

Burner control unit PFU 760

Product brochure · GB

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CE

krom
schroder

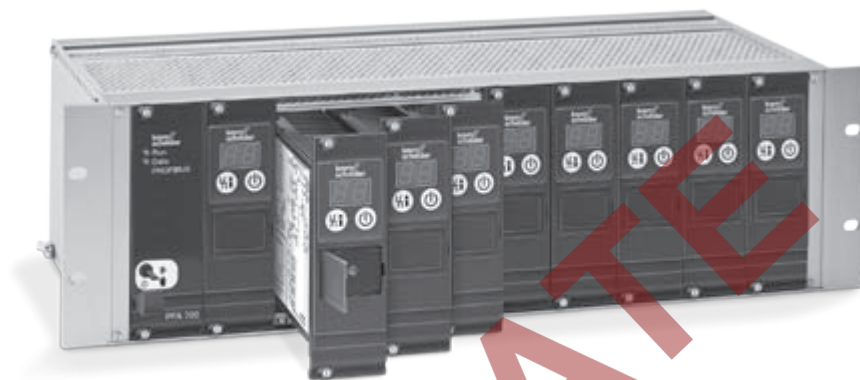
- For directly ignited burners of unlimited capacity in intermittent operation or in continuous operation pursuant to EN 746-2
- Plug-in function unit for mounting in 19" module subracks
- Flame control by UV, ionisation or a further option of using the furnace chamber temperature
- Display of the program 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
- Connection to PROFIBUS-DP via field bus interface PFA



elster
Kromschroder



PFU 760



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 760 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 760 can be used for directly ignited industrial burners. The burners may be modulating or stage-controlled.

On industrial furnaces, the PFU 760 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 burner control unit PFU 760L 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. The burner can be controlled manually for commissioning and diagnostic purposes.

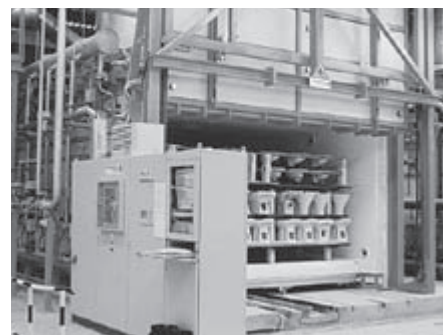
If the local requirements on the burner control unit change, the PC software BCSoft can be adjusted to the unit parameters of the application by using the optical interface.

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

To reduce the installation and wiring costs, Elster Kromschroder offers the field bus interface PFA 700 to transfer the control signals and feedbacks via PROFIBUS-DP.



Bogie hearth forging furnace
in the metallurgical industry

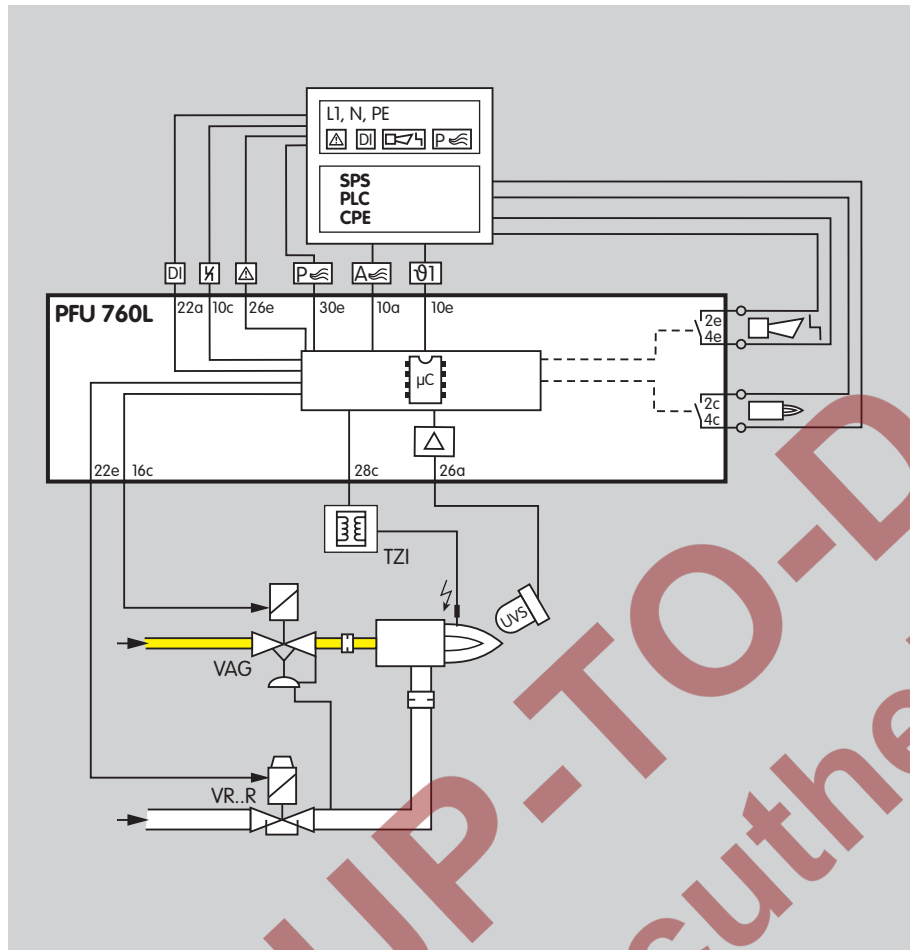


Intermittent shuttle kiln
in the ceramics industry



Walking beam furnace
with overhead firing

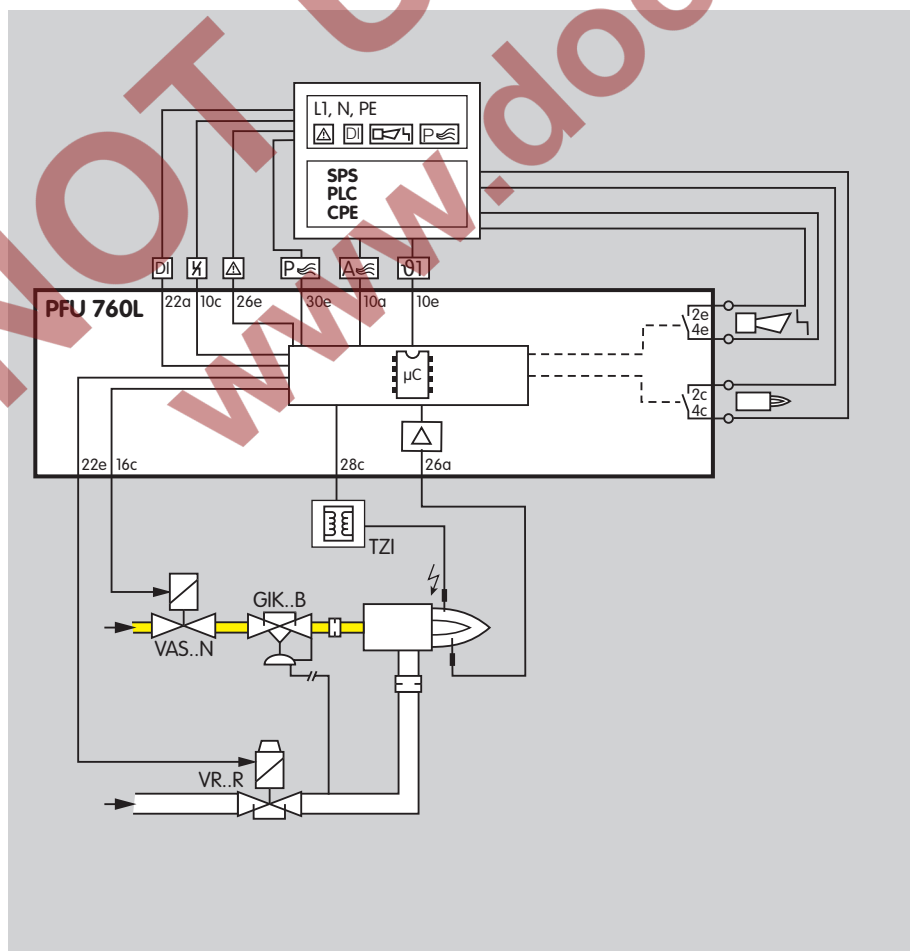
Examples of application



Staged On/Off burner control

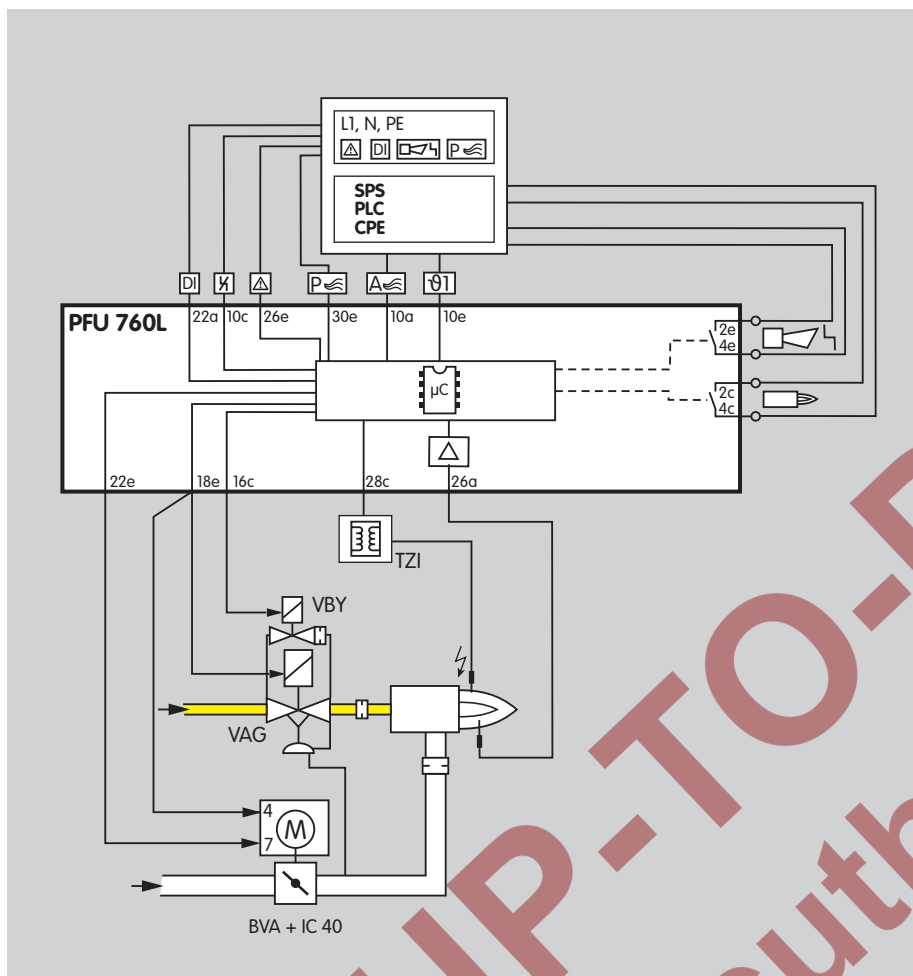
The burner can be started with reduced capacity.

A UV sensor monitors the flame signal from the burner. UV sensor UVD 1 is used for continuous operation, UV sensor UVS for intermittent operation.



Staged High/Low burner control

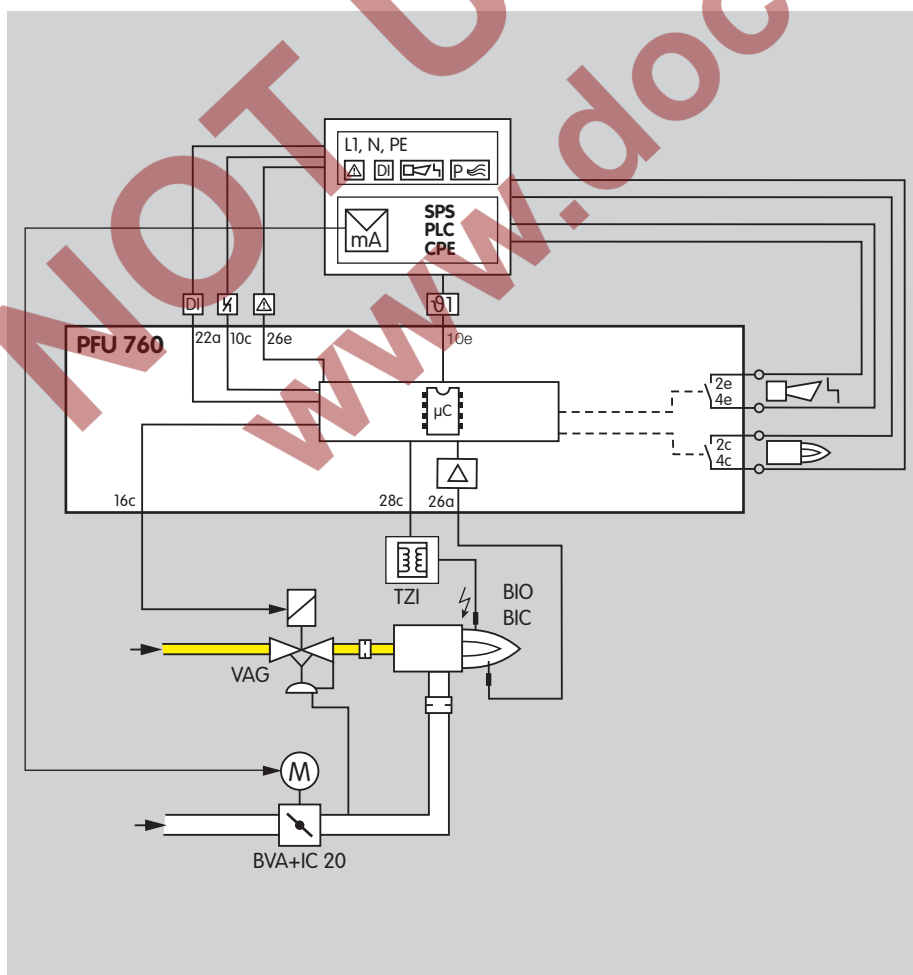
The burner starts at low-fire rate. When the operating state is reached, the PFU 760L advises the control unit. The PLC can now pulse the air valve in order to control the burner capacity.



Two-stage-controlled burner

Control: ON/OFF with ignition via bypass

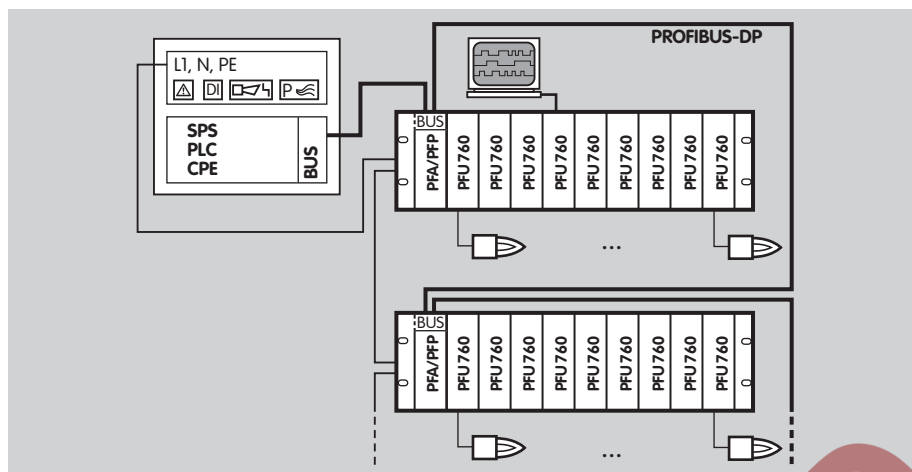
The burner starts at low-fire rate. When the operating state is reached, the PFU 760L issues the Enable signal for the maximum burner capacity.



Modulating-controlled burner

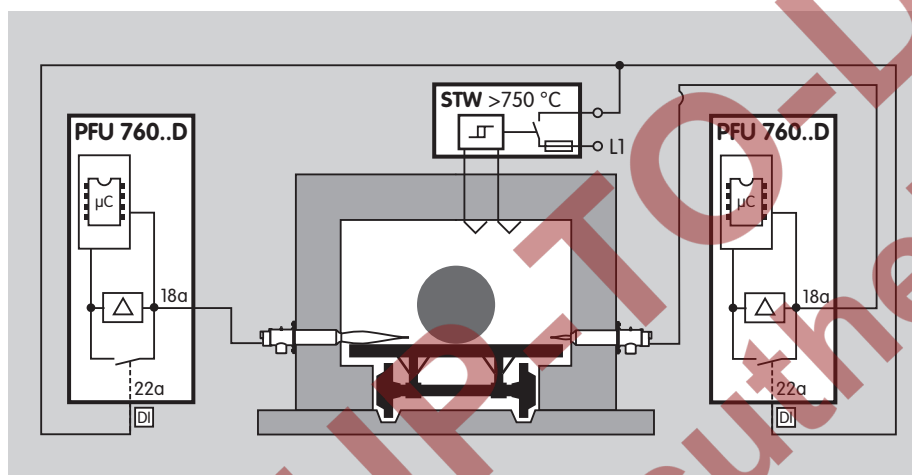
Control: continuous

The external control system moves the butterfly valve for air BVA to ignition position. The burner starts at low-fire rate, and a controller in the PLC controls the burner capacity via the butterfly valve for air BVA after the operating state has been signalled.



PFU for PROFIBUS-DP with PFA 700

The bus system transfers the control signals for starting, resetting and for controlling the air valve from the control system (PLC) to the PFU 760 via the PFA 700. In the opposite direction it sends information on the operating status. Control signals that are relevant for safety, such as the safety interlocks and digital input, are transferred independently of the bus communication by separate cables.



PFU 760..D: High temperature equipment

Indirect flame control using 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.

Order example
PFU 760LT

Selection

	L*	T	N	D*	U*	K1*	K2*
PFU 760	○	●	●	○	○	○	○
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 PFS/PFD = K1*							
PFU 778 = K2*							

* If "none", this specification is omitted.

● = standard
○ = available

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on this product
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