

## High frequency ignition unit

**For power gas burners of unlimited rating.  
With plug-in ignition and power supply cables,  
designed to fit beneath the burner safety  
control box.**

### INTRODUCTION

The ZT 931 high frequency ignition transformer is suitable for use with power gas burners of unlimited rating. The ZT 931 enables a big spark deformation on burners with a high fire-rating or high combustion-air velocity. In addition to this, it generates the lowest electromagnetic interferences of all known electronic ignition devices, which is especially important if the burner has to comply with EN 55014. The ZT 931 combines a low power consumption with a low inrush current. The power connector is compatible with the widely used 3-wire connector. A replacement with a plugable coil trafo is therefore possible without any problems.

### CONSTRUCTIONAL FEATURES

A transistorised oscillator produces a high frequency voltage, which is then increased to 14 kV by a conventional iron-cored transformer. Despite the very compact dimensions of the ZT 931 ignition device, it has an outstanding performance in comparison to conventional stray field ignition transformers. The high frequency voltage produces an interrupting arc with high thermal energy and ideal ignition properties. The dimensions of the housing and fixing holes are such that it can be mounted underneath the burner control box wiring base. The power supply for the ZT 931 is provided in the form of a 3 pin AMP type socket connection with a corresponding plug and cable supplied.

In order to meet all likely requirements, the ZT 931 is available in 2 versions:

- ZT 931 4.0 mm pin to suit standard ignition cable connectors, e.g. for pre-assembled "Teflon" H.T. cables.
- ZT 931 1.0 mm pin to suit 7.0 mm silicon H.T. cable in conjunction with the Satronic clip.

### INSTALLATION INSTRUCTIONS

The applicable regulations must be observed when mounting the device and carrying out the electrical connections. Particular attention must be given to method used to instal the H.T. cables. Avoid unnecessary lengths, sharp bends over hard edges, extremely high temperatures etc., any of which could give rise to reduced performance or possible problems. For trouble-free operation, the correct spark gap at the ignition electrodes must be observed, supply voltage reductions of minus 15% and low as well as high ambient temperatures can give rise to problems. If this is incorrect, see "Technical data" for recommended settings. The positioning of the H.T. ignition cables with regard to TV and radio interference is also extremely important. The cables should be kept short, run as close together as possible and should not cross or be in contact with any other power cables or fittings.

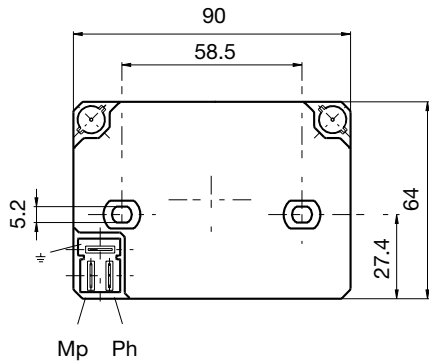
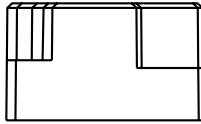
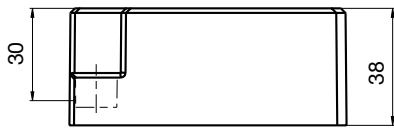


### TECHNICAL DATA

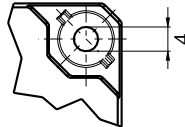
|                                 |   |
|---------------------------------|---|
| Supply voltage                  | 220 / 240 V (-15... +10%)<br>50 Hz (40 - 60 Hz) |
| Connections:                    |   |
| Live / neutral / earth          | 3 AMP plug type terminals<br>6.30 x 0.8 mm      |
| High tension                    | ø 4 mm pin or ø 1 mm pin                        |
| Primary current                 | 0.25 A  |
| Rating                          | Intermittent,<br>33 % E.D. in 3 minutes         |
| Interference level              | <N (VDE 0875)                                   |
| Ignition voltage                | 1 x 14 kV                                       |
| Secondary current               | 40 mA rms                                       |
| Secondary frequency             | 20 kHz  |
| Spark gap                       | 3 - 5 mm  |
| Ignition cable                  | plug-in type                                    |
| Insulation standard             | IP 40   |
| Permissible ambient temperature | -10° C... +60° C                                |
| Mounting attitude               | any   |
| Weight                          | 280 g   |

The ZT 931 is also available for a supply voltage of 110/120 V.

## ZT 931 DIMENSIONS

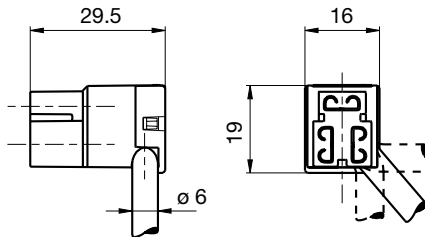


Version HF-pin  $\varnothing$  1 mm

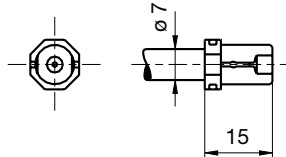


Version HF-pin  $\varnothing$  4 mm

## ZT 931 POWER CABLE PLUG DIMENSIONS



## HIGH VOLTAGE CABLE CLIP DIMENSIONS



## ORDERING INFORMATION

| ITEM  | DESIGNATION                             | ITEM NO. |
|---|---|----------|
| Ignition Unit   | ZT 931 pin $\varnothing$ 1 mm           | 13131    |
| or  | ZT 931 pin $\varnothing$ 4 mm           | 13134    |
| Power cable   | Power cable ZT 900, 0.3 m               | 7283001  |
| Ignition cable with clip, suitable for Item no. 13131 | Silicon cable $\varnothing$ 7 mm, 0.4 m | 7274009  |
| Clip separat to silicon cable                         | High Voltage Cable Clip                 | 74993    |

The above ordering information refers to the standard version.  
Special versions are also included in our product range.

Specifications subject to change without notice.

# ZT 931

**satronic**

A Honeywell Company

Satronic AG  
Honeywell-Platz 1  
Postfach 324  
CH-8157 Dielsdorf