



SIT Group

# 630 EUROSIT

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MULTIFUNCTIONAL GAS CONTROL

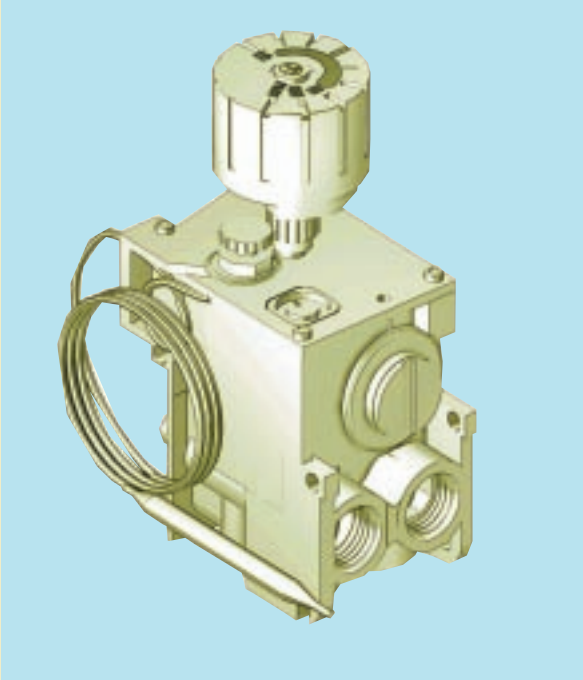


**SINGLE-KNOB CONTROL  
(TEMPERATURE ADJUSTMENT, PILOT, OFF)**

**COMBINED MODULATING-SNAP ACTION  
ON/OFF THERMOSTAT AT LOW SETTING**



## MULTIFUNCTIONAL THERMOSTATIC CONTROL



**Single-knob multifunctional control with thermoelectric safety device and: interlock device to prevent improper operation, pressure regulator and combined modulating-ON/OFF thermostat. No external power supply required.**

*630 EUROSIT is suitable for use with space heaters, convectors, storage water heaters, boilers, catering equipment and all gas appliances requiring temperature control.*

### MAIN FEATURES

Manually operated gas valve. (Single knob operation)  
Thermoelectric flame failure device.  
Snap acting ON/OFF and modulating thermostat. (Optional)  
Latching device (Interlok) which prevents incorrect ignition operation.  
Pilot outlet suitable for 3/16" or 1/4" tubing.  
Pilot flame adjustment.  
Inlet and pilot filter.  
3/8" NPT threaded gas inlets and outlets.  
Inlet/Outlet pressure test ports.  
Remote adaptor. (Optional)  
Pressure regulator. (Optional)

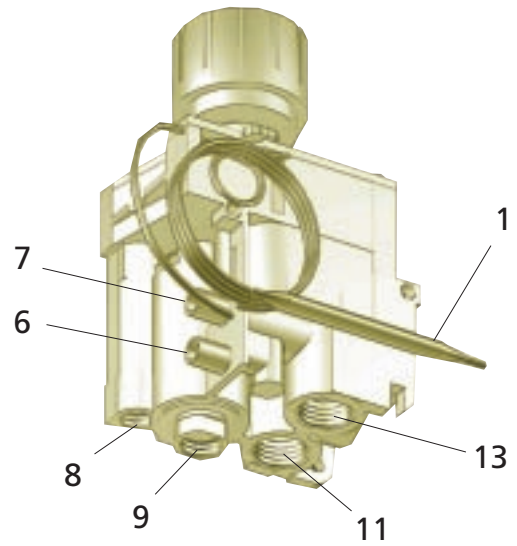
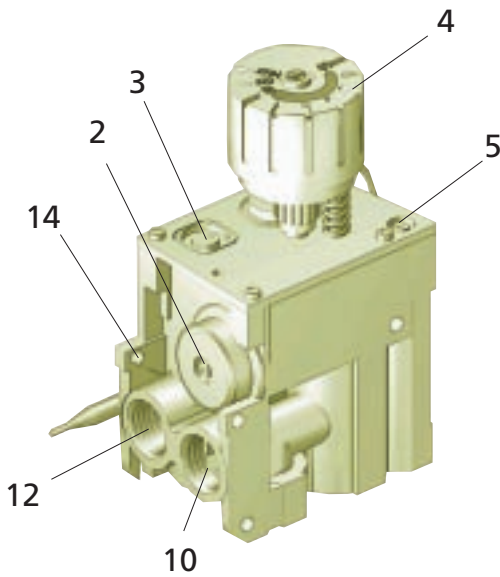
### ACCESSORIES

Main accessories available upon request:

- cover
- cover with piezoelectric ignitor
- pilot shear off nut and olive
- remote adaptor
- cables for piezoelectric ignitor
- threaded plugs to close inlets and outlets which are not used

## DESCRIPTION

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|--|--|
| <ul style="list-style-type: none"> <li>1 Temperature sensing bulb</li> <li>2 Outlet pressure adjustment screw<br/>(Version with pressure regulator)</li> <li>3 Minimum rate screw</li> <li>4 Temperature setting knob</li> <li>5 Pilot adjustment screw</li> </ul> | <ul style="list-style-type: none"> <li>6 Inlet pressure test point</li> <li>7 Outlet pressure test point</li> <li>8 Pilot outlet</li> <li>9 Thermocouple connection</li> <li>10-11 Gas inlet</li> <li>12-13 Gas Outlet</li> <li>14 Mounting holes</li> </ul> |
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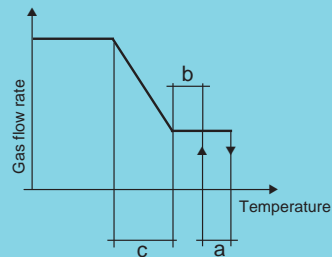
## TECHNICAL DATA

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Gas connections:</li> <li>• Mounting position:</li> <li>• Gas types:</li> <li>• Maximum inlet pressure:</li> <li>• Outlet pressure setting range:</li> <li>• Working temperature range:</li> </ul> | <ul style="list-style-type: none"> <li>3/8" NPT X 3/8" NPT</li> <li>Multipoise</li> <li>NG and LPG</li> <li>1/2 PSIG</li> <li>3.5" to 8.0" W.C. NG (8.0"-12.0" LPG)</li> <li>32 °F - 175 °F.</li> </ul> |
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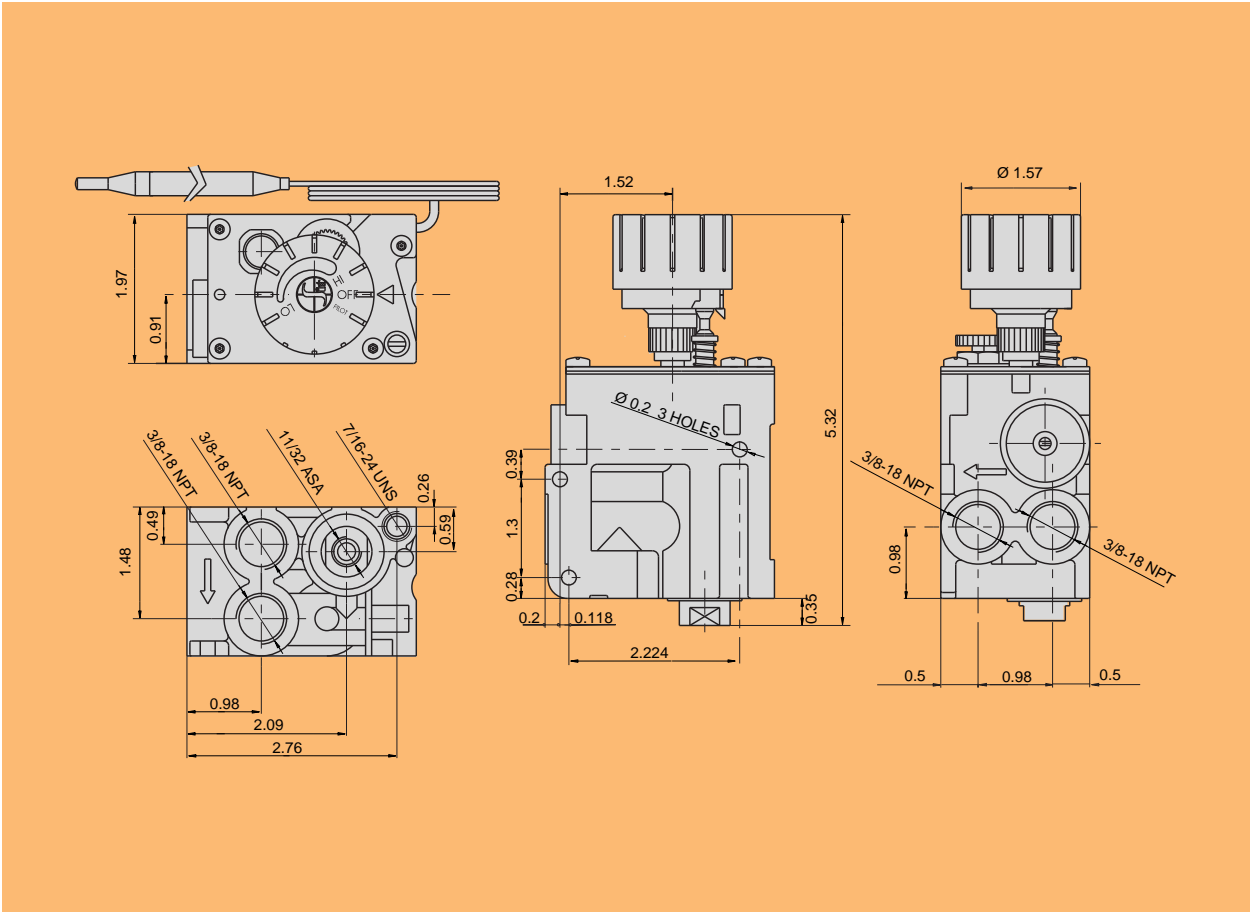
### THERMOSTAT FEATURES

Thermostat range	a	b	c
55-100 °F	2.7	2.7	1.8
55-118 °F	4.5	4.5	2.7

*Other ranges are available on request*



## DIMENSIONS



## CAPACITY

Capacity [BTU/hr]

NG No Pressure Regulator	NG Pressure Regulator
55.000	40.000

*The above capacities are based on Natural gas having a heating value of 1.000 BTU per cu. ft., and a specific gravity of 0.64 at a pressure drop of 1" W.C.*

*For Propane, (Liquefied Petroleum Gas), multiply by 1.62.*

*Pilot flow rate 2.5 °Ft<sup>3</sup> /hr at 0.5" Pressure Drop*

## OPERATION

### **Start up procedure**

Turn knob to the OFF position; wait 5 minutes, turn knob until it stops in the pilot position (PILOT) (fig. 1).

Depress knob and light the pilot, keeping the knob depressed for about 60 seconds.

Release the knob and check that the pilot flame stays on. If it goes out, repeat the ignition operations.



fig. 1

### **Temperature setting**

Turn the knob to the desired temperature setting. The maximum temperature is obtained with the knob turned fully counter-clockwise (HI position) (fig. 2).

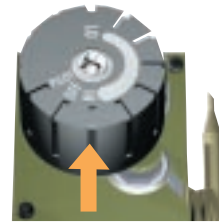


fig. 2

### **Temporary shut-down procedure**

To turn off the main burner only, turn the knob clockwise to the pilot position (PILOT).

### **Complete shut-down procedure**

Turn control knob to the OFF position (fig. 3).

### **WARNING:**

This control has an interlock device; after shutting off all gas flow, relighting of the pilot burner can not occur until the thermocouple has cooled; allowing the electromagnet to be released (approx. 60 seconds).

The gas control knob is designed to be used by hand. DO NOT use any tools during this operation. Damaged knobs may result in serious injury.



fig. 3

## REGULATOR CHARACTERISTICS

Range	Minimum Regulated Capacity (BTU/hr.)	Maximum Regulated Capacity (BTU/hr.)
NG 3.5"-8.0" W.C.	10.000	40.000

## INSTALLATION

630 EUROSIT valves conform to all current safety standards. All operations of installation, calibration, or regulation must be undertaken exclusively by qualified personnel following the instructions specified in this catalog and those in the instruction manual of the appliance in which this valve is installed. Any other operation should be avoided.

### **WARNING**

This control is not field serviceable, all adjustments must be done in the O.E.M. factory.

### ***Mechanical connections***

General recommendations: do not tamper with sealed parts. Do not loosen assembly screws. Do not remove labels. Avoid shocks to the valve (impact, falls, etc.) Remove inlet/outlet dust caps only at the time of installation. Do not exceed recommended torque values. Ensure that gas flow follows arrows on the valve body. Prevent foreign matter from entering the valve during mounting. In particular, check that the inlet/outlet pipes are clean. Mounting of Eurosit is to be done using the three mounting holes.

### ***Main gas connection***

The connection must be made using properly reamed pipes with 3/8" NPT thread. Apply a moderate amount of a good quality pipe dope and apply 23 Lb./Ft. of torque. The multi-functional control is provided with two main inlets and outlets. It is therefore necessary to close the inlet and outlet which are not used, by screwing the provided plug fully in. Torque 5.2 Lb./Ft.. Do not overtorque as this could cause distortion of pipe, leakage, and or malfunction of control.

### ***Pilot gas connection***

Connect pilot gas tubing using proper 1/4" or 3/16" shear off nut and olive. Tighten finger tight, plus one turn with a wrench to assure a good seal.

### ***Thermocouple connection***

Insert threaded end of thermocouple into control. Tighten the fixing nut finger tight, plus 1/4 turn with a wrench to assure a good electrical connection.

### ***Testing***

After all connections have been made, check all seals and gas connections for leaks, then set the appliance into operation to assure it is functioning correctly.

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## SETTINGS AND ADJUSTMENTS

### **Pressure readings**

Inlet pressure can be checked by turning captured screw (6) counterclockwise 2 or 3 turns then placing tube from gauge over test point. Outlet can be checked in the same manner as above, except by using captured screw (7). Warning: After taking pressure readings, be sure to turn captured screws clockwise firmly to reseal. Do not overtorque.

### **Setting the thermostat**

The thermostat (1) is set and sealed at the factory.

### **Gas flow**

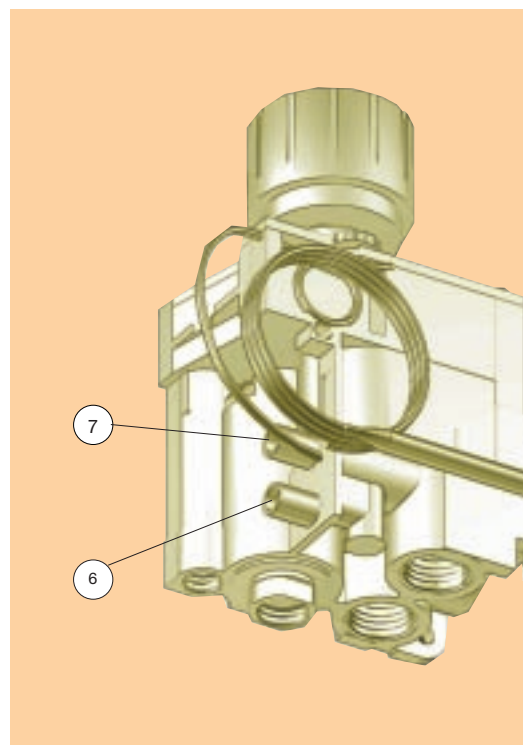
(Vented Units Only)

Maximum flow rate can be checked by cooling the thermostatic bulb below room temperature and turning the knob (4) counterclockwise to the HI position. Minimum flow rate can be checked by cooling the thermostatic bulb below room temperature and slowly turning the knob counterclockwise and stopping when you hear the snap. This flow rate is preset by the O.E.M. at the design stage, and is set with a pre-drilled minimum rate screw.

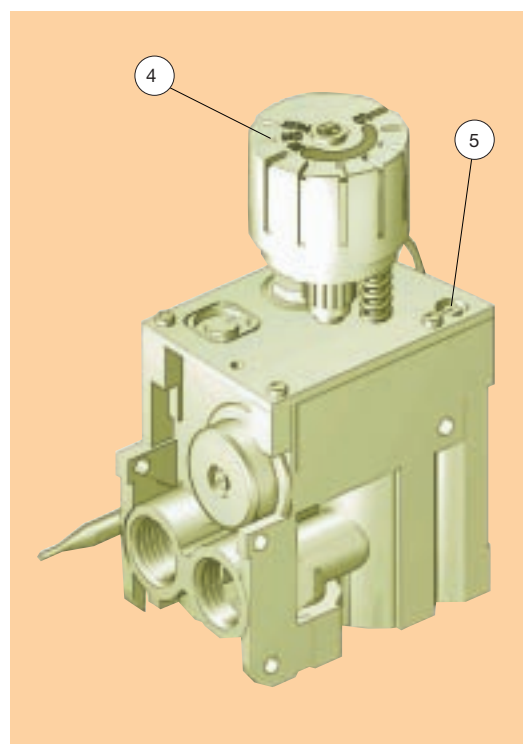
### **Pilot adjustment**

(Vented Units Only)

Use a screwdriver to adjust the screw (5) to achieve the desired pilot flame. Clockwise decreases the amount of gas to the pilot.

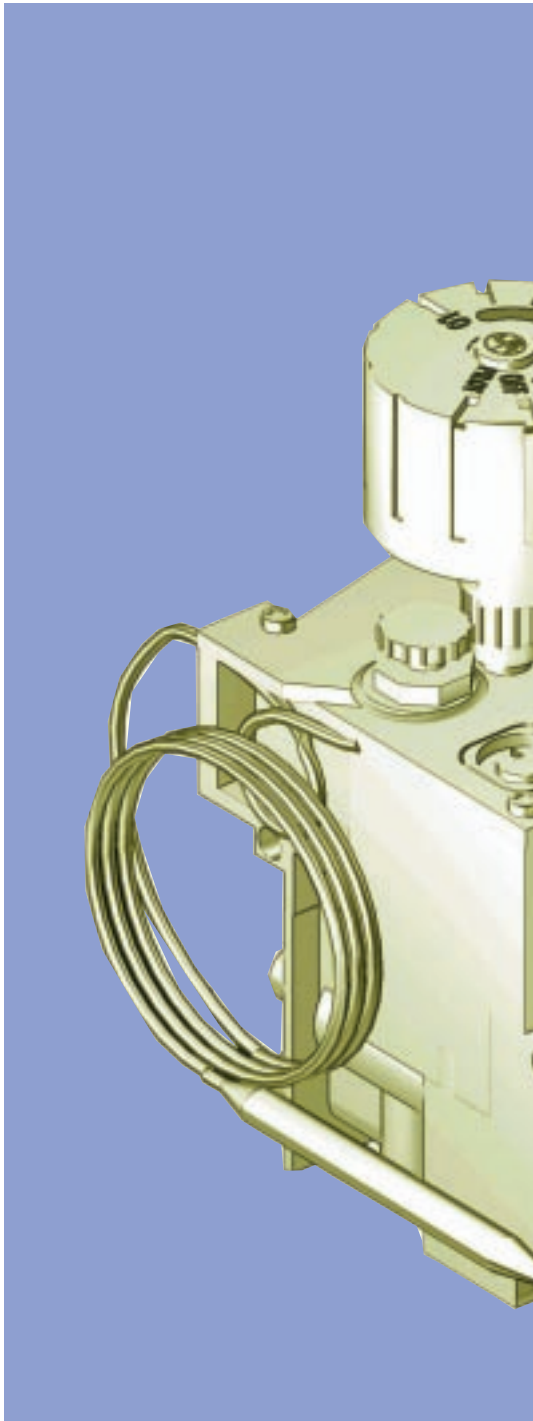


*Pressure readings*



*Adjusting the pilot gas flow*

630 EUROSIT



**Single-knob multifunctional control with combined modulating-ON/OFF thermostat, for gas appliances without external electric power supply.**

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