



Passenger
Information
Systems



Railway
Communication
Systems



Railway
Facility
Monitoring
Systems



Ticketing
Systems



ecoMOTO
EV Charging
Stations





As Polish manufacturers and suppliers of dedicated communications systems for railway and other industries, as well as fee collection systems, we comprehensively equip railway stations and stops with passenger information systems.

We have been creating and providing system solutions for railway transport since 1852. We started with signalling devices but as technology progressed, we expanded our product offer to meet the requirements and expectations of clients and equipment users.

Today, the vast majority of Polish railway stations are equipped with our dynamic passenger information systems.

We also provide railway facility monitoring systems and railway communication systems for secure connection between stations.

Currently, KZŁ parking meters, mobile ticket vending machines and EV charging stations operate in dozens of locations across Poland, in cities, companies or public transport systems. Partner with us for tested and reliable solutions, and full ongoing support.

We have been manufacturing devices and systems for over 165 years. Our company produces original mechanical, electronic and software solutions so we provide quick support and upgrade of solutions already in use.

Being part of the strong and stable PKP Group guarantees the best project execution and management, as well as support in terms of advanced transportation systems.

Our excellent staff of constructors and programmers enables us to provide customized system solutions. With this in mind, we propose close cooperation to create modern, innovative products that meet requirements across today's public transport market.

Our products are supported by 24-hour service, guaranteeing continued operation of the most demanding security and information distribution systems.

KZŁ has received a number of awards and distinctions for its innovative design solutions, and for putting them into production. Our latest awards include: Company of the Year 2019, Gold Medal of the Polish Success Academy, Ekolnspiracja 2017, Gazeta Biznesu 2017, Forbes Diamond, EcoVadis 2016 silver rank, Poland Now award received during the latest (25th) anniversary edition of this prestigious contest, Polish Economy Promoter and Employer of the Year in Pomerania and Kujawy.

We belong to: The Polish Chamber of Railway Equipment Producers and Railway Service Providers, The Polish Alternative Fuels Association, The Railway Business Forum and Employers of Pomerania and Kujawy.



Passenger Information Systems

- > time signalling system
- > integration with CASDIP
- > visual information at stations, platforms and stops, in accordance with Ipi-6
- > public address system in accordance with Ipi-6

Information is the most valuable thing in business. Public transport is an industry that cannot function correctly without good information flow. Thanks to our solutions, carriers, operators, local governments or individuals can effectively communicate with customers.

Our advanced public address systems, combined with professional displays, will certainly reach recipients and, most importantly, provide information that is legible and comprehensible. Most Polish stations are equipped with a system that uses different types and formats of information media, depending on the needs of the station.

We were the first to integrate with CASDIP and launch Ipi-6 compatible devices.



The system can also be successfully used at airports, stadiums and other places where it helps improve the flow of people.

The main parts of the system are information displays, public address devices and clocks. LCD-TFT or (optionally) LED displays can be used. Other system components are infomats and connection search engines, which guarantee optimized access to information. System installation is tailored to site-specific requirements and capabilities, resulting in good reception of broadcast messages. The system is flexible, which allows you to add additional devices if necessary in the future.



We are an unquestioned leader in the supply and installation of comprehensive passenger information systems at railway stations in Poland. We were the first to produce, install and launch Dynamic Passenger Information Systems integrated with the Central Application of the Dynamic Passenger Information System (CASDIP) of PKP PLK SA at railway stations. The devices that we install at Polish stations are designed in accordance with the latest guidelines issued by PKP Polskie Linie Kolejowe SA, i.e. Ipi-6.

Audio systems, displays (in cooperation with Platan Sp. z o.o. sp. k.), as well as train presence detectors, also manufactured by our company, have all been integrated.



Railway Communication Systems

- > **required certificates**
- > **VoIP subscribers' service**
- > **guaranteed and secure communication and data transmission**
- > **secured rail traffic management**
- > **support for an external call recorder**
- > **dedicated links**
- > **traffic control safety**
- > **4-level safety system**
- > **operation of external dispatch desks**

The Railway Communication System (SLK) is a multi-task system that meets all railway requirements in the field of technological communication. Its main function is to ensure communication between traffic dispatchers or authorized persons supervising rail traffic. The system has been approved for use in railways.

In railways, multidirectional communication between all posts within a given railway station, neighbouring stations, section dispatchers and railway posts located along a given route makes the system exceptional in many ways. At the same time, the advantages of the system, proven through many years of use in railways, mean it can be successfully used in other areas.

The dispatching communication system enables other necessary rail services, e.g. platform announcements using hand-held consoles or automatic broadcast servers, at the ISDN or PRA interface. The new generation SLK control panel is energy-saving; moreover, it saves on operating costs through a developed remote access system (e.g. for diagnostics and recording).

SLK has the ability to integrate with many other systems and external elements, making it universal, and its potential is practically unlimited. The system also works well in crisis management centres, transport management, rescue services, etc.

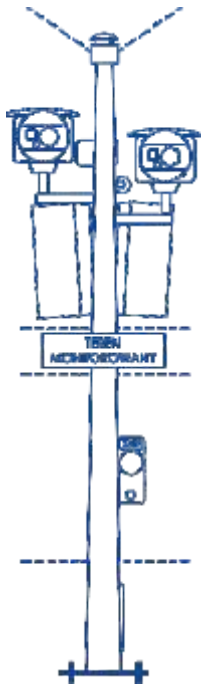


The dispatching communication system is compatible with all dispatching communication solutions in use on railways in Poland.



Railway Facility Monitoring Systems

The Railway Facility Monitoring System (SMOK) is designed for remote, visual monitoring of railway equipment or situations/events in places, whether unsupervised or supervised by humans, in order to increase the safety of controlling and managing railway traffic in its widest sense.



The main purpose of SMOK is to monitor and archive data for the following facilities:

- > railway crossings serviced remotely or locally (system compliant with the Ie-111 instruction for Boraz Ie-118 category crossings for A category crossings)
- > end-of-train detection units (SKP)
- > railway stations, platforms, stops, signal towers and sidings (system in accordance with Ipi-4 guidelines)
- > automation and railway power equipment
- > other facilities particularly vulnerable to undesirable interference

The system can optionally be equipped with business analytics enabling:

- > licence plate and face recognition
- > detection of unusual behaviour
- > detection of transgression of designated areas
- > detection of left luggage and removed items
- > monitoring of passenger streams, groups of people, etc.

- > **PSIM integration platform**
- > **systems in accordance with applicable guidelines**
- > **recording and sending images from cameras to the operator's station**
- > **motion detection and sending alarms to the operator**
- > **live view day and night**





Locomat Ticketing Systems

> **accepted payment methods: coins, banknotes, payment cards (contact and contactless), travel cards**



Locomat ticket vending machines constitute a whole family of multipurpose devices allowing you to increase customer flow and improve the ticket sales process. Buying a ticket is intuitive and simple, and the number of steps necessary to finalise the purchase has been minimised.

Considering today's pace of life and high service standards, our devices are perfect for the sale of classic train tickets as well as in urban transport, parking lots, cinemas and the catering industry.

Automatic ticket sales are now part of every sales system. Our devices feature a number of innovative solutions. They work with price modules and databases, which allows you to buy a specific ticket, including statutory discounts.

Locomat ticket vending machines support various payment methods (cash - banknotes and coins, payment card, travel cards, mobile payments), depending on the buyer's requirements. We offer devices that give change, with the option of programming the way it is given, as well as standard devices that do not give change.

An additional element facilitating the management of a set of devices is a dedicated programme that remotely collects all necessary data and sends it to the billing system.





ecoMOTO and ecoMOTOhome

AC electric vehicle charging stations

High ergonomics:

- > easy and comfortable operation
- > readable touch display
- > proximity card support (RFID)
- > payment card support

Fully manageable:

- > management via the OCPP protocol
- > management via the WebPark system
- > management by another master system

Ideal for:

- > streets
- > closed and open car parks
- > underground car parks
- > park & ride car parks
- > office buildings
- > shopping centres and hotels

Parking system:

- > as part of paid car parks with limited access
- > as a parking meter that accepts card payments
- > as an added value item in a car park (for residents or contractors)

Secure:

- > certified for compliance with industry standards
- > made of LDX duplex steel sheet
- > 3 security levels
- > built-in emergency switch
- > alarm system (optional)

Modular design:

- > parameters can be changed
- > any colours
- > socket adaptation possible

The station features a system enabling remote supervision, management and servicing of the device.

EcoMOTO electric vehicle charging stations comply with the following standards:

- > EN 61851 specifying e.g. characteristics and operating conditions as well as safety requirements for EV power equipment
- > PN-EN 60950 regarding safety
- > PN-EN ISO 14001 regarding the use of materials that are not harmful to the environment, noise, heat and electromagnetic interference



ecoMOTO is an easy-to-use device, equipped with a 7" touch screen, by means of which the driver selects the position and amount of electricity. The payment for electricity is made by means of a proximity payment card. The charging starts and the receipt is printed after the fee has been charged and credited to the energy supplier's account. The unused energy paid for in a given charging session can be used at a later date.



With ecoMOTOhome, payment for energy consumption or user identification can be made using a "MiFare" proximity card (resident/employee card, travel card).

- > **simultaneous charging of two vehicles**
- > **intuitive operation**
- > **any colour**

Recommendations and certificates:

- > Compliance certificate JSHP/55/CZ/2018
- > Eko Inspiracja 2017
- > EcoVadis 2017 silver rank

KEY ACHIEVEMENTS SINCE 1852

- 2018 ---○--- Joining the PKP capital group
First installations of devices compatible with Ipi-6
- 2017 ---○--- Launching the production of EV charging stations.
Integration with CASDIP
- 2016 ---○--- Obtaining IRIS and ISO 27001 certificates
- 2013 ---○--- Joining the PKP INFORMATYKA capital group
- 2010 ---○--- Installation of innovative passenger information systems
- 2009 ---○--- Implementation of modern toll systems
- 1974 ---○--- Development and construction of headquarters
- 1950 ---○--- Change of name to PKP Kolejowe Zakłady Łączności
- 1945 ---○--- Founding of PKP Warsztaty Elektroniczne
- 1920 ---○--- Founding Warsztaty Sygnałowe
- 1852 ---○--- Founding Warsztaty Telegraficzne

WE PROVIDE

DESIGN

SUPPORT

INSTALLATION

EXPERIENCE

SECURITY

COMPLIANCE WITH
STANDARDS

QUALITY



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Kolejowe Zakłady Łączności sp. z o.o.

📍 ul. Ludwikowo 1
85-502 Bydgoszcz

☎ +48 52 518 36 70

📠 +48 52 518 56 10

@ biuro@kzl.com.pl

🏠 www.kzl.pl