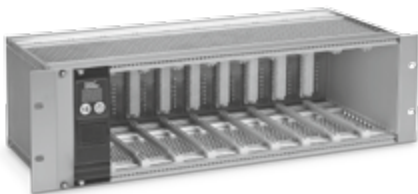


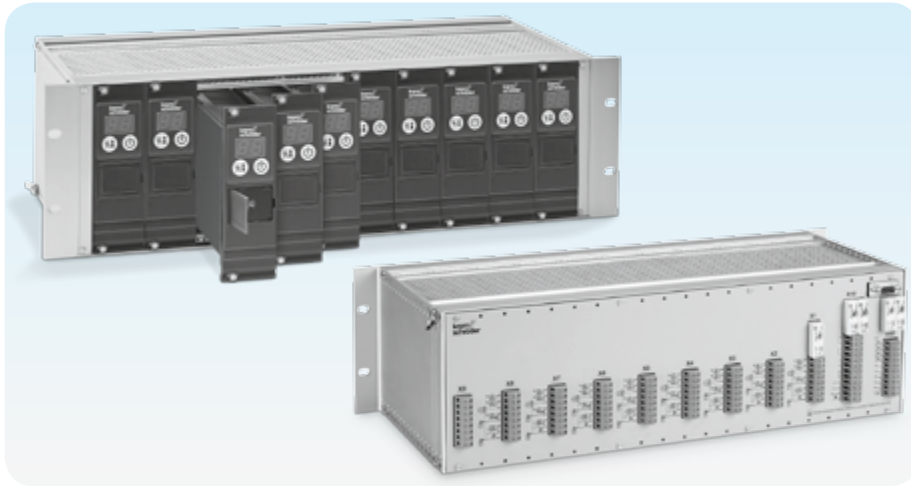
Field bus interface PFA Module subrack BGT

Product brochure · GB
6 Edition 03.11



- 19" module for easy transmission of activation signals and feedbacks from burner control units via fieldbus cable
- Remote maintenance and diagnostics facilities
- Saves installation and wiring costs
- Units can be exchanged during bus mode operation thanks to industrial plug connector system
- Bus interface remains in operation when PFA is switched off (standby mode)
- Certification for PROFIBUS DP

In module subrack BGT, up to nine burner control units can be inserted together with the PFA 700, while with the PFA 710, the maximum is eight burner control units.



The BGT is provided with a backplane with screw terminals for simple, reliable wiring.

Application

The conventional wide-spread systems used in industrial furnace and kiln construction require bridging of large distances for signal processing.

The field bus interface PFA is used in conjunction with the pre-wired module subrack BGT for interworking of burner control units PFU to industrial communication networks using PROFIBUS DP to control and monitor burners in industrial furnaces and firing systems, e.g. in the iron and steel, glass and ceramics, or plastics and chemical industries.

As a standardized fieldbus system, the PROFIBUS DP considerably reduces development, installation and commissioning costs compared to conventional wiring.

The use of a standard bus system offers massive benefits compared to manufacturer-specific bespoke solutions. Time-tested hardware components, standardized connection methods and a series of tools of bus diagnostics and optimization are available on the market from a whole range of manufacturers. The widespread use of the system ensures that the planning and service personnel are very familiar with how the system operates and how to handle it and can therefore operate the system efficiently.

PFA 700 with BGT SA-9U/1DP700

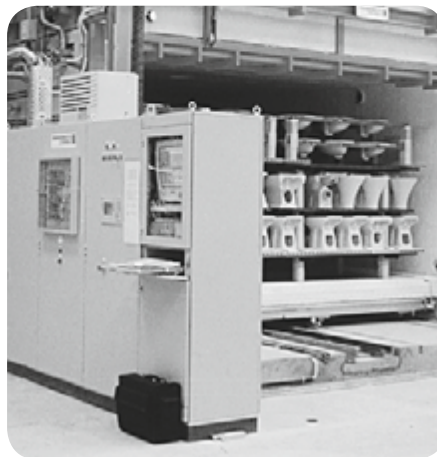
For interworking of up to nine burner control units PFU 760 for directly ignited burners to communication networks using PROFIBUS DP. The PFA 700 is plugged into the module subrack with printed-circuit board and rear terminal strip, together with the burner control units.

PFA 710 with BGT SA-8U/1DP710

For interworking of up to eight burner control units PFU 780 for pilot and main burners to communication networks using PROFIBUS DP. The PFA 710 is plugged into the module subrack with printed-circuit board and rear terminal strip, together with the burner control units.



Bogie hearth forging furnace in the metallurgical industry

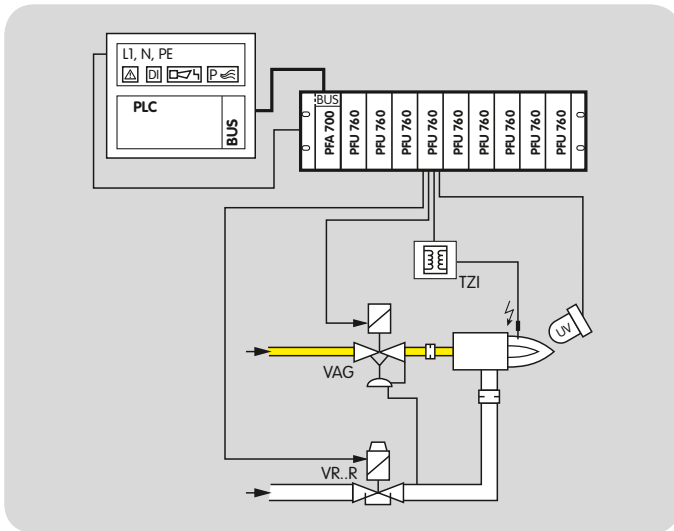


Intermittent shuttle kiln in the ceramics industry



Walking beam furnace with overhead firing

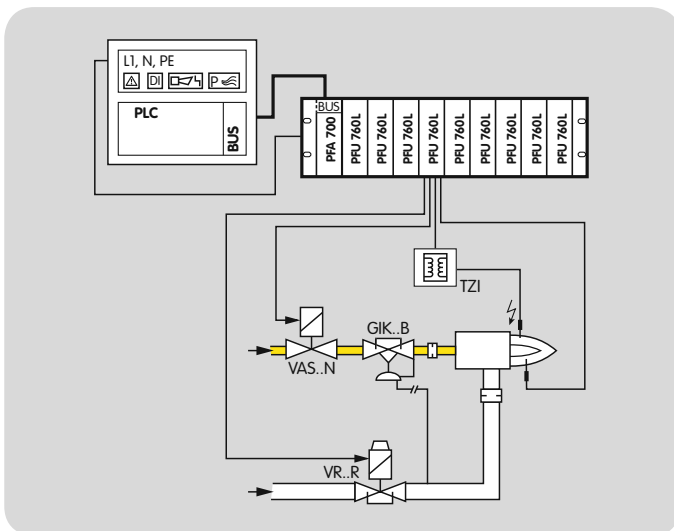
Examples of application
PFA 700 with PFU 760, staged On/Off burner control



The burner can be started with reduced capacity.

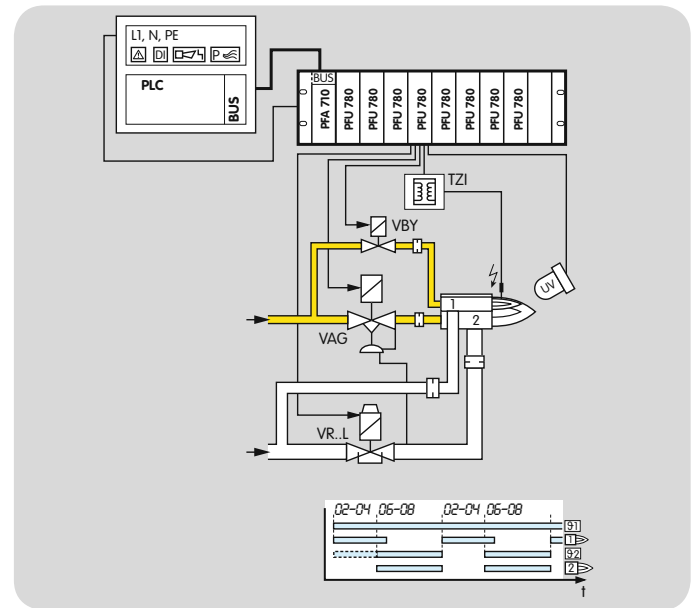
A UV sensor monitors the flame signal from the burner. UV sensor UVD 1 is used for continuous operation, UV sensor UVS for intermittent operation.

PFA 700 with PFU 760L, 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.

PFA 710 with PFU 780, stage-controlled main burner with alternating pilot burner

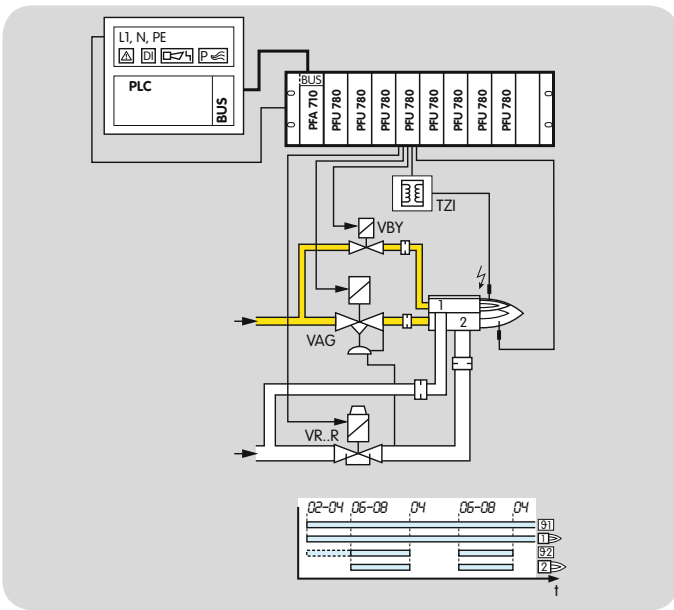


Control: main burner ON/OFF

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.

PFA 710 with PFU 780, 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. Both are ionization-controlled independently.

Control: main burner High/Low

The main burner starts at low-fire rate. When the operating state is reached, the PFU 780L advises the control unit. The PLC can now pulse the air valve in order to control the capacity of the main burner.

Type code

PFA

Code	Description
PFA	Field bus interface
700	For connecting: PFU 760
710	PFU 780
T	Mains voltage: 220/240 V AC
N	110/120 V AC
Z*	Special version

* If "none", this specification is omitted.

BGT

Code	Description
BGT	19" module subrack
SA	Standard and PFA 700/PFA 710
-8U	Slots for: 8 PFU
-9U	9 PFU
/1DP700	1 PFA 700, PROFIBUS DP bus interface
/1DP710	1 PFA 710, PROFIBUS DP bus interface

Technical data

PFA 700, PFA 710

Front width 8 depth units = 40.6 mm.

Overall height 3 height units = 128.4 mm.

Ambient temperature: -20°C to +60°C.

4 digital inputs: 24 V DC, ± 10%, < 10 mA.

4 digital outputs for controlling small relays
24 V, max. 250 mW (100 mA).

Mains voltage:

220/240 V AC, -15/+10%, 50/60 Hz,

110/120 V AC, -15/+10%, 50/60 Hz,

for grounded and ungrounded mains.

Weight: approx. 0.75 kg.



Detailed information on this product



http://docuthek.kromschroeder.com/doclib/main.php?language=1&folderid=206150&by_class=6

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