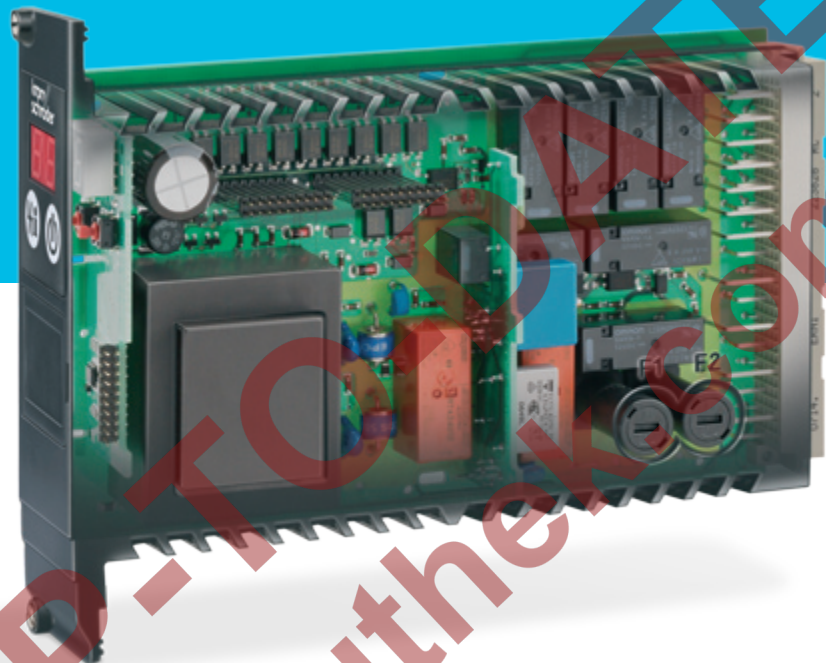


Burner control unit PFU 780

Product brochure · GB
6.2.1.5 Edition 06.07



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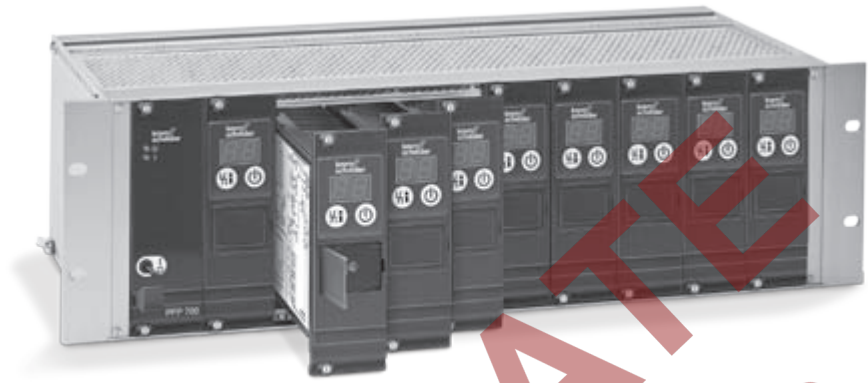
- For pilot and main burners of unlimited capacity in intermittent operation or in continuous operation pursuant to EN 746-2
- Plug-in function unit for mounting in 19" module subracks
- Separate flame control for pilot burner and main burner by UV, ionisation or a further option of using the furnace chamber temperature
- Display of the program status, unit parameters and flame signal; manual mode for burner adjustment and for diagnostic purposes
- Visualisation and adaptation to the specific application via the PC programming and diagnostic software BCSoft to simplify logistics management
- Air valve control relieves the furnace control



elster
Kromschroder



PFU 780



Module subrack BGT for instance serves to accommodate several function units. It is provided with a backplane with screw terminals for simple, reliable wiring.

Application

The burner control units PFU 780 control, ignite and monitor gas burners for intermittent or continuous operation. As a result of their fully electronic design they react quickly to various process requirements and are therefore also suitable for frequent cycling operation.

The PFU 780 can be used for industrial burners of unlimited capacity which are ignited by pilot burners. Pilot and main burners are controlled and monitored independently. This reduces the main burner start-up time. The pilot burner can burn permanently or be switched off. The main burners may be modulating or stage-controlled.

On industrial furnaces, the PFU 780 reduces the load on the central furnace control by taking over tasks that only relate to the burner, for example it ensures that the burner always ignites in a safe condition after it has been restarted.

The burner control unit is used for burners with mechanical combustion air supply where the fan is controlled by a separate logic and for atmospheric burners.

The air valve control on the PFU 780L assists the furnace control for cooling, purging and capacity control tasks.

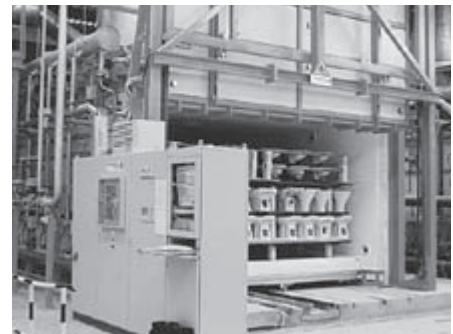
The program status, the unit parameters and the level of the flame signal can be read directly from the unit. Pilot and main burners can be controlled manually for commissioning and diagnostic purposes.

If the local requirements on the automatic burner control unit change, the PC software BCSoft can be adjusted to the unit parameters of the application by using the optical interface.

The service personnel is supported by a convenient visualisation system of the input and output signals and the error history.



Bogie hearth forging furnace in the metallurgical industry

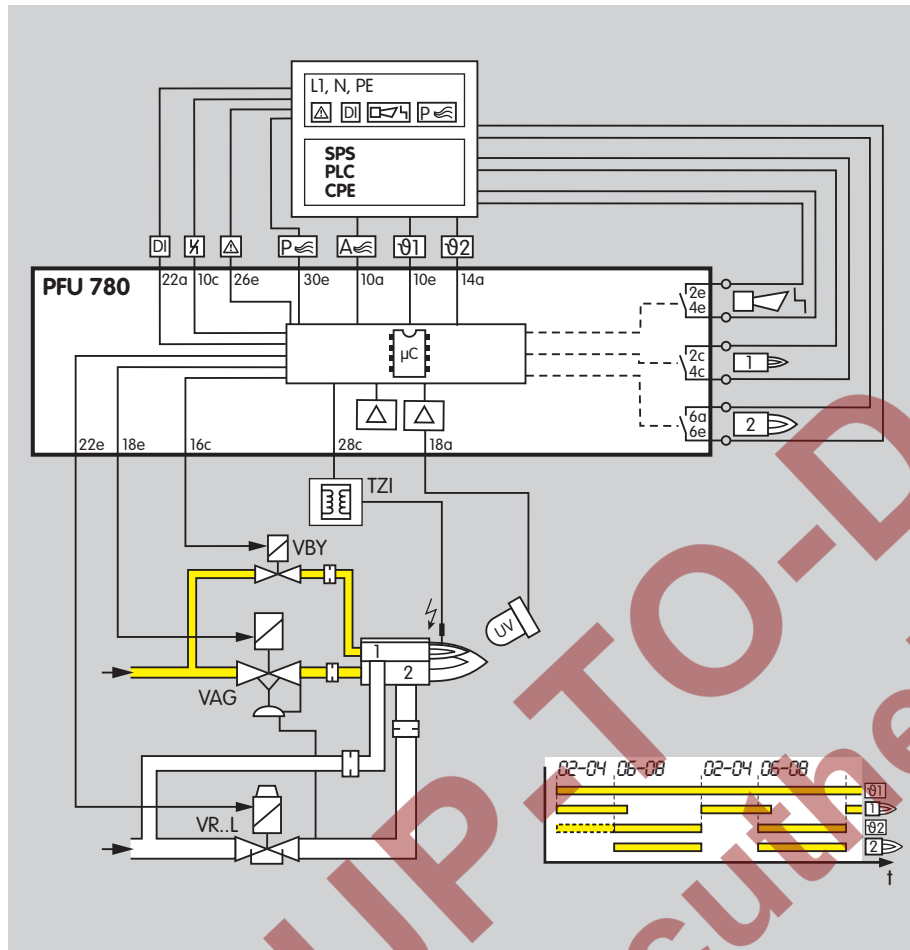


Intermittent shuttle kiln in the ceramics industry



Walking beam furnace with overhead firing

Examples of application

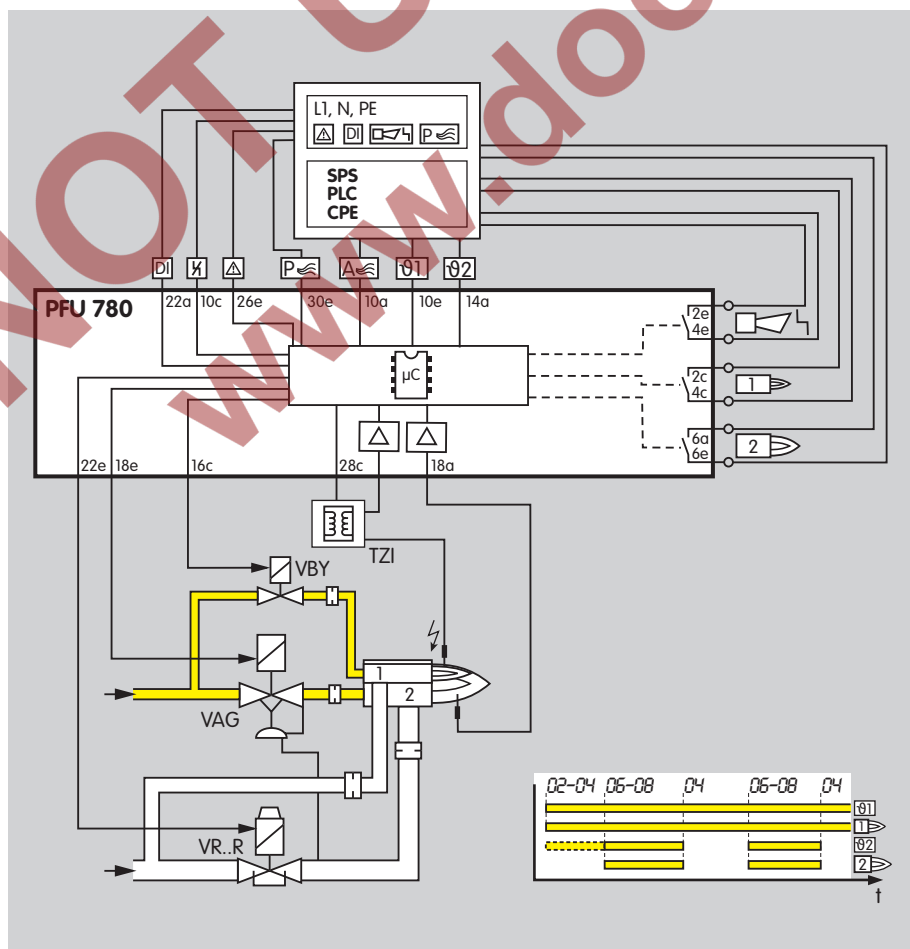


Stage-controlled main burner with alternating pilot burner

Control:
Main burner ON/OFF.

The main burner can be started with reduced capacity after the operating signal from the pilot burner has been detected. The pilot burner is switched off automatically after the main burner has started up. When the main burner is switched off, the pilot burner automatically switches on again.

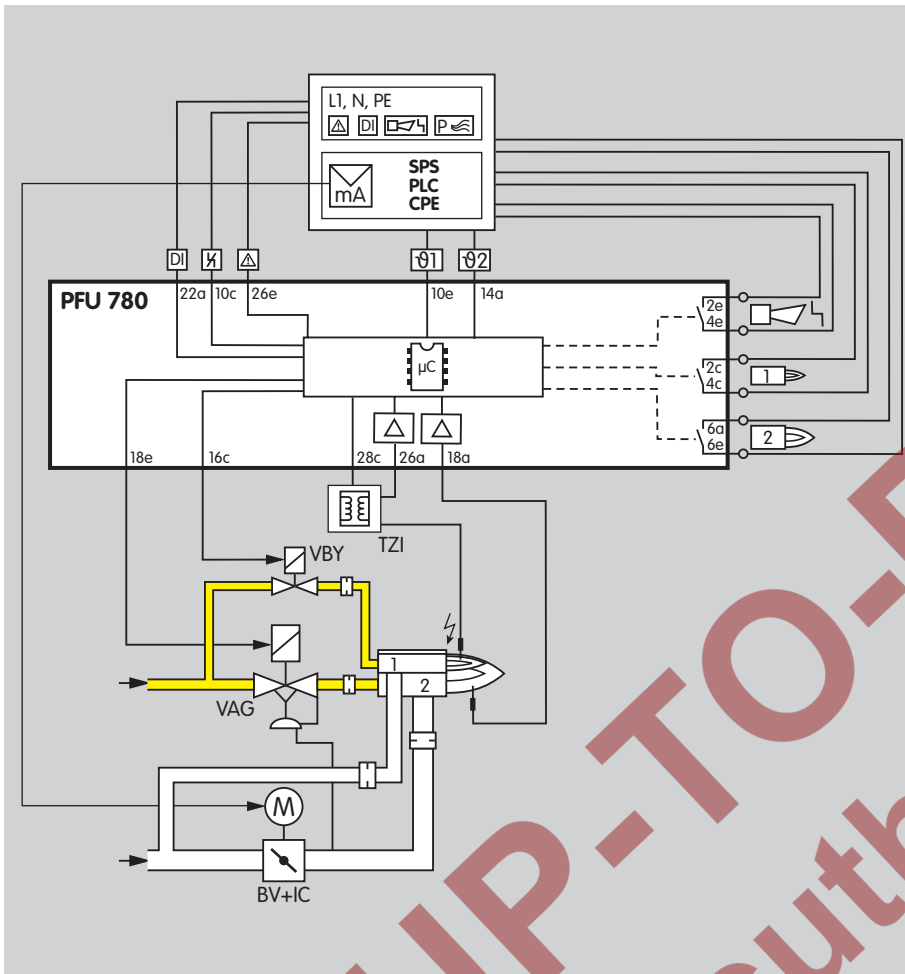
A UV sensor monitors the flame signal from pilot and main burners. UV sensor UVD 1 is used for continuous operation, UV sensor UVS for intermittent operation.



Stage-controlled main burner with permanent pilot burner

Control:
Main burner ON/OFF.

The main burner can be started with reduced capacity after the operating signal from the pilot burner has been detected. Pilot and main burners can be operated simultaneously.

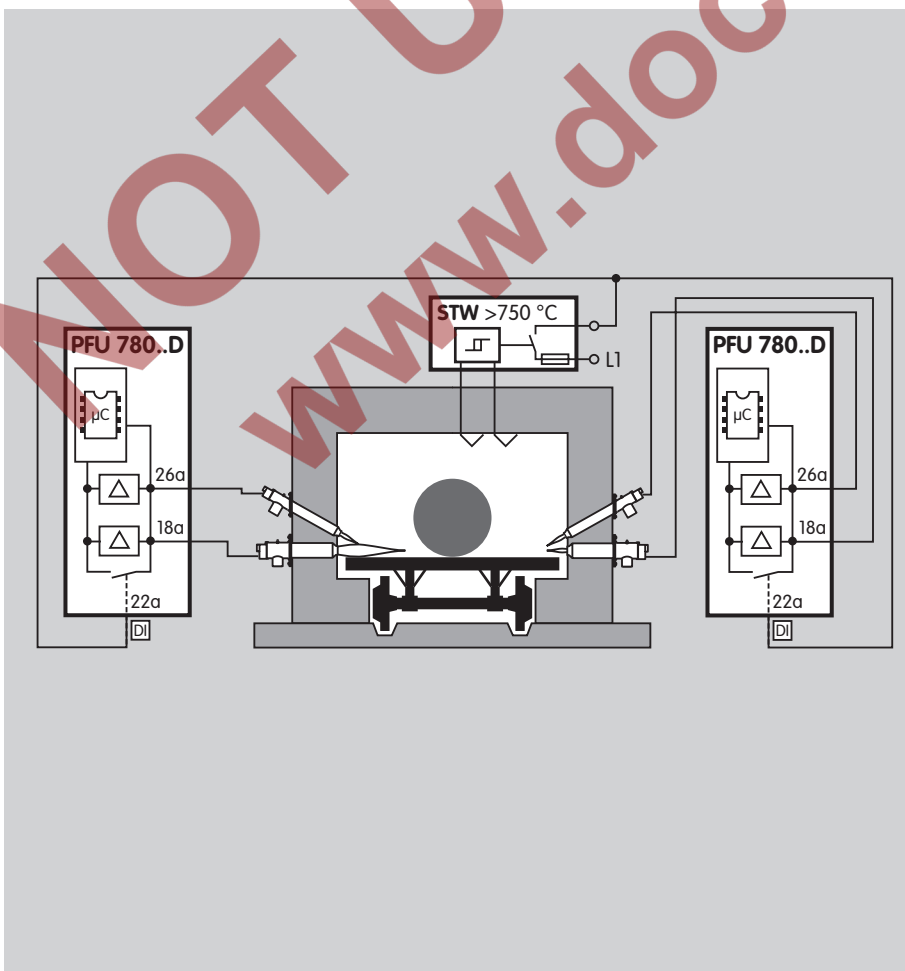


Modulating-controlled burner

Control:

Main burner continuous

The butterfly valve for air is moved to ignition position in order to start the main burner. The main burner can be started at low-fire rate after the operating signal from the pilot burner has been detected. The control system controls the burner capacity via the butterfly valve for air after the operating state has been signalled. Pilot and main burners can be operated simultaneously.



PFU 780..D: High temperature equipment

The flame is controlled indirectly on the basis of the temperature. During the start-up process, as long as the wall temperature is below auto ignition temperature the flame must be controlled by conventional methods. When the working temperature has exceeded 750°C, the safety temperature monitor (STW) takes over the indirect flame control.

Technical data

Mains voltage:

230 V AC, -15/+10%, 50/60 Hz,
115 V AC, -15/+10%, 50/60 Hz (optional),
for grounded and ungrounded mains.

Length of burner cables:

max. 100 m.

Max. number of operating cycles:

1,000,000.

Ambient temperature:

-20 to +60°C,
no condensation permitted.

Certification

The PFU complies with the requirements of the following directives and standards:

- Machinery Directive (2006/42/EC)
- EN 298
- Low Voltage Directive (2006/95/EC)
- Electromagnetic Compatibility Directive (2004/108/EC)

Certification pursuant to

- Gas Appliances Directive
- FM
- CSA

is currently being prepared.



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Order example
PFU 780LT

Selection

	L	T	N	D*	U*	K2*
PFU 780	●	●	●	○	○	○
Type = PFU						
Air valve control = L						
Mains voltage						
230 V AC, -15/+10%, 50/60 Hz = T						
115 V AC, -15/+10%, 50/60 Hz = N						
Digital input						
to interrupt the flame monitoring = D*						
Preparation for UV sensor for continuous operation UVD 1 = U*						
Compatible with PFU 798 = K2*						

● = standard
○ = available

* If "none", this specification is omitted.

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