



Wheel Slide Protection Solutions

Less wiring. Less hardware. Ready to use.

**The Selectron WSP solution becomes even more compact with ARiS
- the automated railway integrated system.**

Where installation space plays a crucial role, the ARiS – compact PLC enables the implementation of specific wheel slide protection (WSP) solutions for each bogie. Furthermore, a decentralized design via a node is possible, thereby allowing for a flexible train control and management system (TCMS) architecture.



SELECTRON

Wheel Slide Protection Solutions

One solution. Two platforms. Three possibilities.

Signal acquisition and control should take place near the bogie sensors and brake actuators. Selectron's two Safety WSP function modules handle this task.

With the Selectron WSP solution, you receive a certified anti-slip solution compliant with EN 50128 and EN 50129 on two platforms: the proven Smartio platform and the new, compact ARiS platform.

Both platforms are characterized by their flexible hardware, which is tailored to the respective vehicle configuration. Thanks to their compact design, they reduce the number of interfaces and shorten cable runs.

The new ARiS compact PLC SCPU 20x-TW enables the implementation of highly compact wheel slide protection solutions for the smallest rail vehicles with limited

space. Both platforms also support decentralized architectures via a module and a central Wheel Slide Protection Unit (WPU). The WPU can be implemented using one of the three virtualized PLCs of the SCPU 941-TW or one of the three ARiS compact PLC SCPU 20x-TW units.

Designed for rail networks.



Less wiring

Shorter cable paths and fewer interfaces



Scalable hardware

Use only the functions each vehicle needs



Fast local control

Processing close to sensors and actuators



Flexible integration

For new-build and rail modernization

Integrated Architecture.

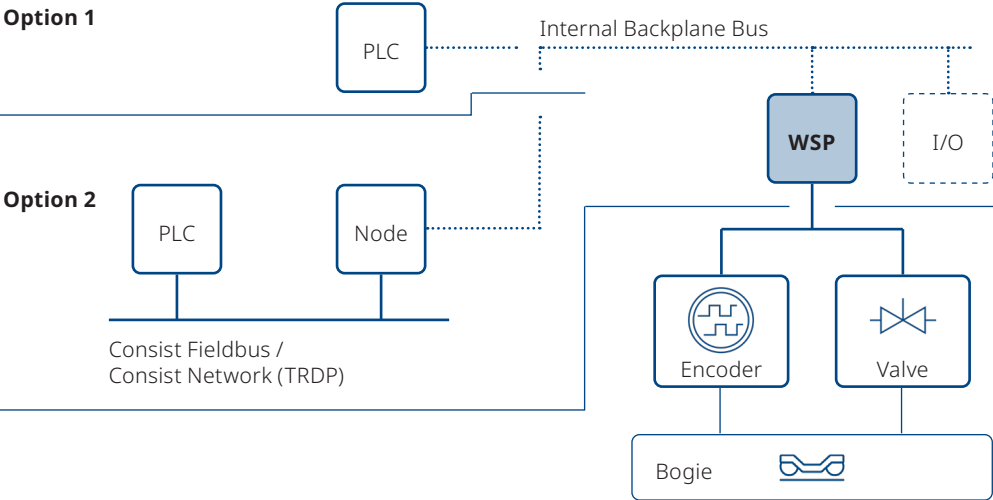
The existing, proven decentralized approach (Option 2) is now supplemented by the new ARiS platform with the more compact Option 1.

The WSP function module can now be connected directly to the SCPU 20x-TW over the internal backplane bus (EBus).

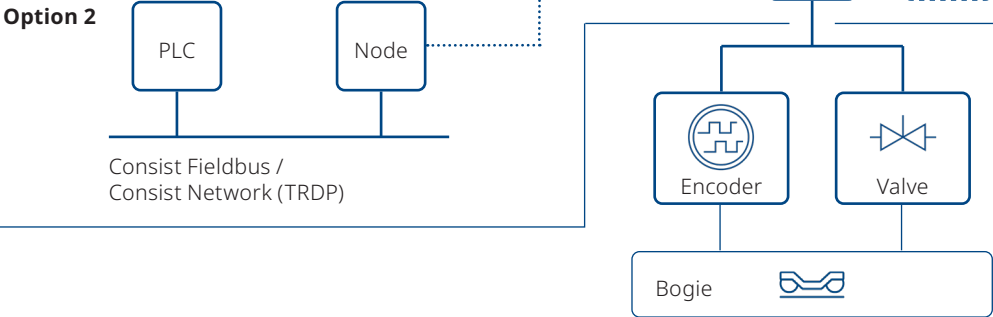
For Option 2, you now have up to four combinations available with the SCPU 941-TW or SCPU 20x-TW and the two node modules, SDDE 201-TW or SDDE 302-TW.

For both options, the PLC serves as WPU running the dedicated IEC application for WSP control.

Option 1



Option 2



SELECTRON

Choose the right wheel slide protection for your train project.

ARiS offers the integrated WSP solution (Option 1) with its compact PLC. This reduces the total number of nodes in the system by one, and thanks to the resulting compact design, the solution can be used where installation space matters.

The proven **Smartio** WSP solution is characterized by its decentralized architecture (Option 2). With the SCPU 941-TW, which enables the parallel operation of up to three virtualized PLCs, the central Wheel Slide Protection Unit (WPU) can run on one of the three virtualized PLCs. This flexibly expands the overall TCMS architecture.

When used in combination with the ARiS node module, you have the flexibility to choose between one of the three compatible PLCs from ARiS or the efficient computing SCPU 941-TW, which supports up to three virtualized PLCs.

Selectron WSP Portfolio

Controller Units

Run as Wheel Slide Protection Unit



SCPU 20x-TW

available in three variants

Ask for:
ARiS - Compact PLC



SCPU 941-TW

Ask for:
System MAS 94x - Efficient Computing

Function modules

SIL Wheel Slide Protection



SWSP 201-TF

4444003



SWSP 301-TF

44740001

Safety & Cybersecurity



SIL 2

Safety certified according to EN 50129:2018/AC:2019 SIL 2.



Defense in depth

Protection against accidental and intentional data manipulation.



Qualified platform

Integrated toolchain, operating system and safety lifecycle support reduce engineering and approval effort.

Engineering & lifecycle support



Architecture & integration

Support for subsystem architecture, interface design and TCMS integration.



Application engineering

Open programming, integrated toolchain and libraries for efficient development.



Lifecycle & retrofit

Long-term availability, retrofit support and global service for rail projects.

Built for your project success



Qualified & reliable

Developed for rail applications with long-term availability.



Shorter time to market

Pre-qualified platform and reusable software components reduce project time.



Flexible & scalable

From compact stand-alone control to distributed subsystem architectures.



Investment security

Support throughout the entire product and vehicle lifecycle.

Next steps | Find the right Wheel Slide Protection solutions for your rail vehicle project.



Get in touch

Expert advice and tailored support for your projects.



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