



**SIT**Group

**8000 OXYPROTECTOR®**  
**9000 OXYPILOT®**



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**ODS - OXYGEN DEPLETION SYSTEM**

**OP**

.....  
w w w . s i t g r o u p . i t



## 8000 OXYPROTECTOR

Oxygen Depletion Systems (ODS) with single flame mainly for unflued appliances of catalytic and infrared type supplied with NG, also suitable for particular blue flame burners. All components are integrated to guarantee performance and for quick and easy assembly on to gas appliances.

### PROTECTED FLAME FOR NG USAGE

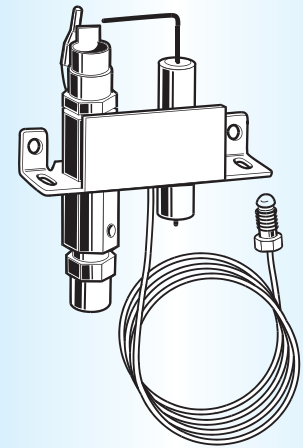
- Single long life flexible thermocouple wire
- Suitable for all 2<sup>nd</sup> family gases
- Complies with current European Norms
- No need to supply stabilized gas pressure within EN range
- Due to the particular design of the pilot, gas pressure and gas type do not substantially influence the performance
- Fail safe device

## 8200 OXYPROTECTOR

Pilot suitable for appliances burning NG with wide application flexibility. Suitable for appliances equipped with atmospheric, catalytic or infrared burners. As with all OP pilots all components are integrated to guarantee performance for quick and easy assembly on to gas appliance.

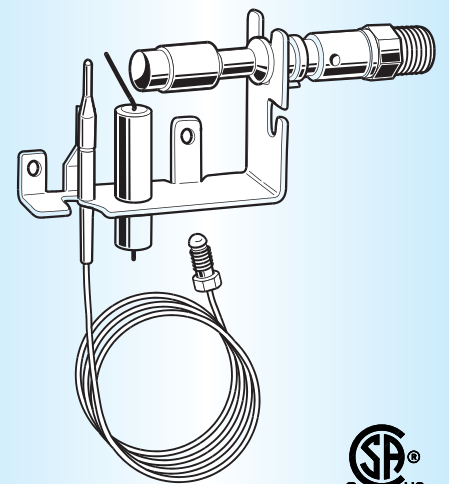
### PROTECTED FLAME FOR NG USAGE

- Single long life flexible thermocouple wire
- Suitable for all 2<sup>nd</sup> family gases
- Complies with the current European and CSA Norms
- No need to supply stabilized gas pressure within EN and CSA range
- Due to the particular design of the pilot, gas pressure and gas type do not substantially influence the performance
- Fail safe device



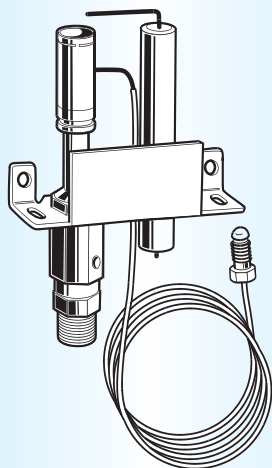
### TECHNICAL CHARACTERISTICS

Gas type  
**G20; G25**  
Flow with air [d=1] at 50 mbar  
**25 ÷ 50 l/h**  
Gas consumption with G20 at 10 mbar  
**160 ÷ 300 W**  
Thermocouple resistance  
**~18 mΩ**  
Output voltage without load after 60 sec. with G20 at 10 mbar  
**≥12 mV**



### TECHNICAL CHARACTERISTICS

Gas type  
**G20 (Gas A)**  
Flow with air [d=1] at 50 mbar  
**~ 26 l/h**  
Gas consumption with G20 at 10 mbar  
**~166 W (575 BTU/h)**  
Thermocouple resistance  
**~18 mΩ**  
Output voltage without load after 60 sec. with G20 at 10 mbar  
**≥12 mV**



### TECHNICAL CHARACTERISTICS

Gas type

**G30; G31**

Flow with air [d=1] a 50 mbar

**~7.5 l/h**

Gas consumption with G30 at 30 mbar

**~145 W**

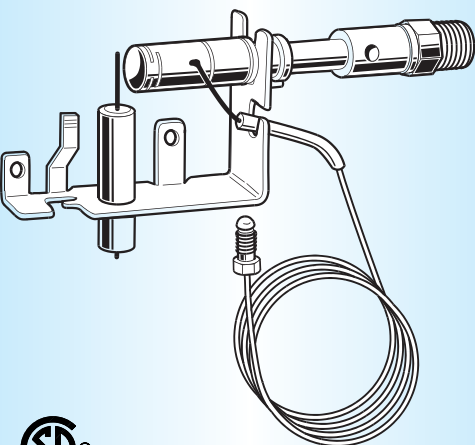
Thermocouple resistance

**~18 mΩ**

Output voltage without load after

60 sec. with G30 at 30 mbar

**≥12 mV**



### TECHNICAL CHARACTERISTICS

Gas type

**G30 (Gas D); G31 (Gas E)**

Flow with air [d=1] a 50 mbar

**~9.8 l/h**

Gas consumption with G30 at 30 mbar

**~166 W (575 BTU/h)**

Thermocouple resistance

**~18 mΩ**

Output voltage without load after

60 sec. with G30 at 30 mbar

**≥12 mV**

## 8300 OXYPROTECTOR

Oxygen Depletion System (ODS) LPG pilot with single flame, used mainly for unflued appliances using catalytic or infrared type burners. Also suitable for particular blue flame burners, all components are integrated to guarantee performance. Quick and easy assembly on to gas appliance.

### PROTECTED FLAME FOR LPG USAGE

- Single long life flexible thermocouple wire
- Suitable for all 3<sup>rd</sup> family gases
- Complies with current European Norms
- No need to supply stabilized gas pressure within EN range
- Due to protected flame (inside the pilot burner) the functioning is not influenced by air currents
- Due to the particular design of the pilot, gas pressure and gas type do not substantially influence the performance
- Fail safe device

## 8400 OXYPROTECTOR

Pilot suitable for appliances burning LPG gas with wide application flexibility. Suitable for appliances equipped with atmospheric, catalytic or infrared burners. As with all OP pilots all parts are integrated to guarantee performance. Quick and easy assembly on to gas appliance.

### PROTECTED FLAME FOR LPG USAGE

- Single long life flexible thermocouple wire
- Suitable for all 3<sup>rd</sup> family gases
- Complies with current European and CSA Norms
- No need to supply stabilized gas pressure within European and CSA range
- Due to protected flame (inside the pilot burner) the functioning is not influenced by air currents
- Due to the particular design the gas pressure and gas type do not substantially influence pilot performance
- Fail safe device



# 85/86/8700 OXYPROTECTOR

Oxygen Depletion Systems (ODS) pilot with single flame for LPG and NG unflued gas appliances such as catalytic and infrared one. All components are integrated to guarantee performance and to enable easy and more efficient assembly to the gas appliance. The multigas version works with 2<sup>nd</sup> and 3<sup>rd</sup> family gases by applying the appropriate injector.

## 8500 UNPROTECTED FLAME FOR LPG USAGE

- Single long life flexible thermocouple wire
- Suitable for all 3<sup>rd</sup> family gases
- Complies with current European Norms
- No need to supply stabilised gases pressure within EN range
- Basic ODS with high performance and competitive cost
- European Patent

## 8550 UNPROTECTED FLAME FOR LPG USAGE

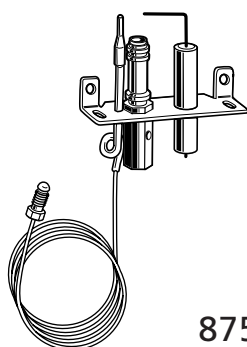
- This model is similar to the above type; the bimetal strip makes it suitable for usage on to critical applications (poor quality gases)

## 8600 UNPROTECTED FLAME FOR NG USAGE

- Single long life flexible thermocouple wire
- Suitable for all 2<sup>nd</sup> family gases
- Complies with current European Norms
- No need to supply stabilised gases pressure within En range
- Basic ODS with high performance and at a competitive cost
- European Patent

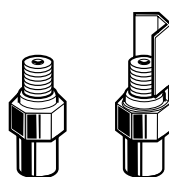
## 8750 MULTIGAS UNPROTECTED FLAME PILOT

- Suitable for both 2<sup>nd</sup> and 3<sup>rd</sup> family gases by applying the appropriate injector
- Performance and technical characteristics according to 8500 and 8600 Series configuration
- Pilot designed particularly for type B gas appliances equipped with Blue flame burner



8750 MULTIGAS VERSION

LPG      NG



## TECHNICAL CHARACTERISTICS

LPG

Gas type

**G30; G31**

Flow with air [d=1] at 50 mbar

**~7.5 l/h**

Gas consumption with G30 at 29 mbar

**~125 W**

Thermocouple resistance

**~18 mΩ**

Output voltage without load after 60 sec. with G30 at 29 mbar

**≥12 mV**

NG

Gas type

**G20**

Flow with air [d=1] at 50 mbar

**~19 l/h**

Gas consumption with G20 at 10 mbar

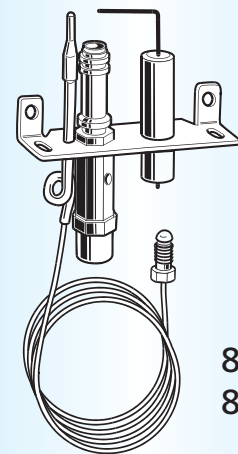
**~125 W**

Thermocouple resistance

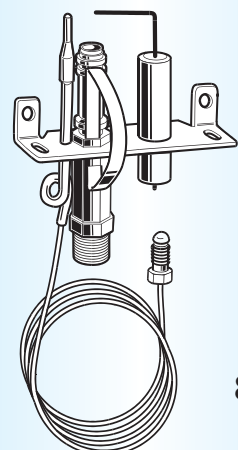
**~18 mΩ**

Output voltage without load after 60 sec. with G20 at 18 mbar

**≥12 mV**



8500 LPG  
8600 NG



8550



## TECHNICAL CHARACTERISTICS

LPG

Gas type

**G30 (Gas D); G31 (Gas E)**

Flow with air [d=1] at 50 mbar

~9.8 l/h

Gas consumption with G30 at 30 mbar

~145 W (502 BTU/h)

Thermocouple resistance

~18 mΩ

Output voltage without load after 60 sec. with G30 at 30 mbar

≥12 mV

NG

Gas type **G20 (Gas A)**

Flow with air [d=1] at 50 mbar

~26 l/h

Gas consumption with G20 at 10 mbar

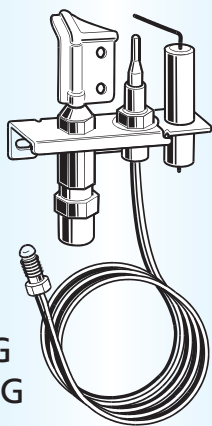
~166 W (575 BTU/h)

Thermocouple resistance

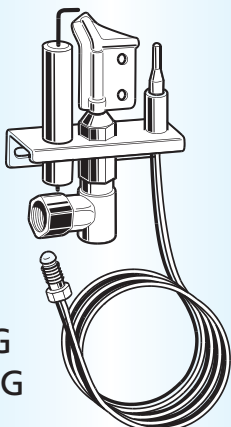
~18 mΩ

Output voltage without load after 60 sec. with G20 at 18 mbar

≥12 mV



9000 NG  
9200 LPG



9400 NG  
9500 LPG

## 9000 OXYPILOT

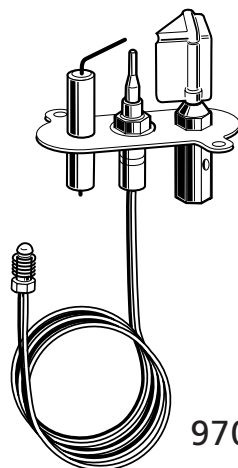
Two flame ODS with angled flame hood for an easier ignition of main burner. Used mainly on horizontal burners (decorative gas fires, instantaneous gas water heaters and gas boilers). It is a reliable device which solves many application difficulties due to its high performance.

### ODS PILOT FOR LPG AND NG USAGE

- Long life flexible thermocouple wire
- Three different configurations available according to application need; each of them suitable for 2<sup>nd</sup> and 3<sup>rd</sup> family gases.
- Comply with current European and CSA Norms
- No need to supply stabilised gas pressure within European and CSA range
- Due to the particular design of pilot, gas pressure and gas type do not substantially influence the performance
- Fail safe device
- European Patent

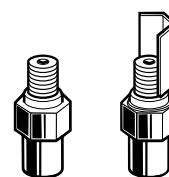
### OPTIONS AVAILABLE

- Multigas version suitable for both 2<sup>nd</sup> and 3<sup>rd</sup> family gases by applying the appropriate injector
- Bulkhead bracket option available
- Available pilot configuration suitable for ionisation flame controls
- Single wire thermocouple



9700 MULTIGAS VERSION

LPG NG





## INSTALLATION

OP ODS pilots comply with current safety standard. Nevertheless, their installation on appliances must be verified in accordance with specific standards for each application.

All the installation and adjustments operations must be carried out exclusively by qualified personnel on the basis of specific characteristics of the appliance. It is recommended to not tamper with sealed parts and do not remove markings. Avoid the device any knocks, falls, etc. Do not overpass the advised mounting torques. Prevent foreign matter from getting into the pilot application, in particular cleanliness of the pilot tube connection. To connect the device to gas pipes only use proper systems and tools, avoiding damaging of weak parts.

Installation on infrared or blue flame burners, take care that there is not radiation on thermocouple from burner flames. ODS and burner flames do not have to mutually interfere while providing good ignition.

Installation on catalytic panels must be made respecting proper distances in order to prevent damage to the catalytic panel from direct pilot flame, while providing good ignition.

Gas appliances require proper testing to verify these requirements.

### CONNECTIONS

The integrity of the gas inlet connection must be realised through the metal parts. No use of glue, tape or rubber gaskets are permitted. The connection of the gas pipe is done by using a proper nut and olive tighten to 7 Nm torque, using a wrench holding the device. While tightening the connection do not stress the pilot during this operation.

Connection of thermocouple to safety gas valve is made by using a max. torque of 300 Ncm (it is advisable to tighten by hand and then with proper wrench for 1/4 of turn).

Be careful do not overpass the max. advised torque for not damaging the safety valves, with the consequence of gas leaks.

### USAGE

To operate the device, push down fully the safety valve knob and igniting the gas through a spark or flame. It may be necessary make few tentative in case when appliance has not been in use for a long period of time or when just connected the gas supply. With established flame wait until thermocouple generates enough power to hold safety magnet of gas valve (usually about 8-15 sec).

Release the valve knob.

### MAINTENANCE

The device is not field serviceable, no maintenance is admitted. In case of malfunctioning replace the device with identical code number.

### GENERAL CHARACTERISTICS FOR OXYPROTECTOR AND OXYPILOT

*Gas connection*

**M10x1 Male or Female**

*Connection size*

**Ø 6; Ø 4 mm; 1/4"**

*Thermocouple length*

**from 350 mm to 1000 mm**

*Thermocouple connection*

**M8x1; M9x1; M10x1**

*Ignition electrode connection*

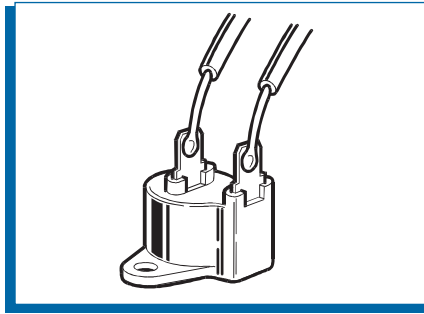
**pin Ø 1,5 mm; faston 2,8x0,5 mm**

Please refer to specific drawing for characteristics of each code.

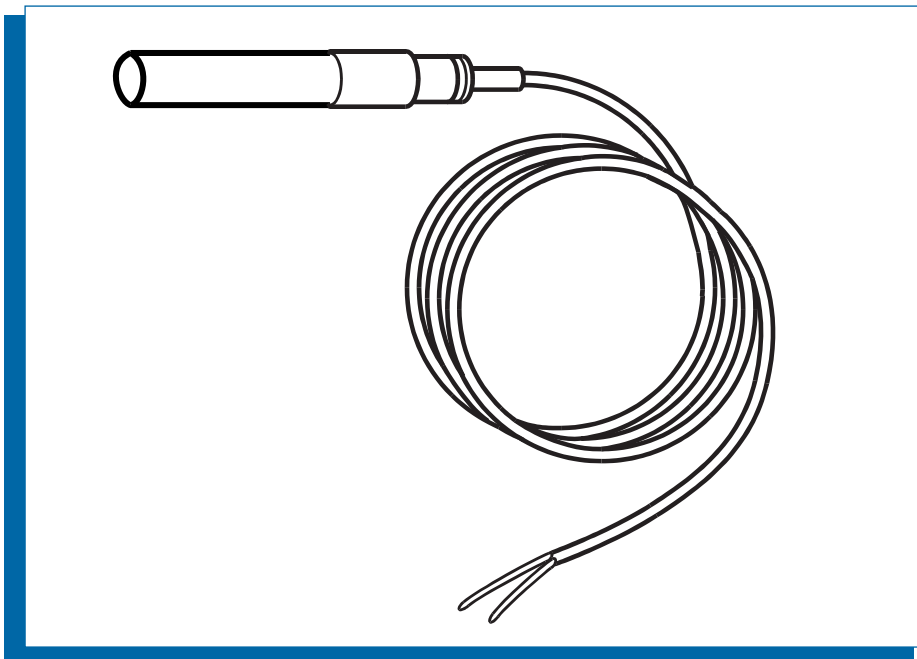


# AVAILABLE ACCESSORIES FOR OXYPROTECTOR AND OXYPILOT

## ANTITILT SWITCH FOR USAGE WITH OXYPROTECTOR AND OXYPILOT



## THERMOPILE FOR USAGE WITH OXYPROTECTOR CSA APPROVED





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