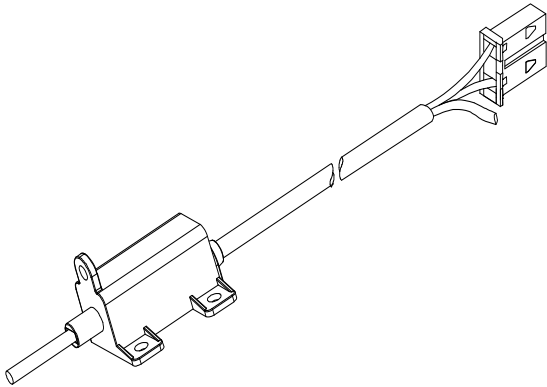


# REMOTE IGNITION TRANSFORMERS

## Type TR2...



### DESCRIPTION

The capacitive-discharge remote ignition transformers type TR2.. are generally used for the ignition of atmospheric gas burners installed in wall-hung boilers, water heaters, hot air generators, convectors, floor-standing boilers, etc.

They have been designed to reduce to a minimum the electromagnetic interference generated by the ignition discharge. In fact, the structure of these transformers enables them to be mounted close to the ignition electrode, thus reducing to a minimum the length of the high voltage cable producing most of the irradiated interference. Thanks to their various fixing and connection possibilities and numerous customizations, these transformers can be easily fitted to any type of application.

For its operation, the TR2.. transformer needs a special electronic circuit which is incorporated in flame control and safety units (among which the FC.. modules, the CM..FR control units and the DMR.. DTMR... control units), which are also equipped with a filter against conducted interference.

If necessary, the transformers can also be fitted with resistors for a further reduction of irradiated interference.

The transformers are covered by the Italian patent no. 01289096 granted on 25.09.1998 for:

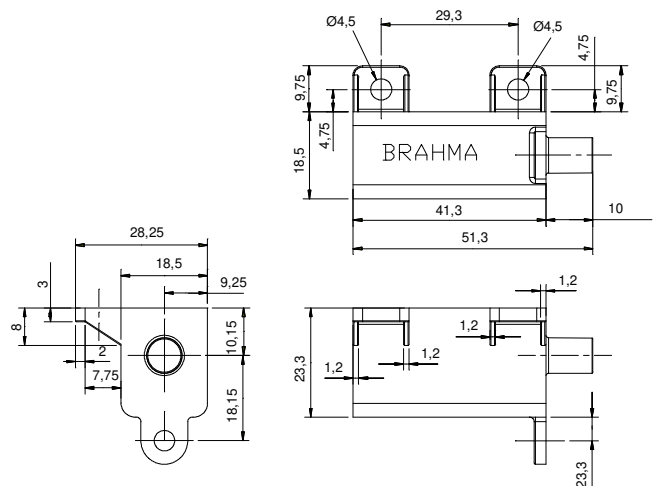
An ignition device for a flame burner or the like permitting a limitation of radio interferences.

### TECHNICAL DATA

- Operating temperature range - 20°C + 60°C
- Protection degree IP00
- Recommended distance between the electrodes: 2-4 mm
- Max. ignition cable length: 1 m
- Weight 55 gr approx.
- Output voltage: 15 kV standard  
18 kV on request
- Input power (with standard driving circuit): 2.5VA

### OVERALL DIMENSIONS

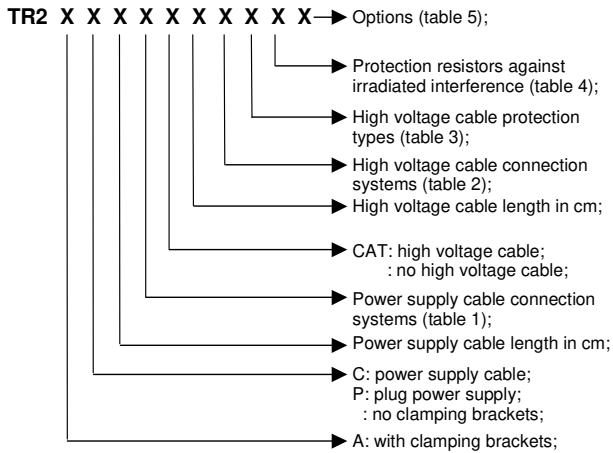
The transformers can be fixed using screws type M4x10.



## CONSTRUCTION

The primary and secondary windings with ferrite nucleus are immersed in a kind of resin ensuring a high electrical insulation.

The transformers of this series are available in different versions according to the following options:



Options	Description
	15 kV output voltage (Spark ignition energy 5.9 mJ)
M	For single-electrode control units
H	18 kV output voltage
N	Grey enclosure
J	90° PVC power supply cable

Table 5

Part reference example:

“TR2/A\_C100S3\_CAT30T4PS R2K7 H “: refers to a TR2 with clamping brackets, power supply cable length 100 cm (connector included), Stelvio 3-pole connector, high voltage cable length 30 cm with female cylindrical terminal diam. 4mm, silicone protection, 2.7 kΩ resistor and 18 kV output voltage.

## CONNECTION

The various available connection possibilities and options include option M; this option indicates that the transformer is used in single-electrode applications. In this case, the secondary high voltage winding wire, which is usually connected to Earth, and therefore yellow/green-coloured, is connected to the safety device detection input to carry out ignition/detection functions; in these applications the wire is white-coloured.

## INSTALLATION

- Connect and disconnect the ignition transformer only after switching off power supply.
- Respect the applicable national and European standards (e.g. EN 60355-1 / EN 50165) regarding electrical safety.
- Make sure the earth of the transformer and the earth of the electrical system are well connected (in no-single-electrode versions).
- The device can be mounted in any position.
- Avoid placing high voltage cables close to other cables.
- Make sure the protection degree is suitable to the system.
- Reduce the ignition cable length to a minimum (this reduces stray capacitance and the possibility that the ignition cable acts like an antenna transferring interference to the nearby cables);
- Make ignition cables follow a separate path close to ground planes (this reduces the influence of interference on the remaining electrical wires);
- Arrange a single earth centre, thus preventing earth conductors from creating ring paths.

Power supply cable	Description
S2	Stelvio 2-pole connector
S3	Stelvio 3-pole connector
M2	Molex 2-pole connector
M3	Molex 3-pole connector
M4	Molex 4-pole connector
F28	Female fast-on 2.8 mm
F48	Female fast-on 4.8 mm
F63	Female fast-on 6.3 mm
TC	Point terminals
SN	Tin-plated

Table 1

High voltage cable	Description
T4	Female cylindrical terminal Ø 4 mm
F28	Female fast-on 2.8 mm
FP28	Flat male fast-on 2.8 mm
TF63	Female cylindrical terminal Ø 6.35 mm

Table 2

Protection	Description
	No protection
PS	Silicone protection
PD	Straight protection
PC	90° protection

Table 3

Resistors	Description
1k	1 kΩ resistor
2k7	2.7 kΩ resistor

Table 4

**ATTENTION ->Company Brahma S.p.A. declines any responsibility for any damage resulting from the Customer's interfering with the device.**

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