SIT Group

680 COMPOSIT

MULTIFUNCTIONAL GAS CONTROL

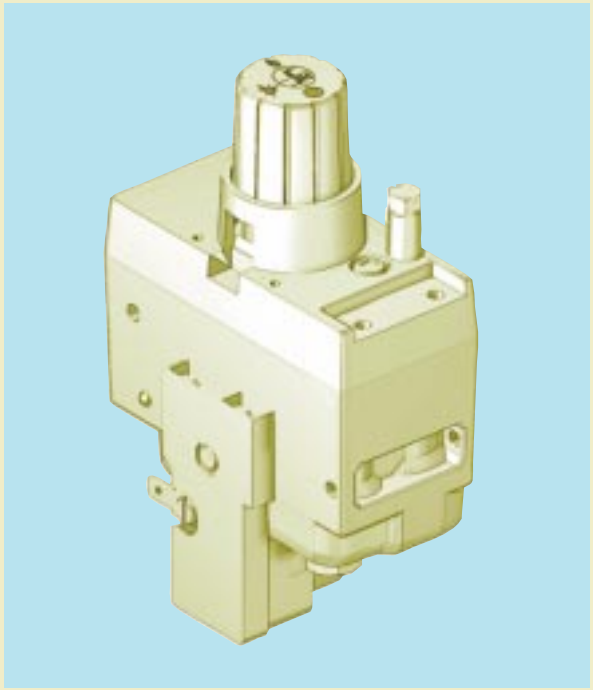
SINGLE-KNOB CONTROL (ON, PILOT, OFF)

THERMOELECTRIC SAFETY DEVICE

ON-OFF SOLENOID VALVE

PIN 63AN7060/1

ELETRICAL MULTIFUNCTIONAL ON-OFF CONTROL



680 COMPOSIT is suitable
for use with heaters,
boilers and catering equipment.

Multifunctional single-knob control (off, pilot, on) with thermoelectric safety device and near silent ON-OFF solenoid valve. Facility to mount a piezo-electric igniter.

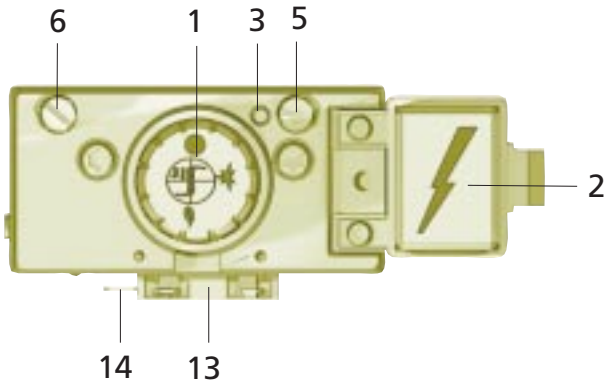
MAIN FEATURES

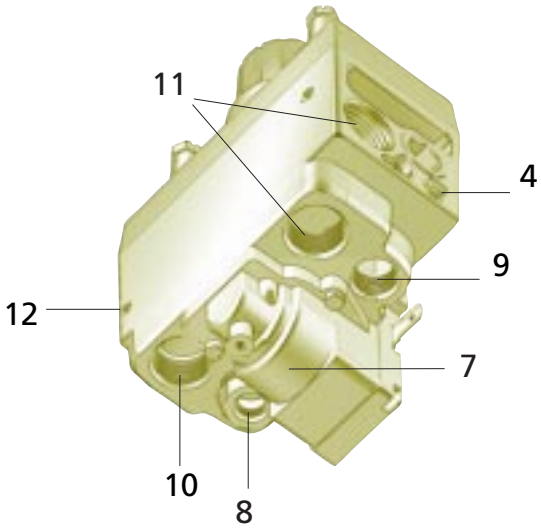
Single-knob control (on, pilot, off).
Thermoelectric flame failure device with restart interlock.
Silent, automatic ON-OFF solenoid valve.
Gas flow regulator.
Regulator for gas flow to the pilot burner.
Piezo-electric igniter (on request).
Inlet and pilot filters.
Inlet and outlet pressure test points.

Data refer to EN 126

DESCRIPTION

1 Single-knob control (on, pilot, off)
2 Piezo-electric igniter (on request)
3 Maximum flow adjustment screw
4 Adjustment screw for gas flow to the pilot
5 Inlet pressure test point
6 Outlet pressure test point
7 On-off solenoid valve
8 Thermocouple connection
9 Pilot outlet
10 Main gas inlet
11 Main gas outlets
12 Flange fixing holes
13 Electrical connector
14 Earth terminal connection





TECHNICAL DATA

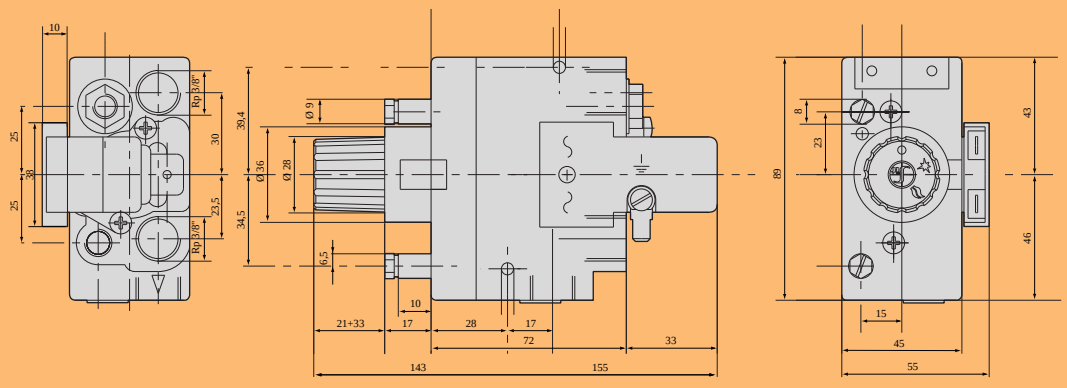
• Gas connections:	Rp 3/8 ISO 7
• Installation position:	any position
• Gas families:	I, II and III
• Maximum gas inlet pressure:	60 mbar
• Working temperature range:	0...60 °C
• Automatic solenoid valve:	Class D

POWER SUPPLY

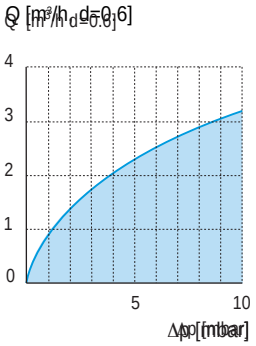
Voltage *(AC)*	Consumption *(mA)*
230 V 50 Hz	23
24 V 50 Hz	210
Elettrical protection rating/	*IP40*

Data refer to EN 126

DIMENSIONS



FLOW RATE AS FUNCTION OF PRESSURE DROP



I	Family (d = 0.45)	Q = 2.60 m^3/h	Δp = 5 mbar
II	Family (d = 0.6)	Q = 2.25 m^3/h	Δp = 5 mbar
III	Family (d = 1.7)	Q = 2.67 kg/h	Δp = 5 mbar

Pilot flame ignition

Turn the knob to the position ✸ . Depress the knob and keep it fully depressed (fig. 1). Ignite the pilot burner by keeping the knob depressed for a few seconds. (In the version with piezo-electric igniter, depress the button ↘ .)
Release the knob and check that the pilot flame stays lit. If it goes out, repeat the ignition operation.

fig. 1

Main burner ignition

Turn the knob anticlockwise to the position 🔥 (fig. 2).

Pilot position

Turn the knob to position ✸ (fig. 1) to keep the main burner closed and the pilot flame lit.

fig. 2

Shutdown

Turn the knob to position ● (fig. 3).

CAUTION: the restart interlock device prevents ignition of the appliance until the flame failure device has stopped gas flow. At the end of this period (after closing the magnet unit) it is possible to carry out the re-ignition operation.

fig. 3

Main gas connection

The connection is made using gas pipes with Rp 3/8 ISO 7 threading. Torque: 25 Nm. The main outlet can be parallel to the gas inlet or, alternatively, perpendicular. Plug the unused outlet with the provided accessory; torque: 25Nm.

Connection to the pilot burner

Pipes with a 4 mm, 6 mm or 1/4 diameter can be used. Use a nut and olive of appropriate dimensions. Tighten to 7 Nm torque.

Electrical connections

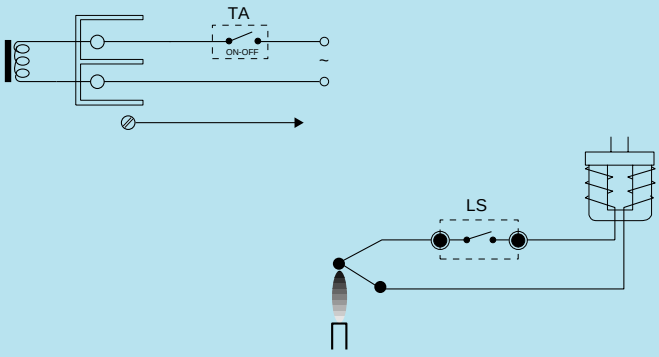
Use the special connectors for connecting the versions powered by the mains voltage. To ensure that the valve is connected to the earth circuit of the appliance, use a power connector which includes an earth terminal, securing it by means of the screw provided or the faston tab.

The 24Vac versions must be powered by means of an isolating transformer (with a very low safety voltage). Carry out the connections in accordance with the rules for the appliance.

The electrical safety cut-off devices (for example the limit thermostat, and the like) must cut off the power supply to the thermoelectric circuit of the safety magnet unit.

CAUTION: after making the connections, check gas tightness and electrical insulation.

WIRING PLANS



TA = Room thermostat
LS = Limit thermostat

Measurement of the inlet and outlet pressure

The inlet and outlet pressures of the gas can be measured by unscrewing the provided test point sealing screws (PRESS.IN) and (PRESS.OUT).
Replace screws with 2.5 Nm torque.

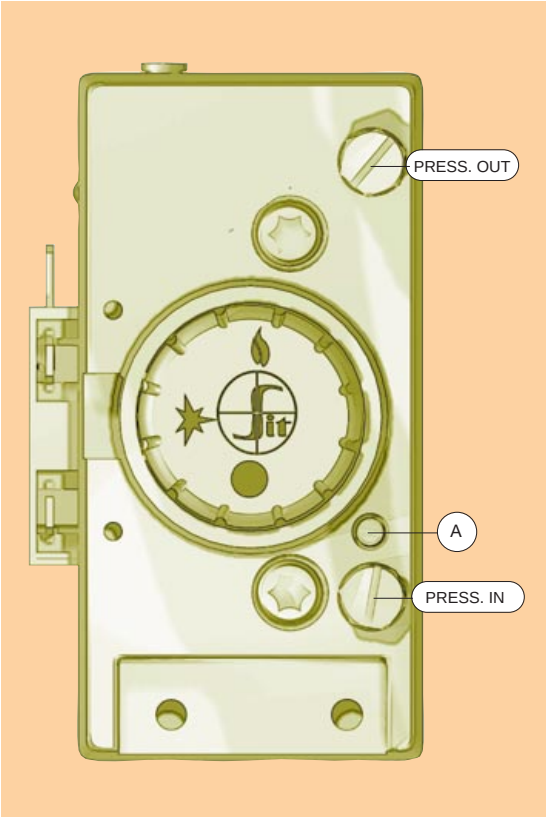
Maximum flow adjustmen

Screw in the adjustment screw (A) to reduce the maximum flow or screw it out to increase.
When using family III gas, it is possible to over-ride the flow adjuster by screwing the screw (B) completely out until it stops.

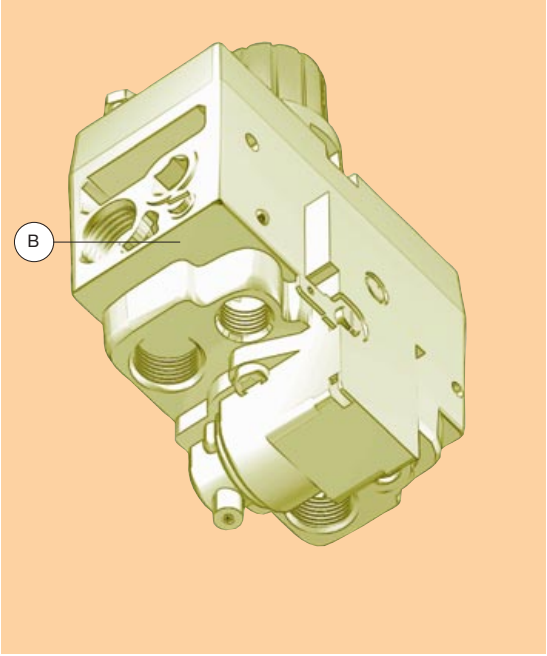
Gas flow-rate adjustment to the pilot

Screw in the screw (B) to reduce the flow or unscrew it to increase flow.

CAUTION: Check tightness and efficiency and seal the adjustment devices.



Maximum flow adjustment

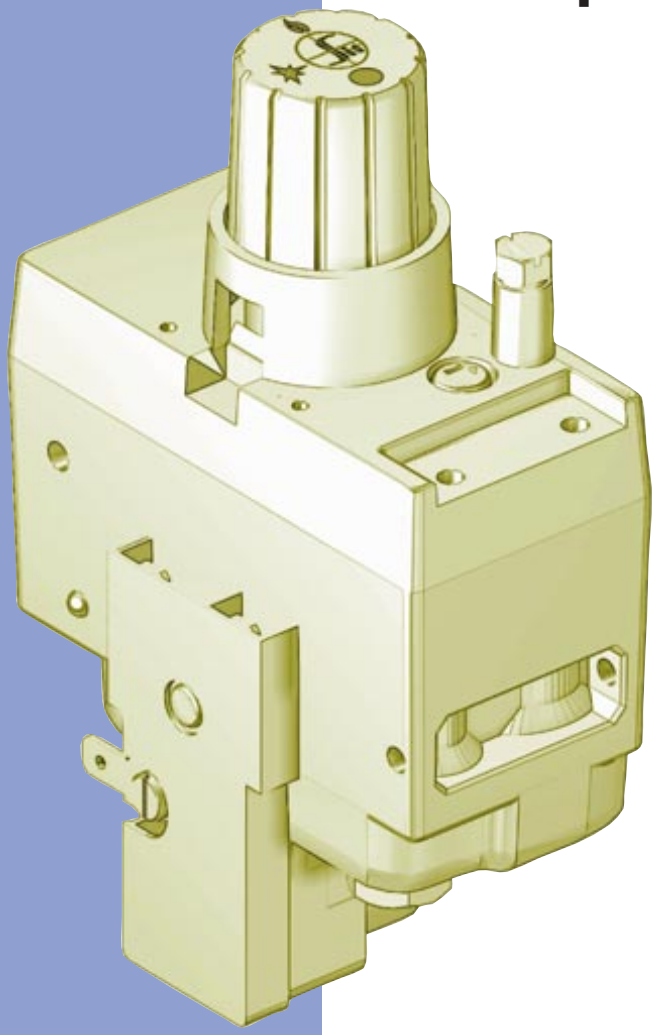


Gas flow rate adjustment to the pilot

Implement the provisions in the Use and Maintenance manual - code 9.956.680 - for installation, adjustment and use

680 COMPOSIT

Multifunctional control for small gas heating appliances, with electrical power supply.



SIT La Precisa
Viale dell'Industria 31/33 35129 PADOVA - ITALY
Tel. 049/8293111 - Fax 049/8070093 - Telex 430130 SITEC I

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