Control valve S11T
Pilot burner ZT

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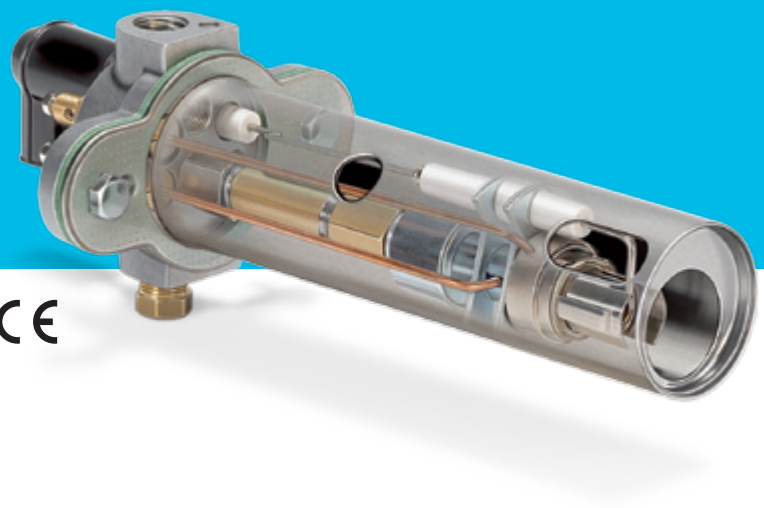

CE

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Control valve S11T

- Independent of mains power supply due to thermo-electric safeguarding
- Installation facilitated by pilot gas connection on both sides
- Available with contact switch for ignition with electrode
- Control valve S11T..R15 suitable for gas inlet pressures up to 1.5 bar

Pilot burner ZT

- Flame monitoring by thermocouple
- Thermo pilot burner, optionally available with forced draught connection
- Available for manual ignition or ignition with electrode
- Saves space due to its compact dimensions
- Different lengths make it suitable for individual installation situations
- Maintenance-friendly due to use of stainless steel

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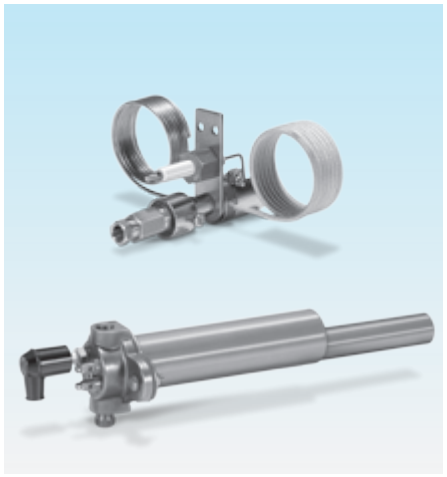
Control valve S11T..S with switch to control an ignition transformer



Pilot burner ZT 13MI with soldered grounding cable and thermocable, pilot burner ZT 42G with protective tube

Application

Control valve S11T

For thermo-electric safeguarding of gas-fired installations of any kind in conjunction with thermo pilot burners ZT.

The control valve S11T operates independently of mains power supply.

The control valve S11T..S is fitted with a switch to control an ignition transformer.

Pilot burner ZT

For safe ignition and thermo-electric safeguarding in conjunction with control valve S11T of atmospheric gas burners on furnaces in the metal, ceramics and non-ferrous metal industries, on heat treatment installations or in applications without voltage supply.

Suitable for operation with natural gas, town gas or LPG.

Pilot burner ZT 1MI is ignited manually.

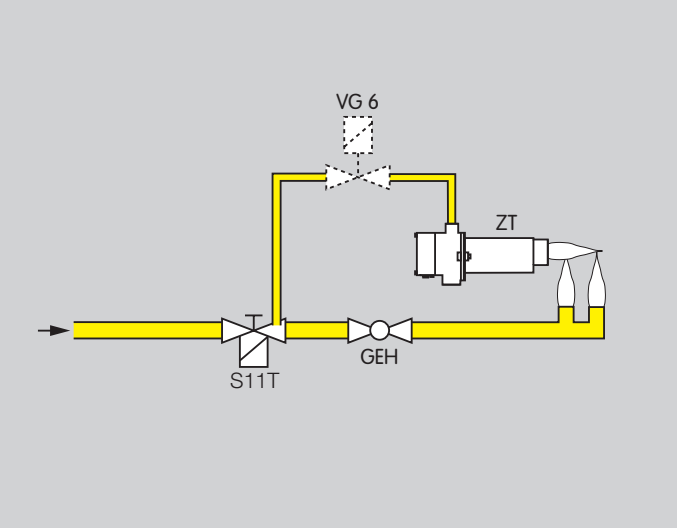
Pilot burners ZT 13MI, ZT 32 and ZT 42 are ignited using an ignition electrode.

Wheel rim hardening installation

Annealing furnace

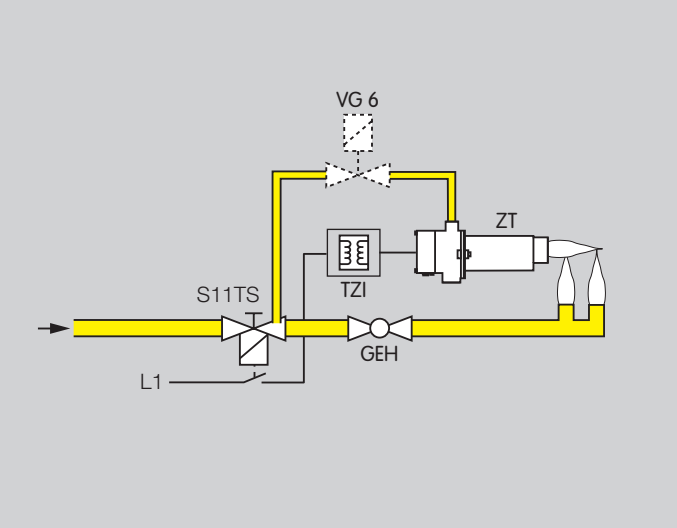
Intermittent shuttle kiln in the ceramics industry

Examples of application



Thermo-electric safeguarding with manual ignition

The pilot burner is ignited manually. An additional gas solenoid valve VG 6 can be used as a safety valve, e.g. for overtemperature shut-down or power shortage cut-out.



Thermo-electric safeguarding with electrical ignition

A contact is closed via the switch on the control valve S11T..S so that voltage is supplied to the ignition transformer. The pilot burner is ignited using an ignition spark.

An additional gas solenoid valve VG 6 can be used as a safety valve, e.g. for overtemperature shut-down or power shortage cut-out.

Selection

Pilot burner capacity

Capacity is dependent on the burner, the fitted burner nozzle and the gas type.

For pilot burners ZT 1MI und ZT 13MI, a burner nozzle is installed at the factory with a 0.5 mm flow opening. When using town gas, a burner nozzle with a 0.8 mm flow opening has to be ordered separately.

Burner	Burner nozzle ∅ [mm]	Burner capacity [kW] with gas type		
		Natural gas (ρ = 0.80 kg/m³) at 20 mbar	LPG (propane) (ρ = 2.01 kg/m³) at 50 mbar	Town gas (ρ = 0.58 kg/m³) at 8 mbar
ZT 32..N. ZT 42..N	0.8	1.3	–	–
ZT 32..F, ZT 42..F	0.5	–	1	–
ZT 32..S, ZT 42..S	1.8	–	–	2
ZT 1MI, ZT 13MI	0.5	0.5	1	–
ZT 1MI, ZT 13MI	0.8	–	–	0.5

Selection tables Control valve S11T

	15	20	25	R	01	15	S*
S11T	●	●	●	●	●	●	○[1]

** If "none", this specification is omitted.*

[1] S11T 20R15 and S11T 25R15 are not available with switch.

● = standard, ○ = available

Order example

S11T 25R15

Type code S11T

Code	Description
S11T	Control valve
	Nominal diameter [DN]:
15	15
20	20
25	25
R	Rp internal thread
	Inlet pressure p_e:
01	max. 100 mbar
15	max. 1500 mbar
S	With switch

Selection tables Thermo pilot burner ZT 1MI, ZT 13MI

	1MI	13MI
ZT	●	●

● = standard, ○ = available

Order example

ZT 13MI

Type code Thermo pilot burner ZT 1MI, ZT 13MI

Code	Description
ZT	Thermo pilot burner for control valve S11T
1MI	For manual ignition
13MI	With ignition electrode for electrical ignition

Selection Table Pilot burner with protective tube

	G	N	F	S	-100 bis -500**	/100
ZT 32	○*	●	●	●	●	–
ZT 42	●	●	●	●	●	●

** If "none", this specification is omitted.*

*** Other protective tube lengths on request.*

● = standard, ○ = available

Order example

ZT 42GN-200/100

Type code Pilot burner with protective tube

Code	Description
ZT	Thermo pilot burner for control valve S11T
32	With ignition electrode and protective tube
42	With ignition electrode, protective tube and flame tube
G	For forced draught
N	Natural gas
F	LPG
S	Town gas
	Protective tube length* [mm]:
-100	100
-150	150
-200	200
-300	300
-400	400
-500	500
	Flame tube length [mm]:
/100	100

** Other protective tube lengths on request.*

Technical data

Control valve S11T

Types of gas: natural gas, town gas or LPG.

Pilot gas connection for 8×1 tube.

Opening time: 10 – 15 s.

Closing time (decrease of thermo-electric voltage + valve closing time): < 30 s.

Ambient temperature: -20 to +60°C.

Thermo-electric voltage:
under load: ≤ 10 mV,
extinction voltage: 8 mV.

Max. inlet pressure p_e:
S11T..01 = 100 mbar,
S11T..15 = 1.5 bar.

Pilot burner ZT

Types of gas: natural gas, LPG or town gas.

Capacity: approx. 1 – 2 kW.

Thermo-electric voltage:
under load: 10 – 15 mV,
in idle state: 30 – 40 mV,
extinction voltage: < 8 mV.

ZT 1MI, ZT 13

Operation with	Gas pressure* [mbar]	Burner nozzle ∅ [mm]
Natural gas	15 – 30	0.5
LPG	30 – 50	0.5
Town gas	8 – 20	0.8**

** In the case of higher gas pressures, fit additional gas restrictor orifice.*
*** Not included in the delivery; to be ordered separately.*

ZT 32

Operation with	Gas pressure* [mbar]	Burner nozzle ∅ [mm]
Natural gas	15 – 30	0.8
LPG	30 – 50	0.5
Town gas	8 – 20	1.8

** In the case of higher gas pressures, fit additional gas restrictor orifice.*

ZT 32G, ZT 42G

Operation with	Gas pressure* [mbar]	Air pressure* [mbar]	Burner nozzle ∅ [mm]
Natural gas	15 – 30	3	0.8
LPG	30 – 50	6	0.5
Town gas	8 – 20	10	1.8

** In the case of higher gas/air pressures, fit additional gas/air restrictor orifice.*

Certification

CE

S11T, ZT

EC type-tested and certified
pursuant to

– Gas Appliances Directive (90/396/EEC) in conjunction with EN 125

Maintenance

The system requires little servicing. Check the safety time of S11T/S11T..S once a year.

Detailed information on this product

www.docuthek.com ➔ Direct access
Search term: S11T, ZT
Kind of document: Technical information

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