

## ► Safe packaging

### Packaging machines

Efficient, economical packaging processes require a high level of automation. At the same time, the Machinery Directive places basic demands on functional safety. In practice, safety, modularity and automation must go hand in hand. With our experience in the packaging technology industry, we can certainly provide support!

#### **Safe automation technology – from the expert:**

- Increase the availability of your plant.
- Put your trust in tailor-made solutions for small packaging machines through to large, networked plants.
- Benefit from customised services such as one-stop consulting and professional engineering through to specific user training.
- With Pilz you are putting your trust in technologies that are established and certified worldwide.

#### **Pilz solutions offer:**

- Economical maintenance due to visualisation and diagnostics
- Time and cost savings due to simple configuration and programming software
- Communication networks and decentralised system architectures
- Intelligent dovetailing of safety and automation tasks, such as axis synchronisation and safe motion monitoring
- Modular, flexible solutions for new designs and upgrades of existing plants, up to PL e of EN ISO 13849-1 and up to SIL CL 3 of EN/IEC 62061
- Hygienic design supported by IP69 K



## ► Safe automation for packaging technology

The comprehensive portfolio of automation components and systems includes: safe sensor technology, controllers, operator and visualisation systems through to drive technology and the appropriate cabling accessories.

### 1 Configurable control systems PNOZmulti 2

- Implementation of multiple safety functions
- Open system, connection to all network systems
- Safe motion monitoring functions in accordance with EN 61800-5-2 for safe monitoring of drives
- Easy to configure, simple software tool
- Everything in view with the web-based visualisation software PASvisu, see number 7

### 2 3 Servo amplifier with safety card PMCprotego D+S and PM Ctendo SZ

- Synchronisation of various axes
- Short cycle times and high performance
- High process quality with low tolerances
- Safe motion drive-integrated safety functions up to PL e/SIL 3 with very short reaction times
- Energy saving with servo motors PM Ctendo SZ

### 4 E-STOP pushbutton PITestop active

- Customised E-STOP for the smart factory
- Electrically activated and only illuminated in the active state

### 5 Coded safety switches PSENcode

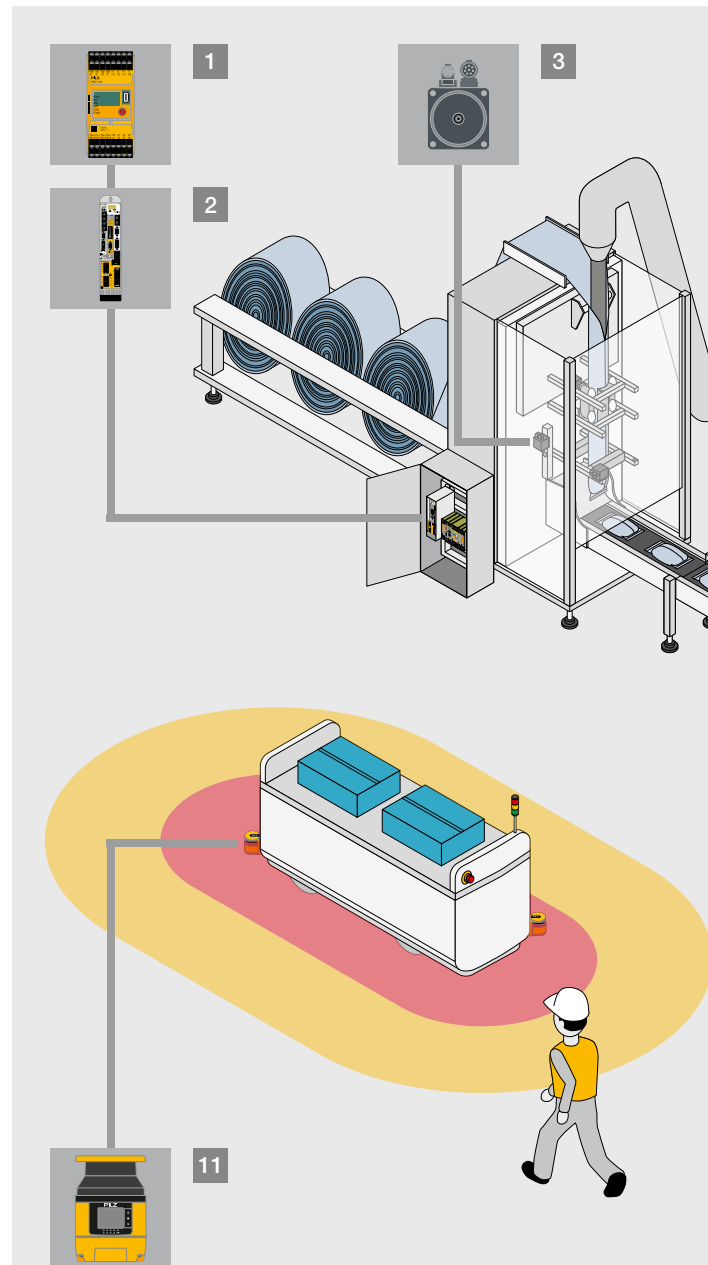
- Position monitoring of guards
- General position monitoring

### 6 Operator terminals PMlvisu

- Visualisation terminal has the pre-installed visualisation software PASvisu
- For professional operating and monitoring

### 7 Visualisation software PASvisu

- Web-based software for visualisation of your automation solutions
- Remote access with genuine client/server functionality
- Optimum linking of control and automation project

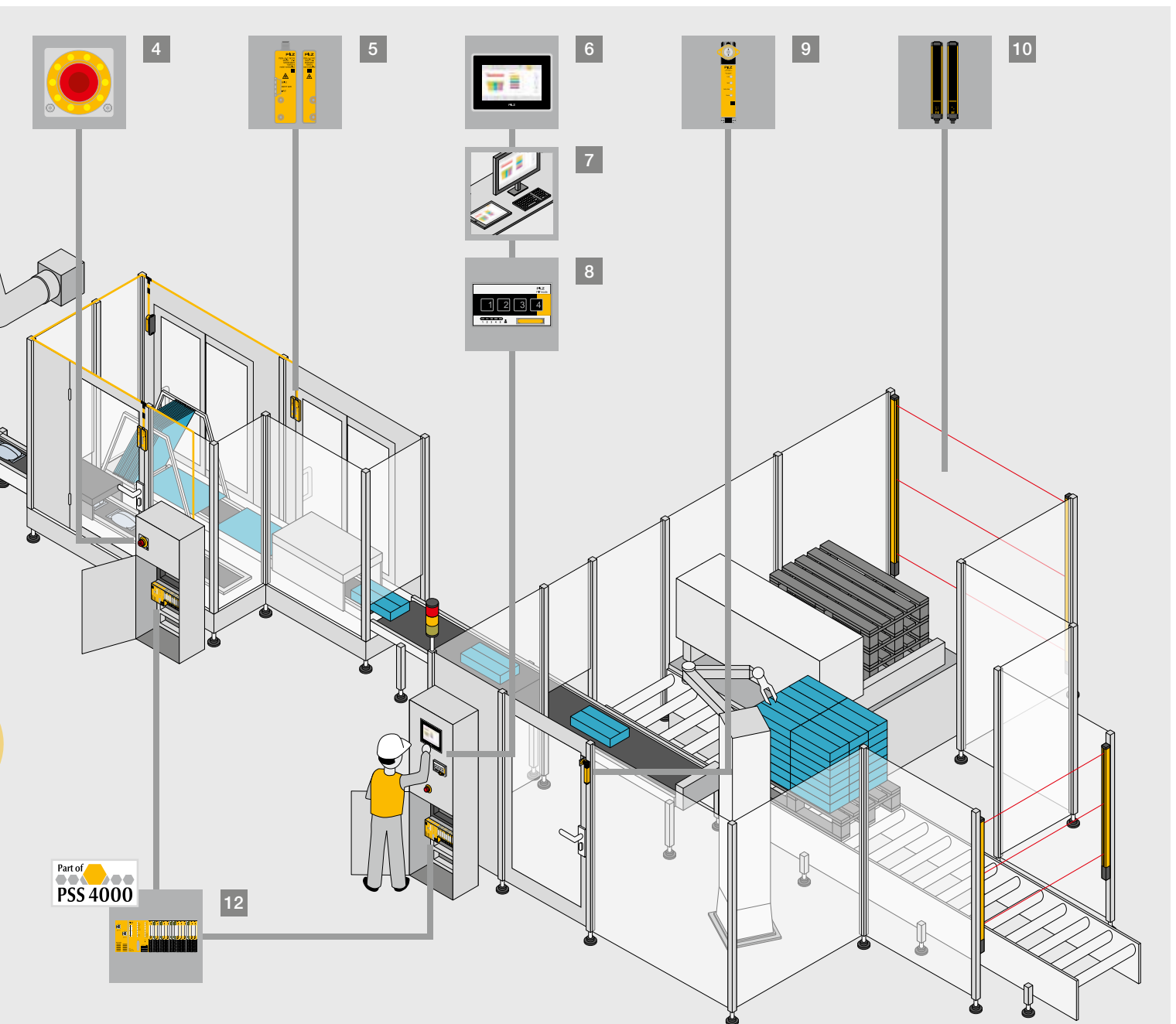


Communication protocols:



OPC UA





**8 Operating mode selector switch PITmode**

- ▶ Safe switching of operating mode and control of access authorisation
- ▶ Safety and security in one unit

**9 Safety gate system PSENmlock**

- ▶ Safe interlock and safe guard locking up to PL e in one product
- ▶ High holding force of 7 500 N
- ▶ Easily visible diagnostics when installed thanks to LEDs on three sides of the housing
- ▶ Robust design for a long service life

**10 Light beam devices PSENOpt**

- ▶ Safeguarding where intervention is required as part of each cycle, e.g. insertion work or transporting material in and out
- ▶ Flexible due to advanced functionalities such as muting, blanking and cascading

**11 Safety laser scanner PSENscan**

- ▶ Productive area monitoring for stationary and mobile area guarding, e.g. automated guided vehicles and access monitoring
- ▶ Series connection of up to four scanners in accordance with the master-slave principle
- ▶ Simultaneous monitoring of up to three separate zones

**12 Automation system PSS 4000**

- ▶ One environment for safety and automation
- ▶ Optimum control of interlinked plants
- ▶ Engineering work is reduced due to the high level of standardisation
- ▶ Complex functions easy to configure and program
- ▶ Everything in view with the web-based visualisation software PASvisu, see number 7

**Your benefits at a glance**

- ▶ Modularity in automation in the spirit of the smart factory
- ▶ High flexibility and extensive diagnostic options
- ▶ Efficient production with complete safety using the safe drive solution from Pilz
- ▶ Standard plug-in sensor cables provide fast, economical installation
- ▶ Simple project configuration thanks to the use of multifunctional and freely configurable safety relays
- ▶ Space-saving thanks to the use of IP67 housings, directly on the machine
- ▶ Good energy cost ratio due to savings potential on hardware, motion sequences and software parameter settings

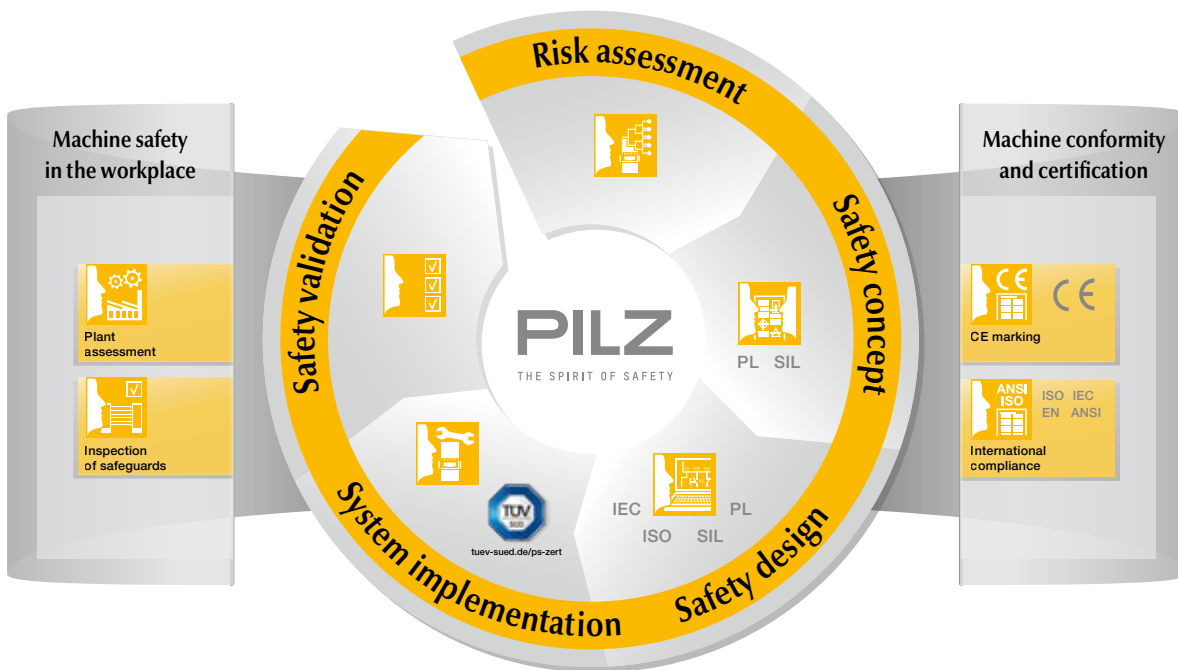


Webcode:  
web0749

Online information  
at [www.pilz.com](http://www.pilz.com)

## ► Services to cover the entire machine lifecycle

As a solution supplier, Pilz can help you implement the relevant standards and directives and develop an optimum safety strategy for your packaging machines worldwide. The range of services encompasses the whole machine lifecycle and is complemented by a training package with practical, up-to-date content.



### Risk assessment

We inspect your machinery in accordance with the applicable national and/or international standards and directives and assess the existing hazards.



### Safety validation

In the safety validation, the risk assessment and safety concept are mirrored and inspected by competent, specialist staff.



### Safety concept

We develop detailed technical solutions for the safety of your plant and machinery through mechanical, electronic and organisational measures.



### CE marking

We control all activities and processes for the necessary conformity assessment procedure, including the technical documentation that is required.



### System implementation

The results of the risk analysis and safety design are implemented to suit the particular requirements through selected safety measures.



### CMSE

Qualifications for success:  
CMSE – Certified Machinery Safety Expert is the international qualification for machinery safety – exclusively at Pilz.

# ► Support

Technical support is available from Pilz round the clock.

## Americas

### Brazil

+55 11 97569-2804

### Canada

+1 888-315-PILZ (315-7459)

### Mexico

+52 55 5572 1300

### USA (toll-free)

+1 877-PILZUSA (745-9872)

## Asia

### China

+86 21 60880878-216

### Japan

+81 45 471-2281

### South Korea

+82 31 450 0680

## Australia

+61 3 95600621

## Europe

### Austria

+43 1 7986263-0

### Belgium, Luxembourg

+32 9 3217575

### France

+33 3 88104000

### Germany

+49 711 3409-444

### Ireland

+353 21 4804983

### Italy, Malta

+39 0362 1826711

## Scandinavia

+45 74436332

## Spain

+34 938497433

## Switzerland

+41 62 88979-30

## The Netherlands

+31 347 320477

## Turkey

+90 216 5775552

## United Kingdom

+44 1536 462203

**You can reach our  
international hotline on:**

+49 711 3409-444

support@pilz.com

Pilz develops environmentally-friendly products using ecological materials and energy-saving technologies. Offices and production facilities are ecologically designed, environmentally-aware and energy-saving. So Pilz offers sustainability, plus the security of using energy-efficient products and environmentally-friendly solutions.

*Energy  
saving by Pilz*



Presented by:



We are represented internationally. Please refer to our homepage [www.pilz.com](http://www.pilz.com) for further details or contact our headquarters.

Headquarters: Pilz GmbH & Co. KG, Felix-Wankel-Straße 2, 73760 Ostfildern, Germany  
Telephone: +49 711 3409-0, Telefax: +49 711 3409-133, E-Mail: [info@pilz.com](mailto:info@pilz.com), Internet: [www.pilz.com](http://www.pilz.com)

**PILZ**  
THE SPIRIT OF SAFETY