# Turning workplaces into safer places.

With systems and solutions from Schmersal.





# Safety systems and solutions from a single source

Industry 4.0 places new demands on the design of production systems and production processes – and also machinery safety. The Schmersal Group supports you in the introduction of next generation digital technologies with automation and safety concepts. We offer you complete solutions from a single source, developing individual safety architectures with components, control systems and software. These architectures are tailored to your application and facilitate integrated communication of diagnostic information from the component to the Cloud.

At Schmersal, you can configure your customised safety solution based on the building block principle, from the individual component to the full service package with turnkey delivery of complex safety systems. With its extensive range of modular services, comprising training courses, consultation, technical planning and execution, our business area, tec.nicum,

#### Consultancy

Our tec.nicum experts provide you with advice in all matters relating to safety – from the current standards situation to the selection of suitable safety equipment.

#### **Risk assessment**

Based on requirement, tec.nicum offers safetyrelated evaluation of individual machines, provides up-to-date advice during risk assessment or carries out the complete assessment, including documentation.

#### Concept

We manage planning, design and programming of safety-related solutions for you up to installation of safety products and safety systems.





contributes decisively towards this. Depending on requirement, you can order individual service blocks – be it manufacturer-neutral consultation, retrofitting of individual machines, the design of application-specific safety solutions or complete project management up to the installation of individual items of protective equipment.



#### **Components**

Our extensive range of safety switches forms the basis for the development of individually-adapted safety systems and solutions.

#### Signal evaluation

For safe and reliable signal evaluation, we offer you solutions adapted optimally to the complexity of your machines and plant systems – from cost-efficient safety relay modules to programmable safety controllers.

#### Training courses

Our tec.nicum academy offers you a comprehensive range of seminars and training in all matters relating to machine and plant safety.





# Safety on all levels

Data is the new gold in Industry 4.0. Components and tools become cyber-physical systems that collect and exchange data. This is the prerequisite for machines being able to interact with each other and becoming self-controlling production units. Accordingly, safety systems from Schmersal are flexible and have the capacity for communication: The scope ranges from small machines that feature just one safety door with emergency stop function, to multi-part production systems for which networked safety sub-systems have to be configured, up to complex systems that require integrated communication to the Cloud. Our service division, tec.nicum, provides you with advice and develops the most suitable solution for your area of application.



## Components

With over 25,000 products, Schmersal offers the most comprehensive assortment of safety switches and sensors in the world. Many of these components have been specially developed for particular applications: such as hygienic switches, switchgear for explosion protection or sensors for automation technology.



## Controllers

Depending on the complexity and number of safety circuits, Schmersal provides solutions for reliable signal analysis based on safety control modules and safety controllers with an array of visualisation and diagnostic possibilities. The product family of PSC safety controllers offers a universal communication interface for all field bus systems

SAFE RELAY COMPONENTS AND SMAL

common in the market. The PSC safety controllers make it possible to program individual protection systems as well as create complex, multi-part systems with networked safety subsystems. Individual production cells can communicate with each other in this way.



## **Systems**

Data from the safety controllers are already available at the higher levels via standard bus systems. Schmersal has set itself the aim of enhancing its range of next generation systems and solutions and significantly simplifying communication from the control level to higher-level systems – up to the Cloud. Our tec.nicum provides you with advice on which systems and solutions are best suited for your application.

SAFETY

# tec.nicum: Machine safety from A to Z

Thanks to the new technical developments in terms of Industry 4.0, there is a rising demand for holistic safety-related system-solutions tailored to the individual requirements of the respective application.

The Schmersal Group therefore offers comprehensive consultation services through its business division, tec.nicum, in order to support manufacturers – even as early as the planning phase - in the design of individually adapted safety equipment. The experts from tec.nicum then oversee the whole process up to turnkey delivery of the safety-related solution upon successful integration. This development process encompasses – often from the outset – risk analyses along with safety-related appraisal of existing machines and plant systems and does not end with user-specific programming of safety controllers.

Our experts supply you with answers to all of your questions – from A to Z (anything from analysis to certification), anywhere around the world and with completely neutral advice independent of the manufacturer.

As a provider of systems and solutions for machine safety, Schmersal is therefore able to supply everything from a single source: hardware and software, expertise and consultation.





# Safety services based on the building block principle

The range of services offered by tec.nicum is based on four pillars:

- Transfer of knowledge at the academy
- Consultation
- Design engineering of safety solutions
- Practical implementation

Each of these four service components can be ordered individually according to requirement.



# The Schmersal Group

In the demanding field of machine safety, the owner-managed Schmersal Group is one of the international market leaders. The company, which was founded in 1945, has a workforce of about 2000 people and seven manufacturing sites on three continents along with its own companies and sales partners in more than 60 nations.

Customers of the Schmersal Group include global players from the area of mechanical engineering and plant manufacturing as well as operators of machinery. They profit from the company's extensive expertise as a provider of systems and solutions for machine safety. Furthermore, Schmersal specialises in various areas including foodstuff production, the packaging industry, machine tool industry, lift switchgear, heavy industry and the automotive industry.

A major contribution to the systems and solutions offered by the Schmersal Group is made by tec.nicum with its comprehensive range of services: certified Functional Safety Engineers advise machinery manufacturers and machinery operators in all aspects relating to machinery and occupational safety – and do so with product and manufacturer neutrality. Furthermore, they plan and realise complex solutions for safety around the world in close collaboration with the clients.

## Safety Products



- Safety switches and sensors, solenoid interlocks
- Safety controllers and safety relay modules, safety bus systems
- Optoelectronic and tactile safety devices
- Automation technology: position switches, proximity switches

## Safety Systems



- Complete solutions for safeguarding hazard areas
- Individual parametrisation and programming of safety controllers
- Tailor-made safety technology be it for individual machines or a complex production line
- Industry-specific safety solutions

## **Safety Services**



- tec.nicum academy Seminars and training
- tec.nicum consulting Consultancy services
- tec.nicum engineering Design and technical planning
- tec.nicum integration –
  Execution and installation

The details and data referred to have been carefully checked. Subject to technical amendments and errors.

# www.schmersal.com





