



PNOZmulti – For presses

pilz
more than automation
safe automation

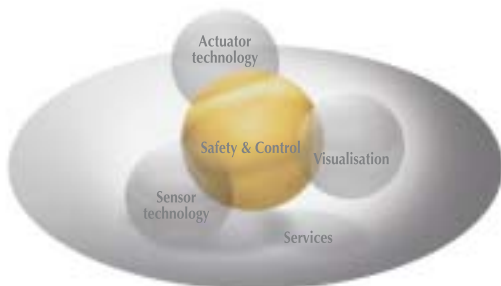
The modular safety system for controlling and monitoring presses and for press upgrades.

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Many functions, one solution!

▶ Safe automation



Solution supplier for safety and standard

Solutions from Pilz protect man, machine and the environment. That's why all our competency goes into innovative individual products, system solutions that are well thought through plus appropriate services.



You can find more details about Pilz and our products and services on the Internet:

▶ www.pilz.com



Technical support round the clock:

▶ +49 711 3409-444

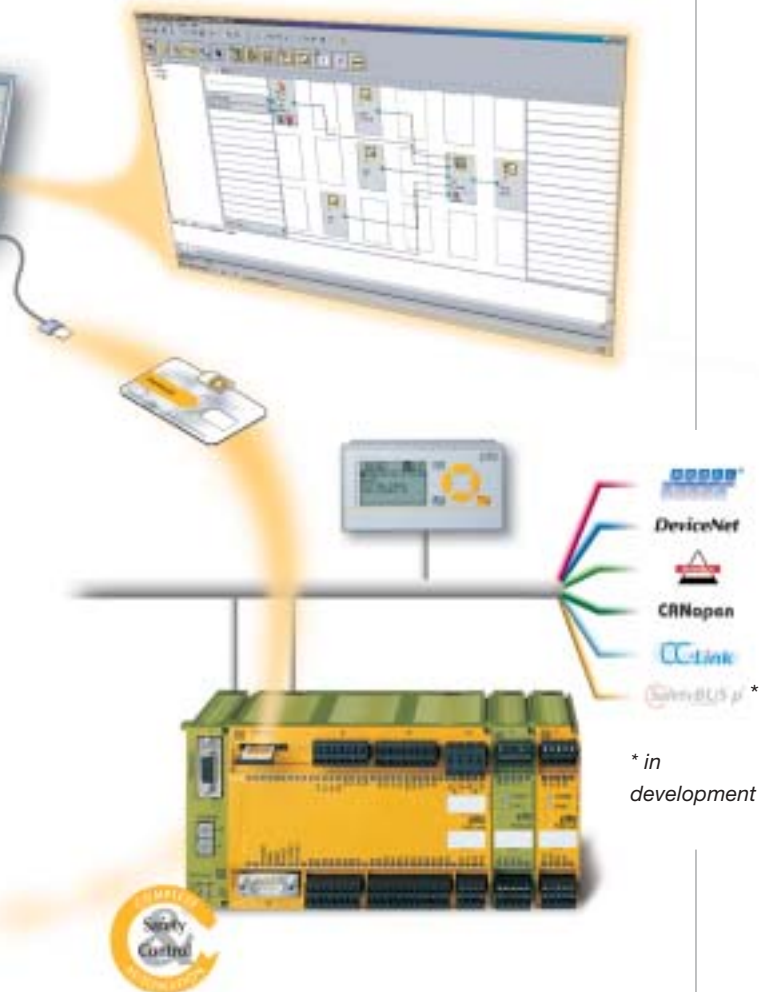
► Ingeniously simple, simply ingenious ...
... the **PNOZmulti modular safety system**

PNOZmulti is multifunctional, freely configurable and tailor-made for use in many areas of mechanical engineering. Safety functions such as emergency stop, safety gates, light barriers, two-hand control and many more are monitored safely. Even standard control functions are monitored. Instead of wiring, the safety circuit is generated on the PC using a graphics configuration tool that is simple to operate. The configuration is stored on a chip card and is downloaded to the PNOZmulti base unit. Compared with conventional solutions you can save over 40 % of your time and costs – in all engineering phases. You too can enjoy the benefits of PNOZmulti!





The high level of safety to Category 4 of EN 954-1 provides an international solution for the protection of man and machine that complies with the standards. Both hardware and software are approved by BG.



** in development*



► Take advantage of these benefits



- Increased productivity through one solution for safety and standard control functions
- Highest level of safety: press blocks that comply with the standards and are BG-approved
- Reduced costs through the use of proven standard components
- Simple, flexible solution, which can be adapted to suit your individual function
- Wiring is reduced to a minimum, saving a substantial amount of time during configuration and commissioning
- Saves space in the control cabinet as there are fewer contactors
- Fewer downtimes thanks to user-friendly diagnostics



EN

▶ PNOZmulti – Certified worldwide

PNOZmulti conforms to many standards and has numerous approvals:

- ▶ TÜV approval to EN IEC 61508, SIL 3
- ▶ BG approval: up to Category 4 of EN 954-1
 - DIN EN 692 – Eccentric presses (C standard)
 - DIN EN 693 – Hydraulic presses (C standard)
 - EN 12622 – Hydraulic press brakes (C standard)
- ▶ NFPA 79
- ▶ OSHA, ANSI, UL/cUL – The requirements for certification have been met

For details of other approvals please refer to the PNOZ Safety Relays leaflet.



VDE 0116

EN 954

NFPA 79

DIN V 19250

UL 508

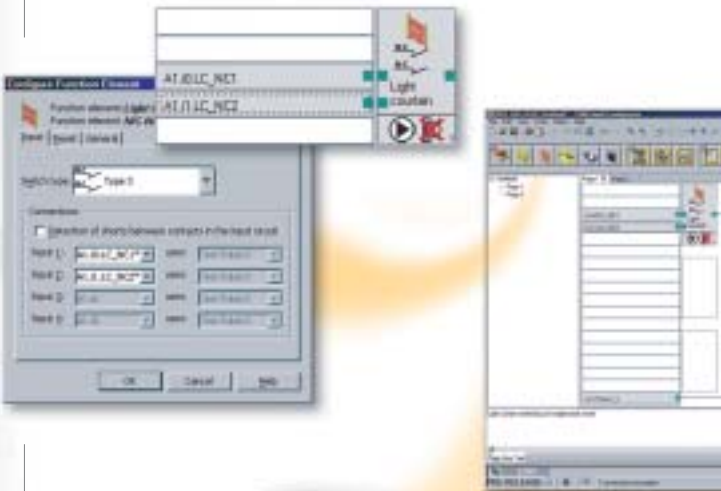
IEC 61508



▶ It's worth the effort

To start off you will need the new PNOZ m2p base unit for presses and the PNOZmulti Configurator from Version 4.0.0. All the necessary press functions are configured on the PC in the PNOZmulti Configurator. Specific BG-approved press blocks are available to monitor:

- ▶ Operating modes such as setup, single-stroke and automatic
- ▶ Monitoring of safety light curtains in single-break or double-break mode



- ▶ Camshafts with run monitoring/monitoring for broken shearpins
- ▶ E-STOP, two-hand, safety gate, foot switch
- ▶ Standstill and speed, using the expansion module PNOZ ms1p or PNOZ ms2p
- ▶ Press safety valves, using the dual-pole semiconductor module PNOZ mo3p

Once your application is configured it is stored on a chip card. The chip card is inserted into the PNOZ m2p base unit and simply wired up. Your press is ready to go.



*Press blocks –
simple and
flexible.*



▶ Safety solutions for presses

Presses unreservedly come under Category 4 of EN 954-1, as they have a high level of potential risk and an accident can result in serious injuries to the operator. Presses have different safety-related requirements, depending on their size and type. We can offer economical solutions for any press:

- ▶ On small and medium-sized presses it is possible to monitor up to 14 safety functions with just the PNOZ m2p base unit – in addition to the press functions.
- ▶ On large or distributed presses, PSS programmable safety systems or the safe bus system SafetyBUS p can be used.



► Economical press upgrade

Older presses are often dangerous, but that doesn't always mean they belong on the scrap heap. Modernised and upgraded to the latest level of safety technology, they can provide safety for man and machine.

Compared with buying a new machine, PNOZmulti is an efficient, flexible solution.

If the press does not undergo any functional changes, its continued use is protected. Pilz can also provide support with retrofit services, which make subsequent approval of the press by BG considerably easier.

Benefits of using PNOZmulti are:

- Use of approved safety
- Meets legal requirements
- Short downtimes, as the press can be upgraded quickly
- Flexible to new requirements



**Complexity/
safety functions**





▶ Always in the picture with PNOZmulti

Our solution is flexible and is guaranteed to be adaptable to your application. User-friendly diagnostic options are available via fieldbus connections. Signalling and control is two-way: in addition to diagnostic and status information, it is also possible to transmit controller information (commands) directly from the controller to the PNOZmulti via the fieldbus.

The diagnostic system PMImicro diag provides plain text messages to enable presses to be restarted quickly. It is possible to call up detailed information about the external wiring or the status of individual safety devices.



► Technical details – PNOZmulti

Modular safety system – PNOZmulti



PNOZ m2p

Base unit –
Specifically for press applications

In accordance with EN 954-1, up to Category 4: Monitoring operating modes such as setup, single-stroke and automatic, safety light curtains in single-break and double-break mode, camshafts with run monitoring/monitoring for broken shearpins, press safety valves, E-STOP, two-hand buttons, safety gates, scanners, enable switches, PSEN safety gate switches, operating mode selector switches.

- ▶ 20 freely configurable safety inputs
 - ▶ 1 safety input for run monitoring / monitoring for broken shearpins
 - ▶ 4 test pulse outputs, 1 auxiliary output
 - ▶ 2 safety outputs using semiconductor technology (Cat. 4)
 - ▶ 1 safety output using relay technology (Cat. 4)
 - ▶ 1 safety output for cascading
 - ▶ Configurable using PNOZmulti Configurator via chip card or RS 232 interface
 - ▶ Diagnostic interface
 - ▶ Max. 8 expansion modules and 1 fieldbus module can be connected
-
- ▶ Supply voltage (U_B): 24 VDC
 - ▶ Dimensions (H x W x D): 94 x 135 x 121 mm

Order numbers:

- ▶ 773 120 – Without terminals

Accessories:

- ▶ 783 100 – Set of cage clamp terminals
- ▶ 793 100 – Set of plug-in screw terminals

For further technical details on the modular PNOZmulti safety system please refer to the PNOZ Safety Relays leaflet, from page 54.





► Technical details – PNOZmulti

Software – PNOZmulti



PNOZmulti Configurator configuration software

- ▶ Runs under Windows® 2000/NT 4.0 (SP6) and XP
- ▶ Project configuration, configuration generation, documentation, commissioning
- ▶ Data transfer via standard serial cable or via a chip card
- ▶ Graphic configuration of safety circuit

Order numbers:

- ▶ 773 000 – Documentation folder with software on CD-ROM¹⁾
- ▶ 773 000D – Software incl. documentation on CD-ROM ¹⁾
- ▶ 773 010... – Licence type ²⁾



PNOZmulti Service Tool

- ▶ PNOZmulti Service Tool is a supplement to the configuration software PNOZmulti Configurator
- ▶ Purpose: Troubleshooting and diagnostics for service and maintenance; downloading projects
- ▶ Any options that modify a project are disabled, i.e. the service tool is unable to change a project

Order numbers:

- ▶ 773 005 – Documentation folder with software on CD-ROM ¹⁾
- ▶ 773 011... – Licence type ²⁾

Accessories – PNOZmulti



PNOZmulti Tool Kit

- ▶ The Tool Kit contains the accessories you need to start working with PNOZmulti:
 - Documentation folder with the PNOZmulti Configurator
 - Chip card reader to write and save the configuration on to a chip card
 - Chip card set consisting of 10 chip cards, including a chip card adapter for rewriting chips removed from the chip card
 - Configuration cable for reading diagnostic data

Order numbers:

- ▶ 779 000 – PNOZmulti Tool Kit

Accessories:

- ▶ 779 230* – Chip card reader
- ▶ 779 200* – Chip card set
- ▶ 310 300* – Configuration cable
- ▶ 773 000* – Documentation folder with PNOZmulti Configurator on CD-ROM ¹⁾
- ▶ 773 010... – Licence type ²⁾

* For use only with subsequent orders.

¹⁾ Please order licence separately; it is required in order to enable the software.

²⁾ Please state the type of licence you require after the order number (...B for basic licence; ...K for user licence, ...G for project licence), e.g. 773 010B.

Time-restricted licences for PNOZmulti Configurator:
...S (2 months), ...R (3 months) or ...Q (4 months).



Current information on our PNOZ safety relays is available at www.pilz.com. Many documents are available to download as PDF files under the Download category.

- ▶ Data sheets
- ▶ Application manuals
- ▶ References
- ▶ Promotional literature and much more

You can also request information from the address below.

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In many countries we are represented by our subsidiaries and sales partners.

Please refer to our Homepage for further details or contact our headquarters.

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