- Flexible conductor terminals
- Polycarbonate container

## OVERALL DIMENSIONS

Fig. 2 and Fig. 3 show respectively the main dimensions of AR1 transformer series 01 and of RC1 group.

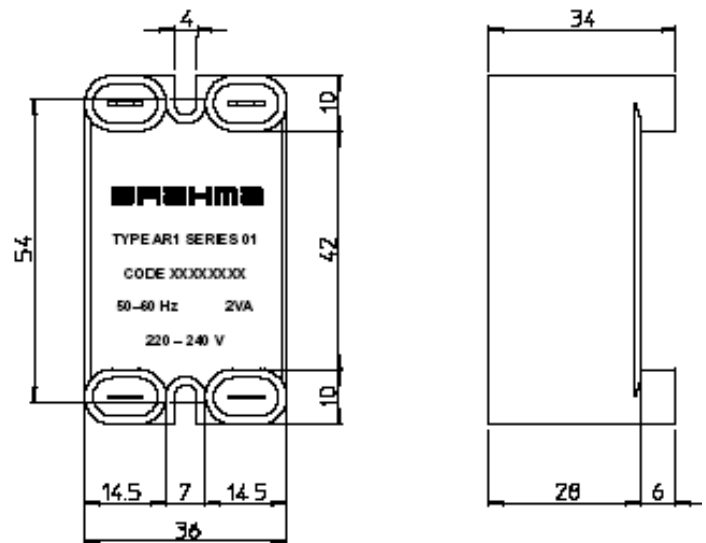


Fig. 2

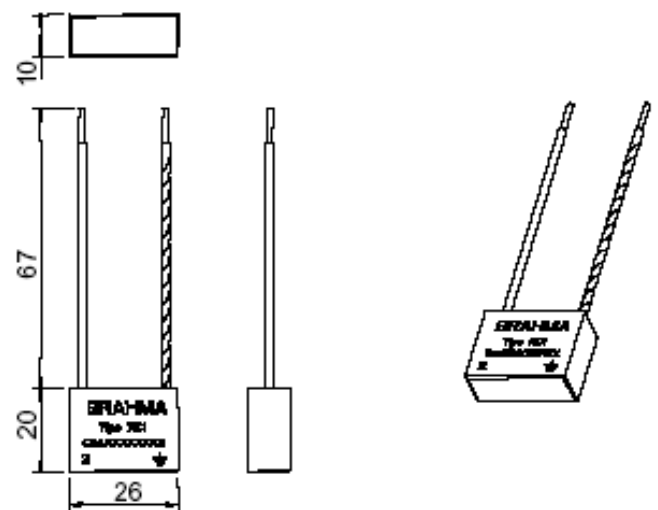


Fig. 3

System Gaz  
Poland 04-549 Warsaw  
Street Korkowa 167  
Tel.fax. +48 022 812-05-04

Dystrybutor BRAHMA S.p.A. w Polsce  
[www.systemgaz.com.pl](http://www.systemgaz.com.pl)  
[systemgaz@hoga.pl](mailto:systemgaz@hoga.pl)