

► **Safe. Modular.**
And for the digital railway.

Our safe and modular control solutions
for railway infrastructure

PILZ
THE SPIRIT OF SAFETY





► The Spirit of Safety in Digital Automation





With everything we do, we make the world a safer place. This is apparent in every idea, every product and every solution that's developed at Pilz. We always focus on our customers' needs and are passionate about supplying them with cutting-edge technology and the very best quality.

Today, Pilz is a global supplier of automation products, solutions and services with around 2 500 employees. The topics of digitisation and industrial security play an increasingly important role. Our digital business models offer our customers maximum benefits. Interlinked production and industrial plants must be protected against errors, whether caused intentionally or unintentionally. Pilz believes that only a holistic approach to safety and security can guarantee the comprehensive protection of humans and machinery.

For more than 75 years, Pilz has been providing inspiration with its innovative product developments and comprehensive services. Our end-to-end, individual concepts for safety, security and automation support our customers around the world in the implementation of their solutions. This is what we, as a family business steeped in tradition, stand for with our employees – each one an “Ambassador for Safety”.

In developing our solutions for safe and digital railway automation, we are committed to our core competency of safety. We provide you with a tried and tested safety solution for railway infrastructure applications and help to advance the digitisation of the railway industry with our safe, modular control solutions. You benefit from our many years of experience in safe automation technology. We bring this experience to our solutions for the railway industry.



Sensor technology



Relays



Small controllers



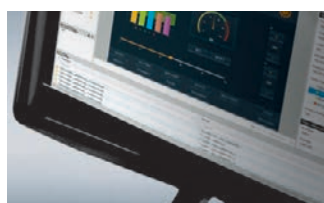
Controllers



Drive technology



Operation and monitoring



Software



Services



Sebastian Lüke

Head of Business Unit Rail, Pilz GmbH & Co. KG


“ With the safe, modular railway control system PSSrail, we are setting new standards in the digitisation of railway infrastructure. With PSSrail, system suppliers and integrators now have a tool they can use to implement the necessary rail digitisation economically and flexibly. ”



► We digitise
your infrastructure
for rail transport

Rail transport needs digitisation: Many railway infrastructure systems are outdated and in urgent need of modernisation. Modern, digital railway automation can improve the reliability of rail transport. We can provide support with proven safety solutions for the requirements presented by digitisation of the railway industry.

Our safe, modular railway control system PSSrail forms the basis for the digitisation of railway infrastructure: We offer you a modular system that can be used flexibly and universally and can thus be easily adapted to your individual requirements. Use PSSrail for various applications in the field of signal technology such as electrical locally operated points, level crossings or digital interlocking technology. Use PSSrail as an Object Controller Platform so that control of the field components along the track is digital, and therefore reliable and economical.

 Webcode:
web8485

Additional information at
www.pilz.com/railway



+ Securing level crossings to SIL 4

Our solution for railway automation monitors the signal technology of a level crossing, such as the level crossing monitoring signal as well as the signal encoder for road traffic. This guarantees that both the train driver and road traffic are given a signal that the level crossing is secured. If this is not the case, the train must be stopped.

+ Monitoring of electrical locally operated points (LOP)

Our railway control system detects the position of the points via the point mechanism and activates the point position indicator to ensure that the end position of the points is correctly displayed for the train driver on the point position indicator. Our railway control system also ensures that the LOP cannot be adjusted as long as there is still a rail vehicle near the LOP.



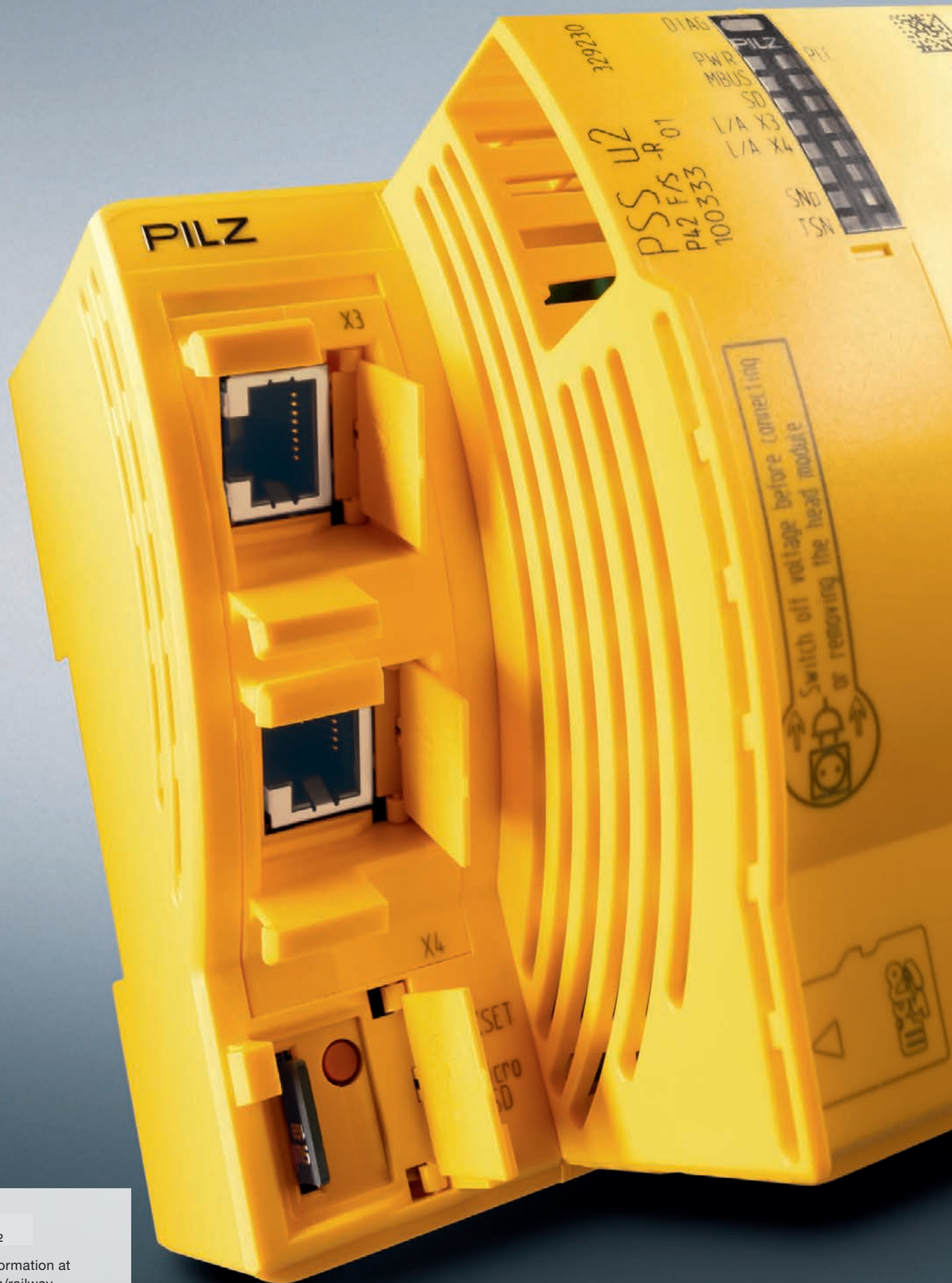
+ Networking of proprietary infrastructure using Object Controllers

The decentralised interlocking works with Object Controllers, meaning that the actuation is situated directly at the track element that is to be controlled. All that is required here is connecting Ethernet and supply voltage to the array elements. Extensive wiring over several kilometres is not necessary. Our system monitors the same safety functions with this application as with a centralised interlocking system without an Object Controller.

+ EULYNX Adapter

For digitisation of the railway industry, we worked with ProRail, the largest railway infrastructure operator in the Netherlands, to develop our PSSrail railway control system as a EULYNX Adapter. It can be used to convert incoming signals, to or from interlockings for example, into control commands, based on the communication protocol RaSTA. The Object Controller thus interprets the commands and controls the points.





Webcode:
web242132

Additional information at
www.pilz.com/railway



► The heart of our solutions

The safe, modular railway control system PSSrail

With PSSrail, we present a safe, modular railway control system to revolutionise the digital railway.

Your benefits at a glance:

► **Modularity**

Thanks to the modular design, individual requirements can be ideally and flexibly implemented, tailored to your needs.

► **Digitisation**

We are committed to standardisation and openness with PSSrail. Our control system is compatible with the EULYNX standard, thus paving the way for the implementation of digitisation projects in railway infrastructure.

► **Flexibility**

You can use PSSrail for the most varied applications in the railway infrastructure field, including electrical locally operated points or level crossings, as well as in digital interlocking technology. In this case, for example, PSSrail can be used as an Object Controller Platform, so that control of the field components along the track is safe and digital, and therefore reliable and economical.

► **Safety and openness**

With railway approval and the highest safety standards up to SIL 4, the system meets all safety requirements. There is no vendor lock-in as our railway control system can be integrated into any number of solutions.



► Partners and references

 **ARCADIS**

 **DES**

 **EULYNX**

Multitel
INNOVATION CENTRE

PINTSCH
Safety for Rail

ProRail

relesoft
Reliable Smart Solutions

 **RGS**
BAHNSICHERHEITSTECHNIK

SCHWEIZER
ELECTRONIC

SWECO 

 **TRAFIKVERKET**



► We're a member of



► We are your partner for

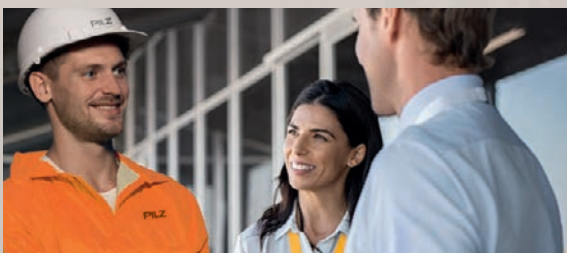
Safety experts



Our core competency is safety and we bring this to bear in our safe and digital railway automation solutions. We offer a tried and tested safety solution for railway infrastructure applications requiring up to SIL 4.

railway technology

Solution supplier



From the monitoring and control of level crossings to the electrical locally operated points (LOP) and the EULYNX Object Controller, we offer a flexible platform that can be adapted to your individual requirements. Invest in the future automation of the railway and benefit from innovative, safe and digital solutions.

Digitiser



Pilz is a pioneer in the development of digital solutions for modern requirements in railway infrastructure. We support the work of EULYNX, an organisation of western European railway infrastructure operators, whose mission is to develop and provide uniform standards for new, modular interlocking technology. Pilz will take you safely and reliably into the digital future!

Do you have
any questions?
Please contact us!

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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.



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