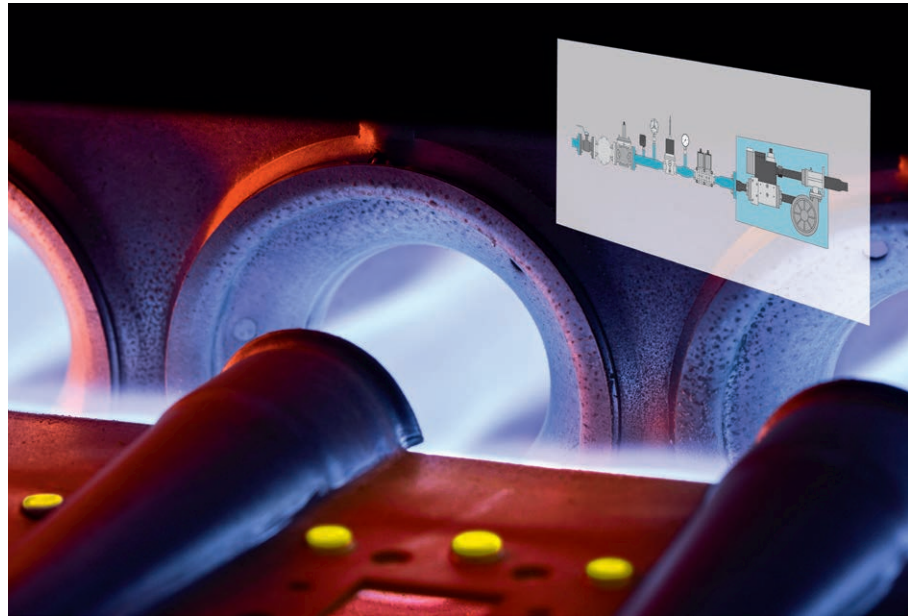# ▸ Safe burner management systems – all-in-one

Safe BMS

Pilz burner management systems offer everything you need for monitoring, control, diagnostics and maintenance of the various areas of your fuel burning plants – from pre-purge through to operation of the master burner – all-in-one. You can choose one of two high-performance systems, based on the complexity of the requirements and the number of burners. As the burner controller in your application, the burner management system of the safe small controllers PNOZmulti 2 Burner monitors both the burners themselves and the whole furnace, with all its plant-dependent safety functions – safety-all-inclusive. With TÜV-certified hardware and software, PNOZmulti 2 Burner satisfies the EN, IEC, cUL and NFPA requirements for applications with one or more burners.

Do you operate a highly complex, interlinked plant with a large number of burners, as is the case in the steel industry for example? Then the burner management system with the PSSuniversal PLC Controller is the system of choice.


Your benefits at a glance

▸ Complete burner management systems: A safety controller can safely control and monitor the furnace and the various burners.
▸ Intuitive safety software with configurable burner function blocks
▸ High productivity through integrated diagnostics and comprehensive visualisation options
▸ Numerous automation environments and communication systems available
▸ Maximum safety due to international certification and compliance with industry standards

Application of the automation system PSS 4000 enables burner control, largely irrespective of how many burners there are and how they are arranged.

PILZ
THE SPIRIT OF SAFETY

▶ Burner controllers for maximum safety and availability

Burner controllers help to perform various safety-related tasks: they ensure the safe firing of gas and oil burners in industrial thermoprocessing plants. And a critical factor here: easy handling and convenient operation. Whatever the complexity of your application, you can rely on one of the burner management systems (BMS) from Pilz. With this you can monitor, control and visualise not only safely-related functions along the gas control section, but also all additional plant-specific safety functions on commercial and industrial gas and oil furnaces. You can monitor several burners at the same time with just one BMS from Pilz.
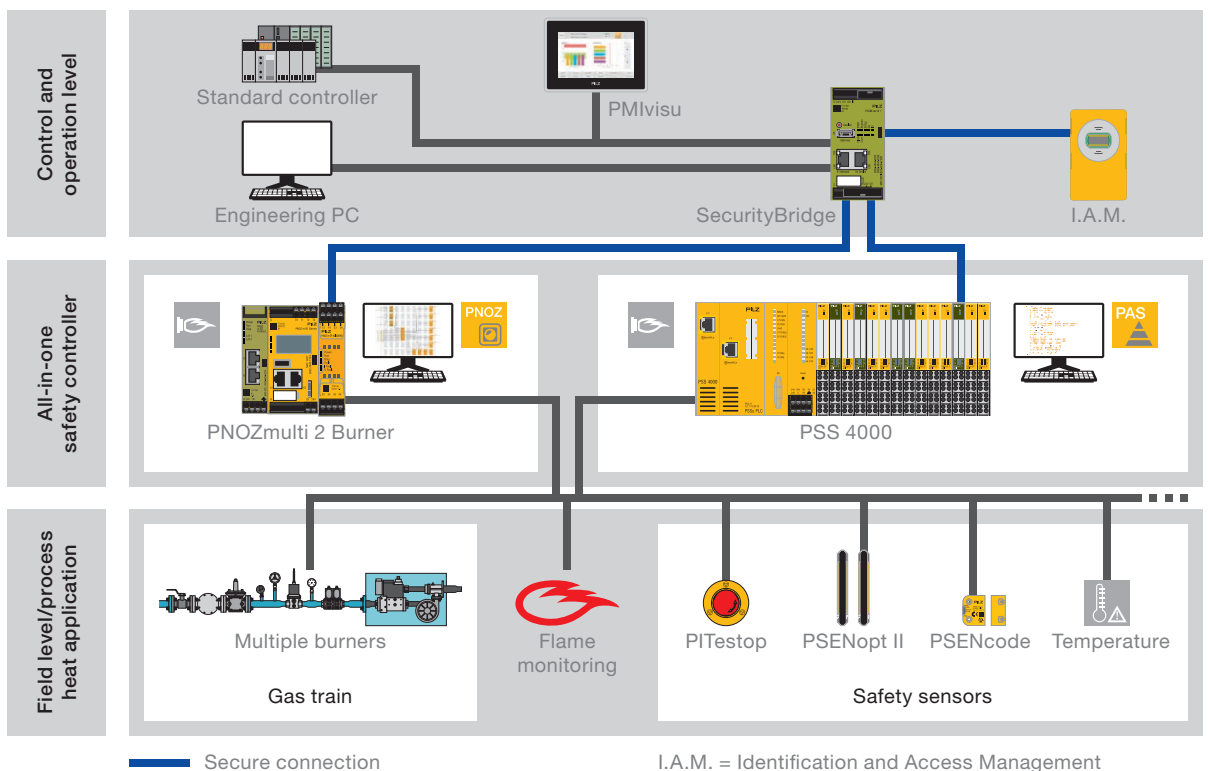

The all-in-one safety controllers – either PNOZmulti 2 Burner or the automation system PSS 4000 – for the safe control and monitoring of industrial thermoprocessing plants.

Certified burner management systems

The safe small controller PNOZmulti 2 Burner and the software are certified according to the relevant standards for thermal processes, steam boiler plants, automatic burner control systems and burners up to SIL 3 and PL e. The following standards were applied, among others: EN 298 and EN 50156. The burner function block is certified in accordance with application standards such as EN 267 and EN 676 for burners as well as EN 746-2, EN 12952

and EN 12953 for burner installations. Under UL 60730, PNOZmulti 2 is listed as a burner management system. It also complies with NFPA 85, 86 and 87 and the AGA (Australian Gas Association) lists PNOZmulti 2 as a certified product. The various certifications for the burner management systems make it easier for companies to access international markets. This benefits users on site, as it allows faster commissioning of firing plants.

PNOZmulti 2
Burner
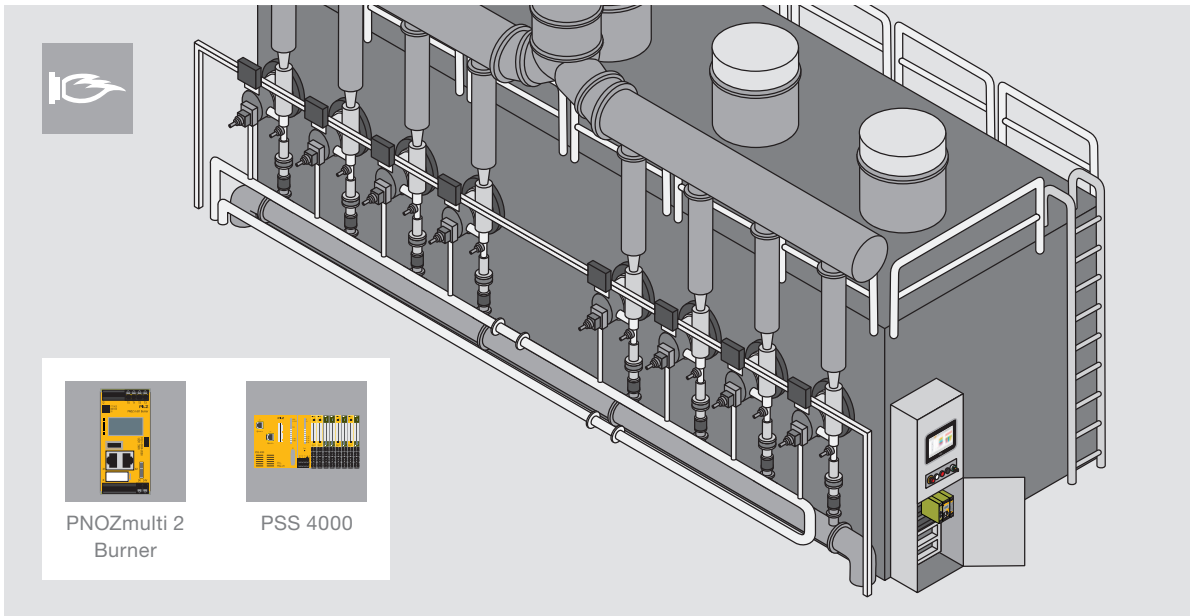
PSS 4000

Safe burner management systems from Pilz for controlling and monitoring several burners with just one system.
You can choose between PNOZmulti 2 and PSS 4000!

Safe small controller PNOZmulti 2 Burner

▸ Modular system: base unit PNOZ m B1 Burner
  and application-specific expansion modules incl.
  fieldbus communication

▸ Flexibly configurable in the software tool PNOZmulti
  Configurator: burner element (function block) emulates
  the extended functionality of an electronic automatic
  burner control

▸ Saves costs: configuration of up to 12 burner function
  blocks possible for each base unit

▸ Major time savings during design and engineering, as
  even complex safety applications can be implemented
  quickly and easily with just one small controller

▸ Data exchange and visualisation of operating statuses
  and diagnostic messages

▸ Can be integrated into existing automation structures

▸ Internationally certified as a burner controller

Automation system PSS 4000

▸ Modular system: PSSuniversal PLC as part of
  the automation system PSS 4000

▸ Can be freely programmed or configured in the
  software tool PAS4000: burner function block
  emulates the extended functionality of an electronic
  automatic burner control

▸ Shorter project planning times thanks to hardware-
  independent programming

▸ Largely independent of the number of burners
  to be controlled and their physical arrangement

▸ For complex interlinked plants

▸ Flexibility with I/O mapping in the application

▸ Can be used as a standalone controller
  or as part of a network

▸ Can be integrated into existing automation structures

▸ Certified in Europe as a burner controller

PNOZ m B1
Burner

PNOZ m EF
4DI4DORD

PSSu H PLC2
FS SN SD

Type	Technical features	Order number [1]
PNOZ m B1 Burner	Base unit PNOZ m B1 Burner ▸ Control and monitoring of thermoprocessing plants, e.g. monitoring of safety sequences, combustion air pressure, ignition, flame, external compound controller and leaktightness control; control of safety valves, ignition valves, exhaust valves, ignition, external compound controller and combustion air blowers ▸ Monitoring of the following oil and gas burner types possible: master burner with direct ignition, master burner with indirect ignition and joint flame monitoring ▸ Up to 12 burner function blocks can be configured per base unit ▸ Safety-related characteristic data: depending on the application up to PL e/Cat. 4 of EN ISO 13849-1 and Safety Integrity Level SIL 3 of EN IEC 61508 or EN IEC 62061 ▸ Certifications: PNOZ m B1 Burner CE, TÜV, UKCA, cUL Listed, EAC (Eurasian), KOSHA, AGA (Australian Gas Association). Certification to UL 60730-1/2-5 for PNOZ m B1 Burner, PNOZ m EF 16DI, PNOZ m EF 8DI4DO, PNOZ m ES PROFINET and PROFIBUS. More are in preparation. ▸ No licensing costs. Can be configured using the software tool PNOZmulti Configurator, from Version 11 ▸ Wide range of approved elements/blocks for monitoring safety functions such as emergency stop, safety gates, operating mode selector switches and much more ▸ Dimensions (H x W x D) in mm: 101.4 x 45 x 120 ▸ Supply voltage: 24 VDC	772 102 ▸ Plug-in spring-loaded terminals 751 016 ▸ Plug-in screw terminals 750 016
PNOZ m EF 4DI4DORD	Input and output module PNOZ m EF 4DI4DORD ▸ 4 safe inputs; 4 safe positive-guided relay outputs, diverse ▸ Suitable for control of a burner's safety valves ▸ Dimensions (H x W x D) in mm: 101.4 x 22.5 x 120	772 145 ▸ Plug-in spring-loaded terminals 783 540 ▸ Plug-in screw terminals 793 540
PSSu H PLC2 FS SN SD	Head module, application area: Standard/failsafe ▸ Can be configured using the graphics program editor PASmulti; programming in PAS IL (Instruction List), PAS STL (Structured Text), PAS LD (Ladder Diagram) and SFC (Sequential Function Chart) in accordance with EN IEC 61131-3 ▸ Application-specific use of electronics and/or compact modules upon request ▸ Safety-related characteristic data: depending on the application up to PL e/Cat. 4 of EN ISO 13849-1 and Safety Integrity Level SIL CL 3 of EN IEC 61508 or EN IEC 62061 ▸ Certifications: CE, UKCA, cULus Listed, TÜV, EAC (Eurasian) ▸ Dimensions (H x W x D) in mm: 125.6 x 130 x 83.7 ▸ Supply voltage: 24 VDC	312 077 ▸ Plug-in spring-loaded terminals 313 111 ▸ Plug-in screw terminals 313 110

🖑 Webcode:
web225351

Online information
at www.pilz.com

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