



# Safety to cloud as an Industry 4.0 compliant solution



*Data is the new gold in Industry 4.0. Machines, tools and workpieces will become cyber-physical systems which collect and exchange data. The result is a whole new quality of production data which enables decentralised production control in real-time. But the digital transformation poses new challenges for the safety technology. Schmersal Group now presents an innovative safety solution which is suitable for worldwide applications. The company, one of the global market leaders in safety technology, has recently expanded its business in Turkey and Eastern Europe.*

The Schmersal Group is showcasing its first 'Safety to Cloud' solution. All Schmersal's solenoid interlocks and safety sensors fitted with an SD interface and a few safety light barriers can transfer data to any cloud via the PSC1 safety controller or an SD gateway in conjunction with an Edge gateway. The SD (Serial Diagnostics)

interface is used to transfer non-secure data from safety sensors and solenoid interlocks in safe series connection. The Smart Safety Solution allows all cyclical SD interface sensor data to be transferred to the cloud. Linking these cyclic SD data within the cloud gives the user comprehensive diagnostics options, including switching cycles, safety status information, tolerance warnings, distance warnings, and much more. The Edge gateway forwards the data in a common format, which is independent of any system and a standardised protocol for M2M communication.

### Location-independent control of production processes

Diagnostic information can be visualised on screen and accessed via mobile devices such as smartphones or tablets. This enables control of production processes which is independent of location. The visualisation of data via dashboards can be implemented, for example, by using a Microsoft tool, which offers a range of useful functionality for data display in the form of tables, diagrams and graphics, etc. "This means we can offer our customers a solution which is completely manufacturer and system-neutral and they can choose which cloud they wish to use," explains Siegfried Rüttger, Project Manager Industry 4.0 at the Schmersal Group.

### Smart safety solution enables predictive maintenance

"The Smart Safety Solution enables the consistent communication of diagnostic information from the sensor to the cloud, thus smoothing the way for predictive maintenance," explains Siegfried Rüttger. For example, users can display how often a machine starts up and the number of operating hours, which can be used to calculate predicted wear on components to enable early exchange. Thereby machine downtimes will be reduced to a minimum and avoids unnecessary costs. Another major advantage is that safety light barriers can also be integrated into the system. If, for example, contamination occurs on the sensors of the light grids



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### Successful in Eastern Europe

As of January 2017, Schmersal and the Turkish Entek Otomasyon Urunleri San. ve Tic A.S. have established a sales partnership for the marketing of Schmersal safety products and systems in Turkey. The cooperation with Entek gives Schmersal's Turkish customers easier access to the complete range of safety products. Also, thanks to Entek's sales network with seven offices across Turkey – Istanbul (headquarter), Gebze, Bursa, Ankara, Izmir, Eskisehir, Adana – Schmersal can offer a higher level of support close to where the customers' business is located. In early 2018, Schmersal gained a new partner especially for the distribution of optoelectronic products in Turkey, such as safety light grids and light curtains: İLKE Otomasyon is a young and dynamic company operating in automation with headquarters based in Şişli-Istanbul and further offices in Beyoğlu-Istanbul, Gebze and Çerkezköy. Recently, Schmersal has also expanded its business activities to the Republic of Azerbaijan. Here, Schmersal sells its products through its new sales partner, the company BS-Avtomatika LLC, based in Baku, the country's capital.



and the signal is weakened as a result, a warning message can be transmitted so that corrective measures can be taken early before the light grid switches off safely.

### Company with a global reach

The Schmersal Group provides customers with systems and solutions for functional machine safety. The group with headquarters based in Germany has one of the most comprehensive range of safety technology products and services in the world and is among the international market leaders. The extensive range of more than 25,000 products includes safety switches and sensors, safety controllers, solenoid interlocks, emergency stop switches, optoelectronic safety devices such as safety light curtains, lift switchgear and safety components for the heavy industry – to name just a few. Through tec.nicum, its global service network, Schmersal also offers its customers a complete range of safety services covering training, consultancy services, technical planning / project management and installation.

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