

We're here for you

YOUR PARTNER FOR SAFETY



Focused on our customers // Whether you need a standard or bespoke solution, we have the right system. Flexibility is extremely important to us. We are always there to support you as your competent and reliable partner thanks to many years of experience with rail worksites, flexible solutions and our ability to deliver immediatley.



Team // A team of over 195 employees in Kiel is behind the name ZÖLLNER. Development, product management, production, training, sales, settlement and after sales: We take care of everything at one place.



24/7 support // Our 24/7 support hotline is available to you around the clock. Experienced technicians advise you if you have problems on your worksite or help you on site, if needed.



Academy // We are an acknowledged educational provider and offer practice-related training courses through our own training centre, the ZÖLLNER Academy. Our training programmes will bring you up to speed and teach you how to safely use components from our company – either in our excellently equipped Academy or on your premises.

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Security "Made in Germany"



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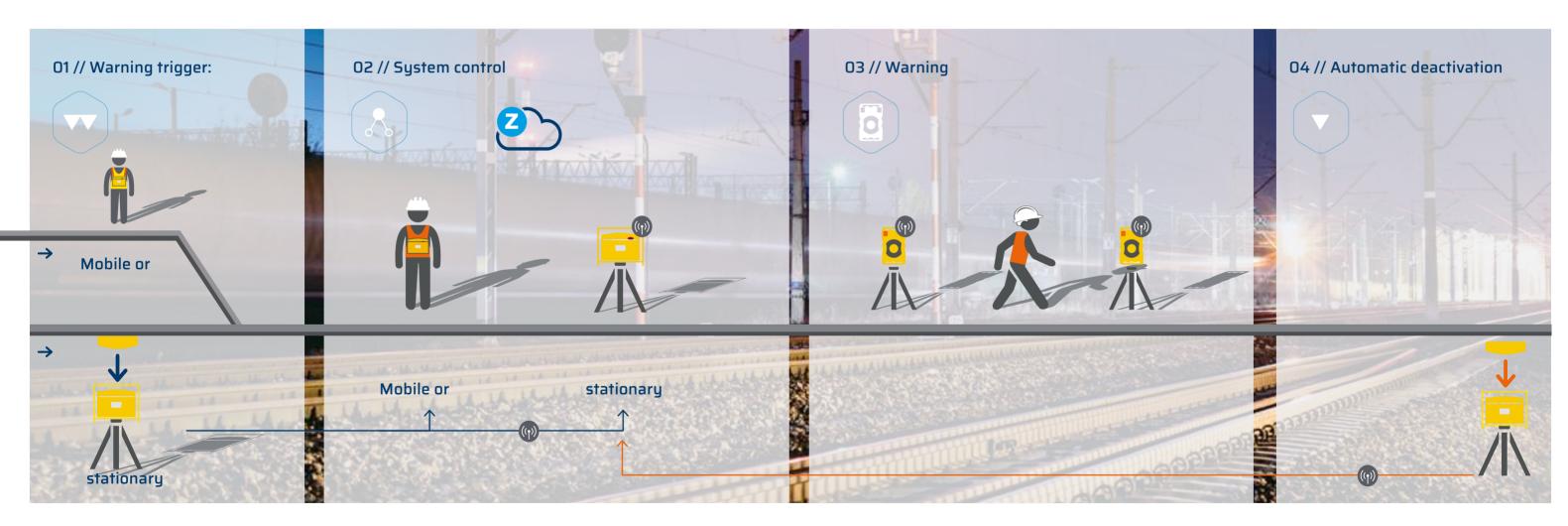


THE ZÖLLNER MRWS SYSTEM

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MRWS - system structure

For many years, the MRWS mobile radio warning system has been used to protect employees in track areas on several thousand worksites. The components in the MRWS family can be combined modularly and flexibly, making it possible to always provide the best solutions for every worksite situation.



The warning can be triggered automatically, and/or it can be triggered manually via a mobile radio transmitter.

The control unit triggers the warning signal issue of the individual warning devices. It can be operated either in stationary or mobile form.

The warning devices issue warnings selectively exactly where work is being performed. When doing so, they automatically adapt the volume of the warning signal to the environmental noise (Autoprowa® effect).

As soon as the rail vehicle has passed the worksite, the warning is cancelled either automatically or manually at the control unit.







From mobile small worksites to extensive maintenance measures, the modular system from ZÖLLNER makes maximum security possible with minimum material expenditure!

Warning trigger

Train detection with the highest level of security: The radio transmitter can be used flexibly, either stationary with technical detection or in mobile form with manual triggering. The radio transmitter can also be configured as an on-switch or an off-switch.





System control

Depending on the worksite configuration, the control unit can be taken along in a harness or used in stationary form. The control unit can be carried in a harness or makes it possible to monitor all components registered in the system in real time.





Warning

Different collective and personal warning devices make it possible to secure all types of worksite.







Ergonomic

tive environments.

A light and compact design guarantees easy handling.

Environmentally friendly

It is also very well-suited to noise-sensi-



Modular

The components of the MRWS can be combined in a very wide range of configurations.



The MRWS was developed pursuant to CENELEC and fulfils the requirements up to SIL4.



User friendly

Simple assembly and activation processes make it easier to commission the devices. Ready indications convey whether the system's status is active at all times.



Supported by experts

We are strong as a team! Experienced technicians from ZÖLLNER are available to assist MRWS customers around the clock.

// **7**

THE ZÖLLNER MRWS SYSTEM



Advantages of the MRWS in detail

Flexible, user friendly, well-designed and equipped with state-ofthe-art wireless technology, the MRWS has many advantages and offers the optimum solution.

// Many years of comprehensive experience for maximum safety

As a SIL4-certified system, the MRWS is "failsafe" and has proven itself in over 250,000 deployments during ten years. Both the option of triggering the Ro3 emergency warning using a button on the control unit or the on ZPW and the automatic starting routine with an integrated plausibility check guarantee safe worksite situations, even in exceptional circumstances.

// Maximum flexibility combined with simple application for high levels of efficiency and profitability

Thanks to its modular construction, the MRWS is ideal for a large number of worksite situations. User friendliness was our main focus during the development process. Examples of this are using the warning device ZPW-12 as the control unit as well and the option of managing up to four train detectors in one transmitter. Thus, many functionalities can be realised with low material expenditure. The low weight of the individual components and optimised, quick commissioning make transport and on-site handling easier. Charge status indicators on all batteries and the option of changing batteries even during ongoing operations facilitate simple charge management. It is also possible to create a direct supply with 230V mains voltage. In these situations as well, the MRWS can be optimally adapted to specific worksite situations.

// Low-noise protection with Autoprowa® effect

All warning devices in the mobile radio warning system are equipped with Autoprowa® effect. The environmental noise is continually measured using microphones that are integrated into the warning device. Warning signals are then issued exactly as loudly as they need to be so employees are sure to perceive them at any time, yet as softly as possible to strain the environment and residents as little as possible. // Ready indicator

The LEDs integrated into the flashing lights (ZPW126 and WGL) indicate the system's operational readiness. That means it is possible to recognise whether a warning device is in operation and protection is thus guaranteed at any time.

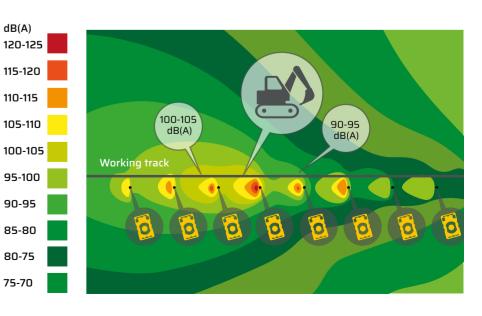
// Highest availability

The radio components have state-of-the-art radio technology and guarantee the greatest range, even on topologically difficult terrain. If there is a loss of radio communication or a fault, the MRWS automatically reverts to warning mode to guarantee the safety of all employees. An "auto recovery" function in the event of loss of radio and direct error indications on system displays can restore protection as quickly as possible, however. Should you require help, our service hotline is available 24 hours a day, seven days a week

Fig. right This graph is based on the following parameters:

Distance of warning device chain to the working track: **6,5** m // Distance between the warning devices: **30** m // Alignment of the individual warning devices in the direction of the working track: **15°** // Noise source: road-rail excavator with vibratory plate: **97dB(A)** // Distance from the nearest ZPW126-10 to the noise source: **ca. 10**m

It can be clearly seen that with the almost seemless Autoprowa® effect, the signal level automatically adjusts to the ambient noise level and is only as high as it needs to be to warn workers safely.



THE ZÖLLNER MRWS SYSTEM

Our products in detail // Warning trigger



ZFS-10 technical details

- » Protection class: IP65
- » Dimensions (W x H x D): 340 x 245 x 105 mm
- » Weight: approx. 2.4 kg
- » Surrounding temperature: -25°C to +55°C
- » DC 24 V voltage supply

Trains in motion are detected either using rail contacts embedded in the track or manually by a safety monitor. In both cases, the radio transmitter ZFS transmits the information on the upcoming train in motion to the worksite, where the warning signal issue is triggered. After the railway vehicle has passed the worksite, the warning is cancelled, and work can continue.

ZÖLLNER radio transmitter ZFS

The ZÖLLNER radio transmitter ZFS can be used both in stationary form for automatic train detection via rail contact (F500 or F300) and in mobile form when carried. It is especially well-suited for use as a hand switch for sighting distances near the train station with many possible trains in motion or quickly moving work. Its automatic person monitoring creates maximum safety. When used in stationary form, the ZFS can function either as an on-switch or an off-switch and manage up to four train detectors.



F500 technical details

- » Protection class: IP68
- » Dimensions: (W x H x D): 270 x 165 x 330 mm
- » Weight: approx. 8.7 kg
- » Surrounding temperature: -25° to +70°C



An even more efficient installation is possible with the magnetic holder specially developed for inductive

in tight spaces.

Thanks to the extremely short installation time of only around 30 seconds, the time spent in the danger zone can be reduced to a minimum.

This significant shortening means a considerable increase in safety for employees on worksites.



F500-SEN with magnetic holder technical details

- » Protection class: IP68
- » Dimensions (W x H x D): 546 x 99 x 203 mm
- » Weight: approx. 7,4 kg
- » Surrounding temperature: -25° to +70°C

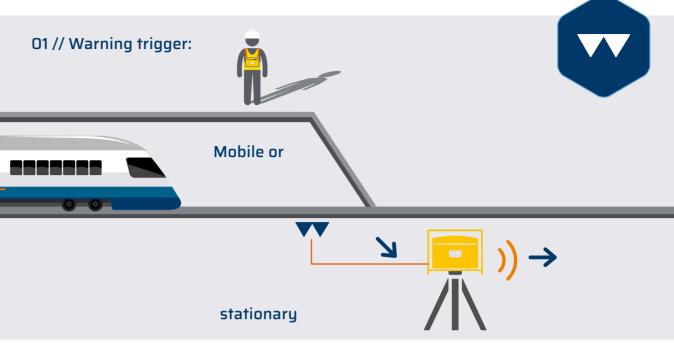




Fig. above The activation point for automatic train detection is composed of the wheel sensor F500-SEN, the connection box F500-AB and the radio transmitter ZFS.

Fig. to the left The train detector F500-SEN can be guickly installed, and the associated F500-AB is ready for operation quickly thanks to its one-touch calibration.



Connection box F500-AB

The connection box F500-AB evaluates the information from the train detector F500-SEN and transfers it to the radio transmitter ZFS. Simple commissioning outside of the danger zone (one-touch calibration) and compact design ensure easy, simply assembly.

F500 AB technical details

- » Protection class: IP65
- » Dimensions (W x H x D): 360 x 250 x 120 mm
- » Weight: approx. 3.0 kg
- » Surrounding temperature: -25°C to +55°C
- » Voltage supply: DC 24 V

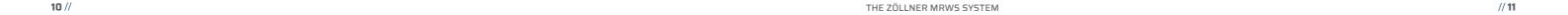




Fig. above There are different options for realising MRWS system control. Whether stationary, mobile, using ZRC or using ZPW, the MRWS's extremely high level of flexibility is impressive in this case

Fig. below The ZRC-10 can function as a control unit in both a mobile and stationary form. During stationary use, both automatic deactivation and manual warning withdrawal are possible.



Our products in detail // System control



ZRC-10 technical details

- » Protection class: IP65
- » Dimensions: (W x H x D) 360 x 250 x 120 mm
- » Weight: approx. 3.0 kg
- » Surrounding temperature: -25°C to +55°C
- » Voltage supply: DC 24 V

The control unit is the heart of the MRWS. Both the ZRC and ZPW can be used as control units. Both components can be operated as both stationary or mobile units.

ZÖLLNER remote control ZRC

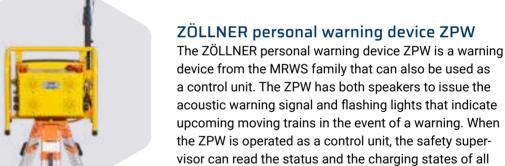
The ZÖLLNER remote control ZRC connects and manages the radio components of the system and thus serves as a control and operating unit for the safety supervisor. The ZRC can be operated either as a mobile unit in a harness (e.g. for short-term or quickly moving worksites) or as a stationary unit (e.g. for longer worksites with automatic deactivation). Regardless of the operating mode, the ZRC makes it possible for the safety supervisor to always have an overview of the operating status and the charging states of the batteries of all components installed in the system. An emergency warning with Ro3 can be triggered at any time using a pushbutton and a subsequent warning with the toggle switch. If desired, the ZRC can be integrated into the ZCloud.

components registered in the system on the display.



ZPW-12 technical details

- » Protection class: IP65
- » Dimensions (W x H x D): 360 x 250 x 120 mm
- » Weight of the ZPW: approx. 4.7 kg
- » Surrounding temperature: -25° to +55°C
- » Voltage supply: DC 24 V
- » Max. sound pressure level of the ZPW acoustic warning devices: 120dB(A)



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Our products in detail // Warning devices





ZPW126-10 technical details

- » Protection class: IP65
- » Dimensions (W x H x D):
- 278 x 435 x 364 mm (without antennae) » Weight: approx. 9.35 kg (without
- batteries), approx. 10.7 kg (with batteries) » Surrounding temperature: -20°C to +55°C
- » Supply voltage: DC 14.4 V

The warning device family from the company ZÖLLNER offers a selection of different components that can be used flexibly and combined with one another. With the Autoprowa® effect, every warning device measures the environmental noise and adapts the volume of the warning signal to it. This guarantees that the warning signal is always a quiet as possible but, at the same time, as loud as necessary. Employees are therefore safely warned without straining the environment and residents unnecessarily.

ZÖLLNER personnel warning device ZPW126-10

The newest member of the MRWS family was developed in accordance with CENELEC and fulfils the requirements of SIL4. Its optics and acoustics are united in a stackable, robust outdoor housing. The device's practical design makes it possible to stack up to 24 ZPW126-10 of them on a euro pallet, which reduces transport expenditure and costs.

The wireless, plug-in batteries make it easy to manage batteries in addition to saving time on the worksite. Of course, the batteries can be changed during ongoing operation.

The continuous Autoprowa® effect makes it possible to adjust the warning signal issue very precisely in a range from a minimum of 97 dB(A) to a maximum of 126 dB(A) and thus adjust it to the environmental noise as well as possible.

State-of-the-art technology facilitates longer revision cycles.



LEDs on every corner of the housing guarantee 360°, all-around perceptibility, and the ready indicators provide information on the operational readiness of the system at all times. The ZPW126-10 can function either as a master or remote. Actuation of the ZPW126-10 in master operation makes it possible to incorporate an unlimited number of warning device groups, each with up to five remote warning devices (see the graphic on the following page).

That guarantees the warning devices in a defined warning area behave in a uniform manner.

The ZPW126-10 can be used as a receiver to actuate a machine warning system via the ERRI interface.

The ZPW126-10 can be hung directly on a machine or an excavator using the magnetic holder. That way, the warning device moves along the worksite together with the loud noise on the machine or excavator.



Fig. Intrinsically safe acoustics and optics in a single housing provide the highest level of safety and guarantee easy handling.



Fig. The ZPW126-10 can also be used as a mobile warning device on track construction machines or can actuate the machine's own warning system using the integrated ERRI interface.



Fig. The compact design of the ZPW126-10 makes it possible to stack up to 24 warning devices on a euro pallet. This enables efficient, economical transport.

Configuration for patrolling

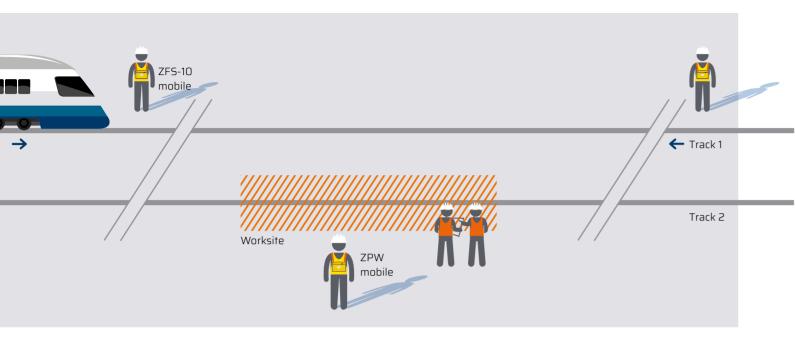


Fig. above With the mobile ZPW and the mobile ZFS transmitters, patrolling, measurements and other minor maintenance work can be optimally protected.

Configuration for a worksite larger than 400 m with automatic warning cancellation



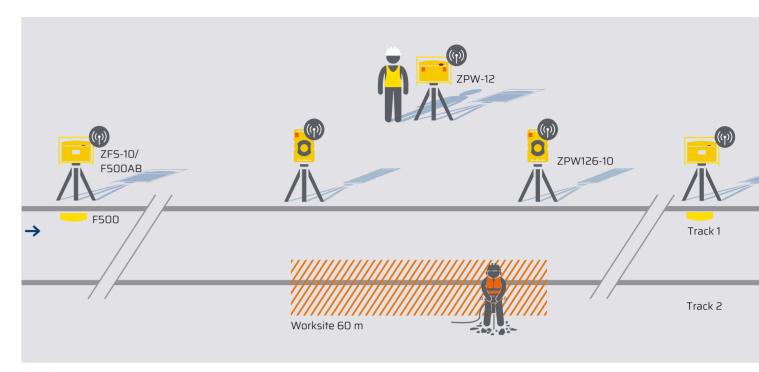
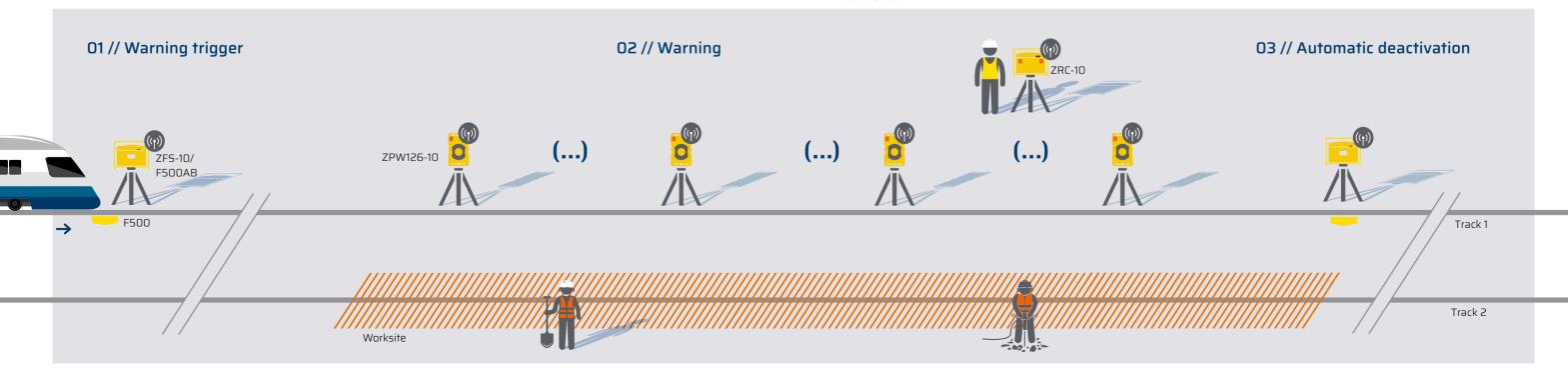


Fig. above For smaller or loud worksites, the ZPW126-10 is used at certain points as a warning device. The warning can be triggered automatically – as depicted – manually or as a combination of both

Fig. below Longer worksites can also be optimally protected with the MRWS. The warning system covers the entire worksite and the warning devices can be positioned where works are being carried out.





Flexible safety along the entire length of the worksite

Fig. below Longer worksites can also be optimally protected with the MRWS. The warning system covers the entire worksite and the warning is always there where works are being carried out.

All-rounder ZPW126-10 - warning device & ERRI interface to the machine's own warning system

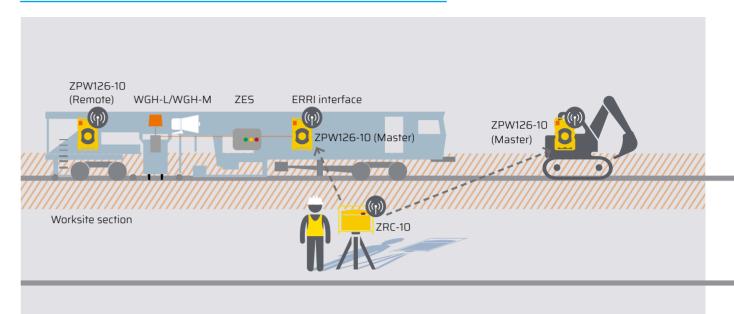
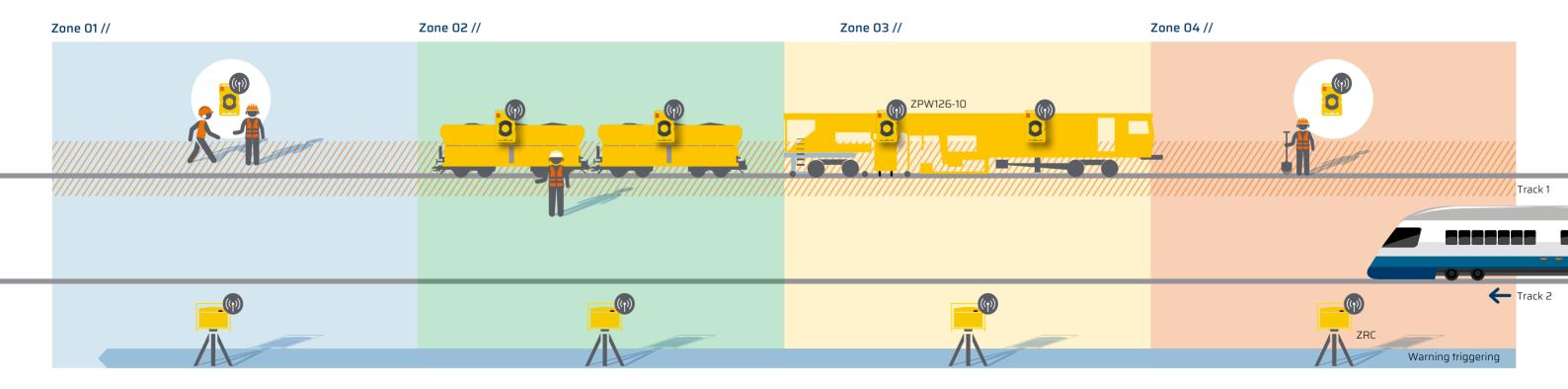


Fig. above The ZPW126-10 can be attached directly to a machine or an excavator using the magnetic holder and function as part of a warning group and/or, as an alternative, control the machine's own warning system via its ERRI interface. The ZPW126-10 Master and Remote on the machine form a warning device group. On the excavator, the ZPW126-10 constitutes its own warning device group.



Permanent Warning Systems

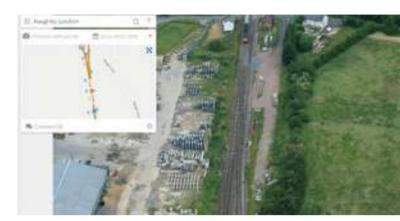


Another innovative method to protect worksites that require regular maintenance access are permanently installed warning systems which are independent from the interlocking. Examples are maintenance-neuralgic and difficult-to-secure track areas such as junctions, tunnels and bridges. Two main variants can be distinguished here:

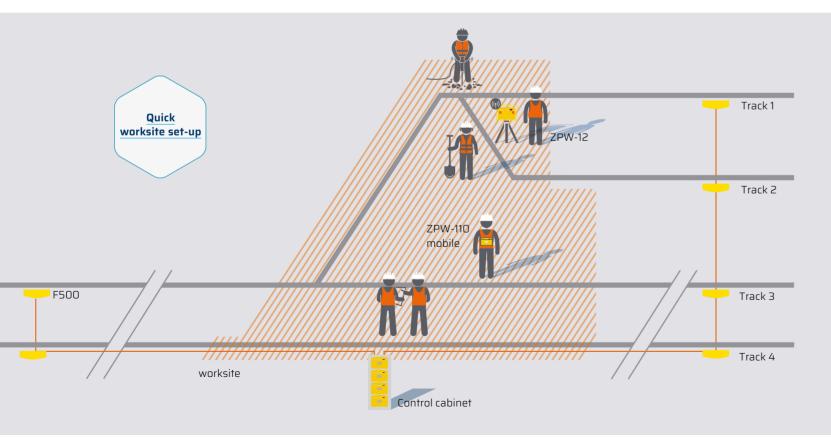
Semi-permanent Installation // Electronic train detectors are installed and are left on track for several weeks or months. Other system componenents, e.g. radio transmitter and warning device will be brought to site and operated on battery power.

Permanent installation // Train detectors are permanently installed and plug-in points are installed in a position of safety either near the train detectors or within the warning area. The version below shows a system where the whole train detection part of the system including the radio transmitter are installed in a cabinet and are permanently powered by mains. To use the system for protection the radio warning devices need to be logged into the system. The setting up time is very low.

The SIL4 failsafe architecture and the high availability of a permanently installed radio warning system lead to both an increase in safety and a reduction in costs compared to conventional protection using lookout and mobile radio warning systems.



Configuration for a permanently installed warning system



Radio connection warning system

Train detection / axle counter

ZÖLLNER Warning system

Power Supply

Terminal Block

Connection F500 train detection

Mains supply

Fig. above Example installation for a permanent warning system // Haughley project

Fig. above Control Cabinet // Project Haughley



ZPW-12 technical details

- » Protection class: IP65
- » Dimensions (W x H x D): 360 x 250 x 120 mm
- » Weight: approx. 4.7 kg
- » Surrounding temperature: -20° to +55°C
- » Voltage supply: DC 24 V
- » Max. sound pressure level of the ZPW acoustic warning devices: 120dB(A)

ZPW: Warning device and control unit in one component

The ZPW can serve as both a warning device and a control unit (see page 13). Integrating both of these functions into one component makes the ZPW especially attractive for very small worksites as well. That way, for example, selected activities can be protected with minimum material expenditure.

The ZPW is also equipped with the Autoprow® effect and adapts the warning signal proportionately to the environmental noise (97-120 dB(A)). The device developed pursuant to CENELEC fulfils the requirements of SIL4 and works "failsafe". Monitored flashing lights indicate upcoming moving trains and are extremely noticeable thanks to LED technology.





Figures above The ZPW can be both carried mobile and used as a stationary unit on a stand.

Configuration for moving worksites

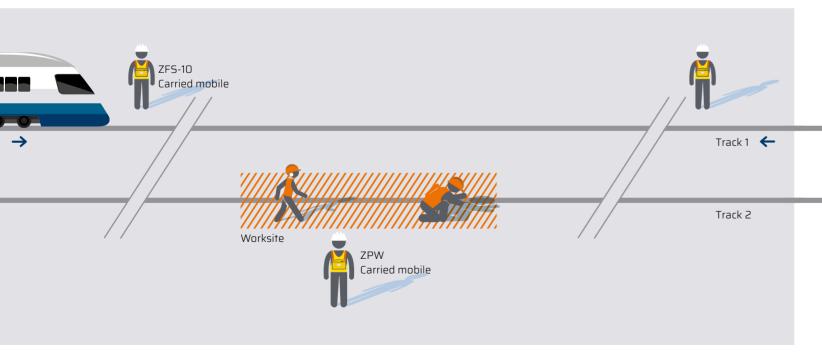


Fig. above The double function of the ZPW as a warning device and a control unit reduces material expenditure to a minimum. In Great Britain, for example, the ZPW is carried mobile on moving worksites.

Configuration for small worksites

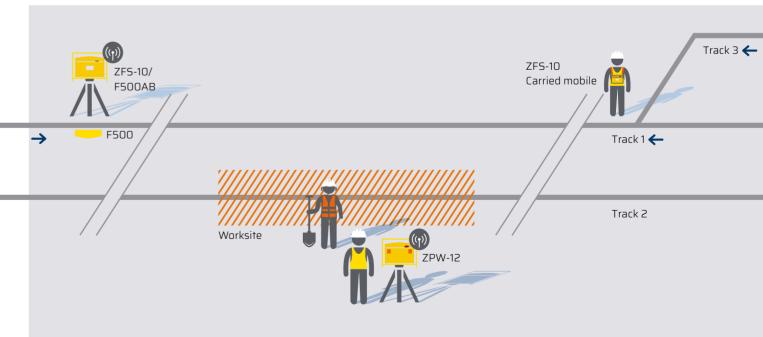


Fig. above Depending on the situation at the activation point, the warning can be triggered either manually using the ZFS or automatically using a train detector.

ZRT-30 - The connection between hardwired warning system and radio warning system



ZRT-30 technical details

- » Protection class: IP65
- » Dimensions: (W x H x D) 360 x 250 x 120 mm
- » Weight: 1.9 kg
- » Surrounding temperature: -25° to +55°C
- » Power supply: DC 24 V

The ZÖLLNER Radio Transceiver ZRT-30 connects our hardwired system with the warning devices of the Mobile Radio Warning System (MRWS) and thus creates further possibilities to protect different worksite situations even more efficiently, with less noise and at lower cost. The ZRT-30 is connected via cable to the already existing machinery warning output of the control unit SSE2 of the

The ZRT-30 is connected via cable to the already existing machinery warning output of the control unit SSE2 of the hardwired system. The power supply can be provided by either from the hardwired system (NG44E) or from external batteries

The ZRT-30 can be used with the existing protective frames and tripods.

The operation is also based on the existing MRWS components - users can operate the new component easily and intuitively without having to adjust.

ZRT-30 as connection between hardwired system and machine warning system

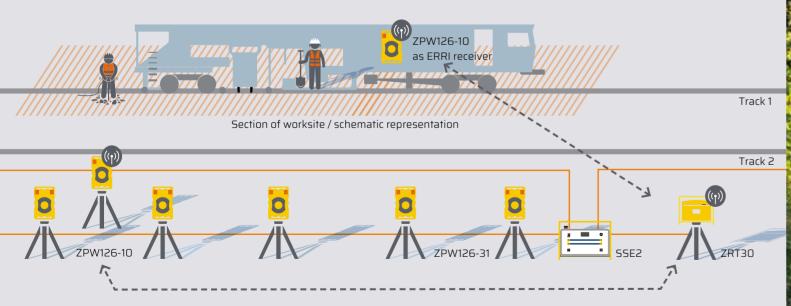


Fig. above Connected to the control unit of the hardwired system, the ZRT-30 can be connected directly to the ZPW126-10 as an ERRI receiver. This means that the machine warning system can also be

controlled and triggered directly via the hardwired system. In particularly noisy areas of the worksite, the chain of warning devices can be extended with the ZPW126-10

Your advantages at a glance

- » New application possibilities for existing components
- » Direct integration into existing systems (via the excavator warning output of the SSE2)
- » SIL 3
- » Mechanically compatible with existing components from the MRWS family
- » Familiar operating elements of the ZÖLLNER MRWS

Possibilities & examples of application Combination of hardwired system and radio warning sys-

tem // The ZRT- 30 acts as a link between the control unit (SSE2) and the warning devices of the mobile radio warning system. For example, the hardwired system can control a chain of warning devices consisting of ZPW126-10 or ZPW-12 as a warning system.

The selective addition to the hardwired warning system // In particularly loud areas of the worksite, the warning device chain can be extended with the ZPW126-10.



Control of a machine warning system // The ZRT-30 enables the transmission of the warning state of a field-side hardwired system (e.g. consisting of a chain of ZPW126-31) to a machine's own warning system. For this purpose, the ZRT-30 controls a ZPW126-10 used as an ERRI receiver on a track-laying machine. The number of controlled ZPW126-10s can be freely selected. If, for example, several track side hardwired warning systems (warning areas) are used for assembly line work, each hardwired system can be equipped with its own ZRT-30.

Fig. below The ZRT-30 is connected by cable to the control unit SSE2 of the hardwired system. In this example, the ZRT-30 controls the machine's own warning sustem.





Additional members of the MRWS family // Personal warning



ZVW technical details

- » Protection class: IP65
- » Dimensions (W x H x D):100 x 228 x 45 mm (without antenna)
- » Weight: approx. 440 g (without battery), approx. 550 g (with battery)
- » Surrounding temperature: -25° to +50°C
- » Voltage supply: DC 7.2 V

For certain works, such as fast working through vegetation, a collective warning is not enough or is very difficult to implement. In order to optimally protect these activities as well, ZÖLLNER offers the systems ZVW and CLARIS, which are based on the well-known components of the MRWS

ZÖLLNER vegetation warning system ZVW

Vegetation work poses particular challenges: all employees work with very loud equipment, wear hearing protection and must keep a safe distance from one another. The ZVW system is used to guarantee that the warning signal safely reaches every employee.

ZVW is a personal warning system in which the warning is integrated into the hearing protection (ZWG - ZÖLL-NER warning device) and LEDs on the visor serve as a reminder of the upcoming train movement. The LEDs use different flashing patterns to indicate status OK, warning or exceptional operation.

Vegetation employees wear the radio receiver in special harnesses or integrated into the appropriate pockets in the carrying harnesses of their work tools.



Fig. below Vegetation employees hear an audible warning and LEDs on the visor draw visually their attention to the upcoming warning.



Example for configuration ZVW

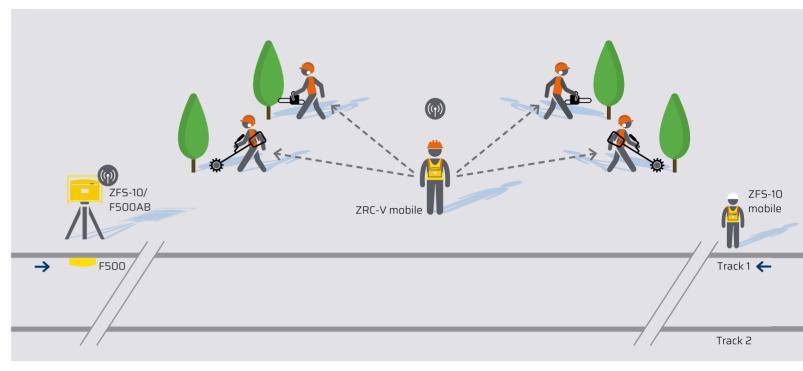


Fig. above Vegetation work protected with ZVW. The train movement information can be transmitted via a mobile or stationary transmitter.

The safety supervisor is informed of all system statuses, such as warning, status "OK",

break from work, etc. via the control unit ZRC-V. Using the ZVW makes it possible to work through vegetation not only considerably more efficiently and economically but also significantly safer for employees.



Fig. left The safety supervisor instructs the vegetation workers on the workplace and the warning system.



WADSON technical details

- » Protection class: IP65
- » Dimensions: (W x H x D) 85 x165 x40 mm (without cable)
- » Weight: approx. 280 g
- » Surrounding temperature: -25° to +50°C
- » Power supply: DC 7,2 V

Miniaturised warning device WADSON

The WADSON (WArning Device Snap ON) warning device is a miniaturized warning device that issues visual and audible warnings. Among other things, it can be operated flexibly as individual warning device. Whether during patrolling or in the cabin of a track laying machine - with the suitable holder, optimum perceptibility can be ensured in any application.

WADSON can be used, for example, as a personal warning device during patrolling, inspection works, installation of fixed barriers and as a stationary warning device in confined spaces such as in the cabin of a track laying machine.

Sample configuration WADSON

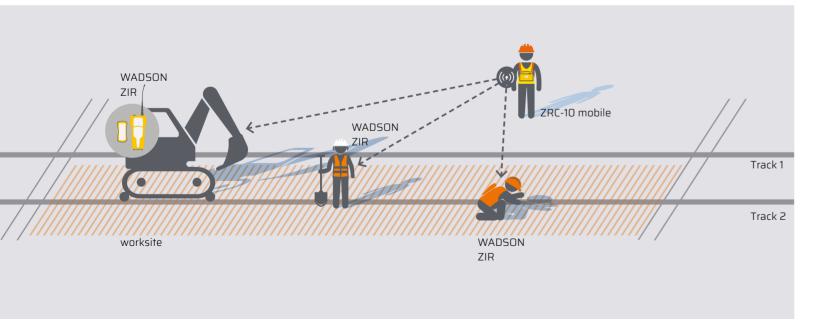


Fig. above Various works can be protected with the WADSON system.







Fig. above Operation as a warning device in



ZIR technical details

- » Protection class: IP65
- » Dimensions: (W x H x D) 100 x 228 x 45 mm (without aerial)
- » Weight: approx. 440 g (without battery), approx. 550g (with battery)
- » Surrounding temperature: -25° to +50°C
- » Power supply: DC 7,2 V





an excavator cabin.



Fig. above Operation as a warning device

during patrolling

The ZIR receiver

The ZIR (ZÖLLNER individual Receiver) serves as a radio receiver for ZWG and WADSON.

The radio receiver can be carried flexible in a bag that can be attached to a harness.





Fig. above The system CLARIS connects protection staff and vegetation workers to another via radiotelephony.



CLARIS technical details

- » Protection class: IP65
- » Dimensions (W \times H \times D):
- 360 x 250 x 120 mm
- » Weight: approx. 4 kg
- » Surrounding temperature: -25° to +60°C
- » Voltage supply: DC 24 V
- » Max. sound pressure level of the ZRC-40: 118dB(A)

Personal warning including voice communication - CLARIS

The system CLARIS was developed to guarantee optimally perceptible warnings in loud environments and enable voice communication for employees. The control unit ZRC-40 communicates with the well-known ZFS MRWS radio transmitters.

Every employee wears a Duplex hearing protection device into which both the warning and the voice communication system are integrated. However, the hearing protection device also enables voice communication with people in the immediate vicinity without them having to be incorporated in the system. The Duplex hearing protection device is connected to a guardian terminal that communicates with all participants registered in the system. That way, all employees can exchange voice information at any time and are still safely warned if a train is going to be moving soon. The warning signal is issued with higher priority than voice communication in this case.



Sample configuration of CLARIS

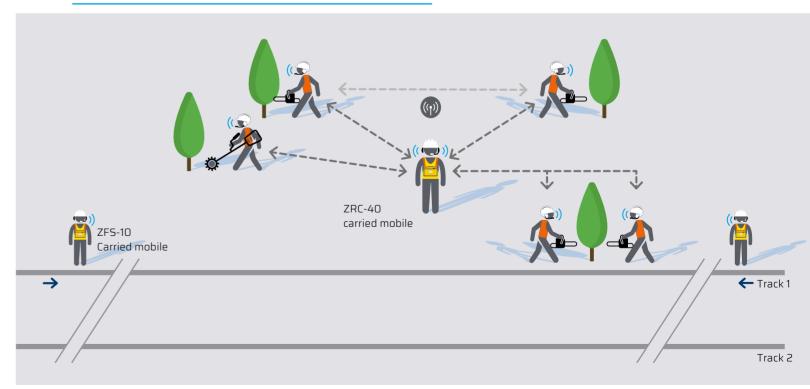


Fig. above The system CLARIS guarantees employees are safely warned when performing very loud work while making voice communication amongst them possible.

Keep an eye on everything digitally with ZCloud

ZCloud // Tracker

Information (e.g. location, device status, battery status) of all active MRWS systems can be queried at all times using the web-based ZCloud. ZCloud uses the device tracker to recognise which components work together in a system and automatically groups them together as an "active system". All components

in the respective stock of devices that are not currently in use or are not assigned to a system are listed separately. All available data are stored in the logbook and can be called up or exported there.

Monitoring device positions

Even when the device is deactivated, the location information is transmitted to ZCloud for up to a week

Information on the current distance between ZFS and the control unit via location information from both components

The lookout can obtain information about their distance from the worksite in the display.

Simple access regulation with optimum user and device management

If a customer decides to use ZCloud, they receive secure access to the cloud. Within this access, each customer manages user authorisations themself and can add new employees at any time.

ZCloud can be operated on various devices (smartphones, tablets or PCs).







Real-time monitoring

Keep an eye on worksites, device data, system statuses and location information in real time and regardless of your location.



Notifications & alarms

Timely notifications and alarms concerning critical device and system states, such as low charge levels.



racking

Keep an overview of system deployment, components used and all other devices all the time and everywhere.



Distance monitoring

Permanent determination of the distance between the activation transmitter and the worksite. The current distance is shown on the activation transmitter's display.



Data analyses

It is possible to evaluate operating times by analysing and exporting stored device data.





Training programmes relevant to practice at our certified Academy

Our ZÖLLNER Academy is a certified educational provider of DB InfraGO AG and offers a large selection of product training programmes. Our experienced trainers support you by providing manufacturer's expertise either in our training rooms or, upon request, on your premises. The programmes focus on practical exercises so every participant learns how to safely handle our products. Of course, system components are always available for this purpose. They can be realistically set up and operated on our practice track, for instance.

Our employees are happy to provide you with competent consulting on the topic of training programmes.

From safety personnel to ATWS plan reviewers: When you participate in our training programme, you will grow from a novice to an expert.

A complete listing of our offerings is available on our website. Contact us if you don't find what you are looking for there. We are happy to design custom training programmes for you.

It's your choice

- » Benefit from the advantages of our training centre in Kiel with training rooms featuring modern equipment and a practice track, or
- » use our service on your premises





431 7027-183

Your contact information // Tel.: +49

training@zoellner.de // zoellner.de

Mobile: +49 171 834 01 20



Our competent service team is available to assist you around the clock

Safety on the tracks and smooth processes on worksites are our top priorities at ZÖLLNER. That is why our service team consisting of experienced technicians can be reached by phone at any time. If needed, our colleagues will also give you support right on your business premises.

24/7 support // Our 24/7 service hotline is available to you around the clock:

Service hotline +49 (0)177-35 71 466







The partner at your side.
We're here for you! Together we guar-

antee secure track worksites.



Developed pursuant to CENELEC

Certified, independent institutions check the development process, which complies with standards



Customer-specific developments

Project-related developments and system modifications



Future-oriented, sustainable design

Products and components with long lifecycles and preventive obsolescence management

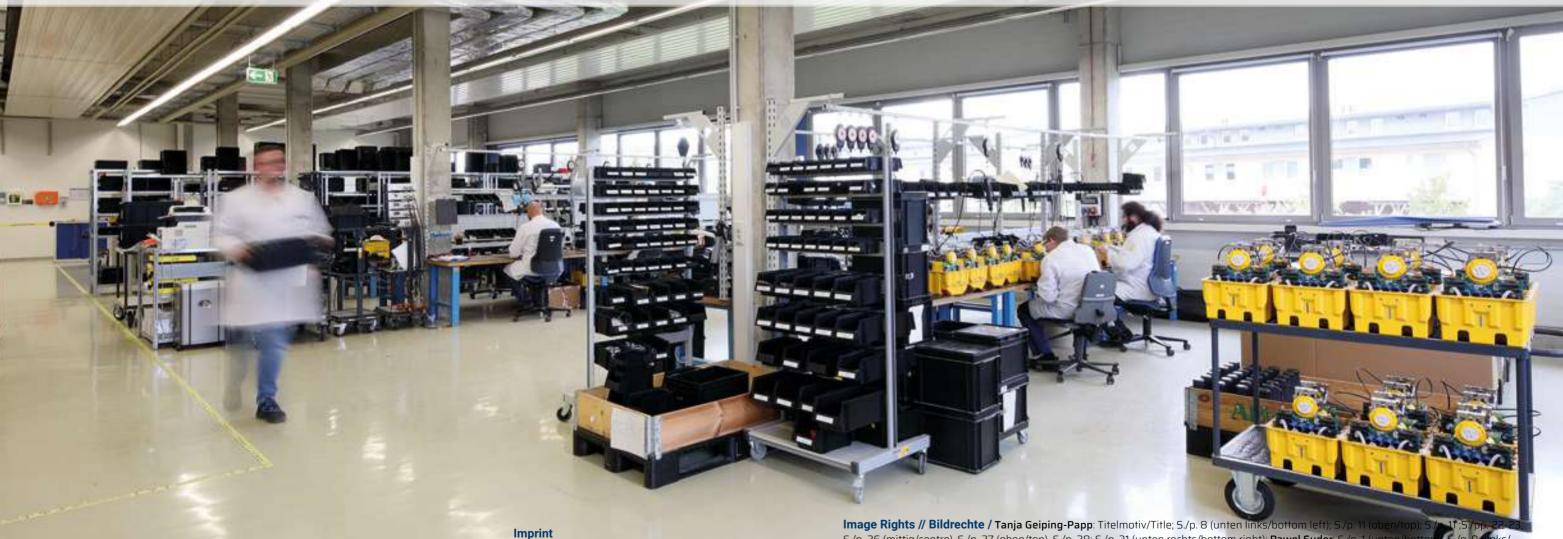


Fig. A glance at our Autoprowa® workshop // Highly-qualified employees and certified processes are important building blocks for our products' reliability.

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