

PRESS RELEASE

Versatile and now also explosion-safe

New heavy-duty switches for potentially explosive applications

Wuppertal, 23 August 2021. The Schmersal Group have expanded their existing range of switches for heavy industry to include explosion-proof variants that are suitable for use in areas at risk of explosion. The pull-wire emergency switches in the EX-I-ZQ900 and EX-I-RS655 series as well as the belt misalignment switches in the EX-I-BS655 and EX-T. 454 series can be used in dusty environments in Zone 21 in ignition protection class Ex tb 'Protection by enclosure' or in gas atmospheres in Zone 1 in ignition protection class Ex ib 'Intrinsic safety'.

The new versions expand the possible range of applications for these switches:

The variants certified for Zone 1 have been designed for applications in which hazardous gases could occur, such as in the chemicals and petrochemical industry as well as in refineries, landfill sites and recycling plants.

Switches that are certified for Zone 21 are suitable for areas outside of dust-enclosing containers, such as near to filling and removal points, conveyor belts or HGV dumping points, such as those found in recycling plants, gravel and cement works, thermal power plants and in the metalworking industry.

Pull-wire emergency switches for safe and reliable shutdown

The EX-I-ZQ900 pull-wire emergency switch with single-sided action is used on machines and systems in areas at risk of explosion, where there might be the need to trigger the emergency stop command at any point along the route of the wire. With a wire length of up to 75 m, it offers numerous contact combinations for a safe and reliable shutdown as well as simple, quick diagnosis.

For greater distances, there is the EX-I-RS655 pull-wire emergency switch with two-sided action. The main characteristic is a significantly reduced installation cost, made possible by the wire length of up to 2x 100 m as well as by the central connection terminal. The central connection terminal enables quick and easy wiring. The EX-I-RS655 with integrated DuplineSafe interface for safe series connection, including diagnostics, is available as an option.

Belt misalignment monitoring

Belt misalignment switches in the EX-T.454 and EX-I-BS655 series, made of grey cast iron, monitor the straight alignment of conveyor systems and are arranged in pairs on both sides of the belt, close to the drive pulleys and idlers.

Uneven loads can cause position deviations, which in extreme cases can cause damage and material spillage. A staggered signal for position monitoring enables prompt belt correction with the pre-warning signal, while a stop signal will cause the conveyor system to be shut down.

The EX-I-BS655 series is based on the multifunctional HDS product platform. With a basic switch and a range of actuating elements as well as different roller diameters and adjustable switching angles, it can be flexibly adapted to the conveyor system in question. Connection to the pre-assembled connection terminal is extremely simple.

Both the EX-T.454 and the EX-I-BS655 are available with the optional Dupline fieldbus interface, which offers greater diagnostic convenience with reduced wiring effort.

The Ex switchgear is constructed in accordance with the requirements of the ATEX Directive 2014/34/EU. With IECEx approval, the switchgear also meets international explosion protection requirements.

Photo in print quality for download:

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Image caption:

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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 more than 1850 people worldwide.

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