

Control valve S11T Pilot burners ZTA, ZT 40 and ZTI 55

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Control valve S11T

- Independent of mains power supply due to thermo-electric safeguarding
- Available with contact switch for ignition with electrode
- Control valve S11T..R15 suitable for gas inlet pressures up to 1.5 bar

Pilot burners ZTA, ZT 40 and ZTI 55

- Flame monitoring using a thermocouple, and in the case of ZTI 55 also using an ionization electrode
- Thermo pilot burners, optionally available with forced draught connection
- Electrical ignition with an electrode
- Save space due to their compact dimensions
- Different lengths make them suitable for individual installation situations



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



*Pilot burner ZTA with
grounding cable and
thermo-cable, pilot
burner ZT 40 with
protective tube and
air nozzle*

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 burners

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.

The pilot burners are ignited using an ignition electrode.

In the case of pilot burners ZTI 55, the flame is monitored via a thermocouple. An ionization electrode is also fitted, whose signal current may be used to release an additional valve, for example.



*Wheel rim hardening
installation*



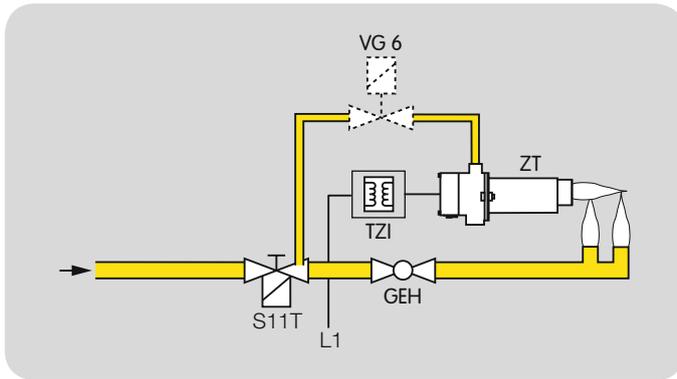
Annealing furnace



*Intermittent shuttle
kiln in the ceramics
industry*

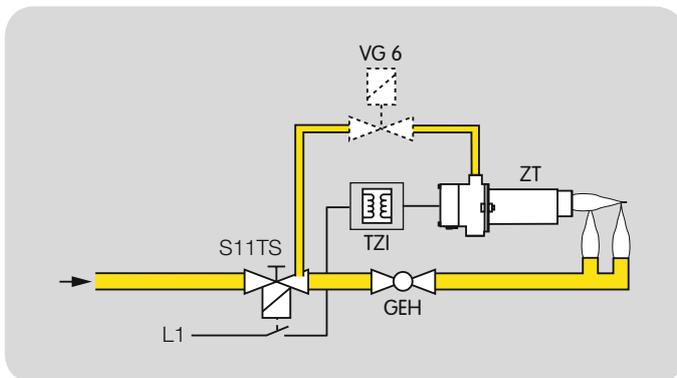
Examples of application

Thermo-electric safeguarding



As soon as 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.

Thermo-electric safeguarding with electrical ignition via control valve



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

Type code Control valve S11T

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

Type code Atmospheric pilot burner ZTA

Code	Description
ZTA	Thermo pilot burner for control valve S11T
B	Natural gas
G	Propane/propane, butane/butane

Type code Pilot burner ZT 40 with protective tube, either atmospheric or with forced air supply

Code	Description
ZT 40	Thermo pilot burner with protective tube
B	Natural gas
D	Town gas
G	LPG
-200	Protective tube length [mm]
/100*	Protective tube length [mm]
A*	Atmospheric

* Available either with flame tube and air line connection or as an atmospheric burner.

Type code Atmospheric pilot burner with ionization electrode ZTI 55

Code	Description
ZTI 55	Thermo pilot burner with ionization electrode
B	Natural gas
G	LPG
D	Coke oven gas, town gas
105	Protective tube length [mm]
/120	Protective tube length [mm]
A	Atmospheric

Technical data

Control valve S11T

Gas types: natural gas, town gas or LPG.

Pilot gas connection: for 8 x 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:

extinction voltage: 8 mV.

Max. inlet pressure p_U :

S11T..01 = 100 mbar,

S11T..15 = 1.5 bar.

Pilot burner

Burner	Operation with	Gas pressure [mbar]	Prated [kW]
ZTA B	Natural gas	12–40*	1
ZTA G	LPG	12–40*	1
ZTA B	Town gas**	20–40*	1
ZT 40B..A	Natural gas	20–35*	1
ZT 40G..A	LPG	40–60*	1
ZT 40D..A	Town gas	12–28*	1
ZT 40B../100	Natural gas	20–40*	1
ZT 40G../100	LPG	40–60*	1
ZT 40D../100	Town gas	12–28*	1
ZTI 55B	Natural gas	12–50	3.3
ZTI 55G	LPG	12–50	2.5
ZTI 55D	Town gas	20–60	2.3

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

** For this, the gas nozzle must be replaced.

Gas connection: compression fitting for tube $d = 8$ mm.

Thermo-electric voltage:

under load: 10–15 mV,

in idle state: 20–25 mV.

Extinction voltage: < 8 mV.

Maintenance cycles

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

Flow rate

