

PRESS RELEASE

Schmersal presents prototype for wireless data transmission in heavy industry

Innovative cloud study for large-scale conveyor system monitoring

Wuppertal, 13 October 2020. In cooperation with aconno GmbH, the Schmersal Group has developed prototypes of an Industry 4.0 switch capable of wireless data transmission over distances of several kilometres for use with extended conveyor systems. The integrated wireless transmitter in the HDS series switches transmits status data for each individual switchgear unit via a common wireless mesh network to a cloud system. The prototypes are currently undergoing practical tests.

The new HDS switchgear series has been developed specifically to meet the requirements of the bulky goods industry. The switchgear unites a range of functions into a single platform, making it suitable for an extremely wide range of applications. Typical application areas include emergency-stop shutdown, belt misalignment monitoring in the transport of bulky materials, end position monitoring in steel making and level monitoring in material silos.

The emergency-stop and belt misalignment switches in the HDS series now accommodate wireless transmitters made by aconno, allowing diagnostic information to be transmitted from the switches more quickly and with much greater efficiency. The switches have been integrated into a mesh network to enable status data to be transmitted from one node to the next over distances of up to 250 metres. This in turn facilitates communication over several kilometres and will greatly simplify switchgear monitoring in large-scale conveyor systems in particular.

All switching operations can be monitored in real time and online via a web browser on a PC or smartphone. The data from the cloud can be transmitted directly to the control centre or a smartphone in the hands of maintenance and service technicians on site using the web interface or APP.

Malfunctions in conveyor systems are recorded in the cloud immediately and actuated switchgear units can be uniquely assigned, despite their series connection, allowing for rapid troubleshooting by maintenance personnel. The development makes lengthy searches for faults in conveyor system command and operating chains a thing of the past, minimising the disruption caused by production outages and raising machine availability.

Furthermore, depending on the distance and the environmental conditions of larger conveyor systems, the investment costs for this Bluetooth solution with a wireless mesh network are only a fraction of the system costs of conventional fieldbus systems with decentralised structures.

The German start-up aconno develops customer-specific hardware, Bluetooth and sensor solutions, including Bluetooth chips and a development platform for individual Industry 4.0 applications. The Schmersal Group owns 26% of aconno GmbH.

Photo in print quality for download:

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www.schmersal.net/Bilddata/So_posi/Schief/hds/fotos/katalog/1000xkhds_f02.jpg

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Image caption:

The new Heavy Duty Switch (HDS) from Schmersal: numerous functions have been integrated into a single platform, making the HDS suitable for a wide range of applications.

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About the Schmersal Group

The Schmersal Group is an international market and expertise leader in the challenging field of machine safety. With the world's most comprehensive range of safety switchgear products, the Schmersal Group develops safety systems and solutions for special requirements in a variety of user industries. Schmersal's tec.nicum business division offers a comprehensive service portfolio to complement the range of solutions offered by Schmersal.

Founded in 1945, the company is represented by seven manufacturing sites on three continents with its own companies and sales partners in more than 60 countries. The Schmersal Group employs some 1,850 people worldwide and generated a group turnover of around €236 million in 2019.

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