

Safety in system: Protection for man and machine.

Innovations 2012/2013

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SCHMERSAL

Safe solutions for your industry

The Schmersal system

Smooth, safe, flexible

- Individually scalable safety solutions for different machine sizes
- Smooth, fail-safe installation and wiring of the safety switchgear through AS-Interface
- Comfortable configuration of the safety solution through the "ASIMON" Drag & Drop software
- Complete diagnostic of the entire safety circuit and all connected safety switchgears by the control system
- High operational safety because of the individually configurable safety-monitoring modules
- The safety functions can be smoothly changed or extended later on
- Complete solutions including all accessories



More information can be found in the brochure
"SCHMERSAL System Solutions - AS-Interface Safety at Work"

Solenoid interlock AZM300

One for all mounting situations

- Symmetrical mounting for right- and left-hinged doors
- Can be used as end stop
- 3 actuating directions
- Switchable latching force (25 N / 50 N)
- PL e / SIL 3
- More than 30,000 different codings
- Serial diagnostic
- Actuator or solenoid interlock monitoring
- Power to lock or power to unlock
- Protection class IP69K



More detailed information can be found in the brochure
"More than just a solenoid interlock - AZM300"

Products

Safety sensor RSS 36 AS - Switch distance 10 mm, protection class IP69K



Code number: C-84RSS3

- Electronic safety sensor
- Repeated universal or individual coding
- Enhanced protection against tampering through RFID technology
- High tolerance to horizontal and vertical misalignment with pre-indication in hysteresis area
- Optionally with integrated magnetic latching
- Suitable for applications
 - up to PL e / category 4 to EN ISO 13849-1
 - and SIL 3 to IEC 61508
- Protection class IP69K



Safety sensor EX-BNS 40S - Explosion-proof for ATEX Zone 2 and 22, protection class IP69K



- Coded magnetic safety sensor for use in gas and dust explosion-endangered areas
- Category 3GD, ATEX Zone 2 and 22
- Suitable for food processing industry
- Stainless steel enclosure
- Connecting cable suitable for the food-processing industry
- Concealed mounting possible
- Long life
- No mechanical wear
- Insensitive to soiling
- Insensitive to transverse misalignment
- Protection class IP69K



Safety sensor BNS 36-2750 - Increased switching distance 10 mm



- Coded magnetic safety sensor
- Increased switching distances - s_{a0} : 10mm, s_{a1} : 20mm
- Tolerates axial and height misalignment
- Safety contacts NC/NO or NC/NC
- Optional signalling contact
- Connector plug M8
- LED switching condition indication

PROTECT SELECT - The flexible compact safety controller in 52 mm enclosure



Code number: PROTECT SELECT

- Replaces up to 8 safety relays
 - up to PL e / Category 4 to EN ISO 13849-1
 - and SIL 3 to IEC 61508
- Optimal adaptation to the application by individual parameter setting
- No programming skills required
- Safe inputs for the redundant inquiry of all commonly available safety switchgears, e.g. emergency stop switches, sensors, solenoid interlocks, light grids and curtains, safety mats, etc.
- Safe analogous inputs for integrating critical process parameters (temperature, pressure, flow rate, etc.)
- Safe relay and semi-conductor outputs with STOP 0/1 function with programmable timer
- Automatic or manual reset function
- Optionally with short-circuit recognition

Safety light curtain SLC 440 - Optimised customer and industry solution



- Industry solution for the paper-processing industry
- Type 4 safety light curtain with a 10 ms reaction time
- Suitable for SIL 3 applications to IEC 61508
- Protection field height 410 mm, resolution 14 mm
- The length of the protection field is equal to the sensor length (no dead spaces)
- Integrated status display
- Functional optimisation automatic or reset mode

Protective enclosure SG5 / SG6 - Robust protective enclosure for safety light grids and light curtains



- Protection for safety light curtains / light grids and deflecting mirror, also suitable for rough ambient conditions
- Protection field height up to 1200 and 1770 mm
- Sensor with arbitrary height adjustment
- Comfortable adjustment of the vertical axis
- Mounting plate with slotted holes for smooth set-up
- Compensation of uneven floors by means of adjusting screws
- Protection against ambient influences: operational protective disk SGS (self-adhering) available
- Accessory deflecting mirror ULS-SG-1000 available

Safety foot switch T2FH 232 - 2-pedal



- Use as enabling switch
- Combination of safety and process function enabled
- Different contact variants
- Positive break NC contact
- Robust metal enclosure
- Protection class IP65



Code number: C-02TFH2

Pull-wire switch TQ 700 S - Signal generator for electrical machinery and gate/door drives



- Signal generator for instance for gate and door drives
- Wire pull detection
- Pull wire with ball available as accessory
- Different contact variants
- Positive break NC contact
- Protection class IP67



Code number: C-08TQ70

Position switch ZAF - With spring rod lever



- Can be deflected in any direction
- Can be used in case of changed actuation conditions
- Suitable for low actuating speeds
- For position switches of the series 235, 236 and 256
- Protection class IP67

AZ/AZM 200-B30-...-SZ – Actuator for hinged guard with integrated lockout tag



- Possibility to install up to 3 locks
- Smooth and intuitive operation
- Various handles available, no supplementary door handles required
- Optionally with emergency exit
- With integrated door detection sensor
- No risk of injury from protruding actuator

Clean room certificate for the control devices and indicator lights of the N series



- The command devices and indicator lights as well as the stainless steel enclosures of the N series are suitable for use in clean rooms of the highest cleanliness class for room air particle counts, air cleanliness class 1, to ISO 14644-1 .
- In addition to that, a recommendation for use in hygienic production environments up to GMP class C to EG-GMP-Guideline, Appendix 1, is issued.
- The GMP rules place high requirements on the production environment of sterile products.



Code number: "N" Programm



Literature

New brochures



- More than just a solenoid interlock - AZM300



Code number: 103002024

Best of MRL-News



The Schmersal Group regularly publishes MRL-NEWS to keep machinery and plant builders up-to-date on the latest news, discussions and current issues regarding functional machinery safety.

The most important articles from these publications have been published in a book called "Best of MRL-News" and completed by up-to-date themes. You will be provided with information on the current legal matters in machinery safety as well as on the latest innovations regarding the technical development of safety components.

This 220-page illustrated book can be ordered **for free** from Schmersal.



Code number: 101215470

Safe solutions for your industry

Safety Services

Professional competence for the practice

Machinery safety is a challenging and multi-layered theme, which issues major challenges both to machine builders and safety engineers. After all, during the selection of safety systems, many directives and standards must be observed and especially the new regulations, such as:

- EN ISO 13849-1
- EN 62061
- IEC 61508

These are complex regulations, which require sufficient time and expertise to be adequately understood.

Safety Consulting: Adequate consultancy from the start

An increasing number of companies are searching for assistance and consultancy for the implementation of these regulations. With the help of experts, very specific issues can be addressed faster and safer. That is why the Schmersal Group has pooled its expertise for this kind of tasks and entrusted the "Safety Consulting" to highly qualified specialists.

The service portfolio from the Safety Consulting is clearly structured.

The Consultants can be consulted by the customers, amongst others, on the following problems:

- Application consultancy
- Run-on time measurement
- Risk analysis to EN ISO 12100:2010
- Conformity assessment procedure

Of course, the Consultants will be pleased to answer questions beyond these subject areas. To that effect, they have direct access to the knowledge of the different specialist departments from the Schmersal Group, from product management to the R&D department and the standardisation, committee and association work groups.



Assistance from experts

Some 30 experienced collaborators from the Schmersal Group from 18 countries were qualified as machine safety experts. They closely collaborate with the local sales engineers and the product management.

Comprehensive know how

When our Safety Consultants are configuring standard-compliant safety systems, they can rely on comprehensive and highly practice-oriented know how. The participation of the Schmersal Group in various standardisation panels provides for the necessary theoretical background, which is required for the selection or configuration of standard-compliant guard systems.

Application Centre: Service provision for the safety of man and machine

To offer our customers an even more intensive consultancy, we have established the Application Centre. In addition to the sales engineers and the technical sales, this is the field of operation of the application engineers.

For complex issues: the CE Network

In Germany the Safety Consultants closely collaborate with our CE Network, they can rely on comprehensive expert knowledge for special issues. This network of competent engineering companies, which was initiated by the Schmersal Group, provides mechanical engineers with competent advice on complex themes regarding machine safety. The CE Network has a specialist for any extraordinary problem and provides an answer to any question.

More information: www.ce-netzwerk.com



The Schmersal Group

For many years the privately owned Schmersal Group has been developing and manufacturing products to enhance occupational safety. What started out with the development and manufacture of a very wide variety of mechanical and non-contact switchgear has now become the world's largest range of safety systems and solutions for the protection of man and machine. Over 1,200 employees in more than 50 countries around the world are developing safety technology solutions in close cooperation with our customers, thus contributing to a safer world.

Motivated by the vision of a safe working environment, the Schmersal Group's engineers are constantly working on the development of new devices and systems for every imaginable application and requirement of the different industries. New safety concepts require new solutions and it is necessary to integrate new detection principles and to discover new paths for the transmission and evaluation of the information provided by these principles. Furthermore, the set of ever more complex standards, regulations and directives relating to machinery safety also requires a change in thinking from the manufacturers and users of machines.

These are the challenges which the Schmersal Group, in partnership with machinery manufacturers, is tackling and will continue to tackle in the future.

Product ranges	Industries	Services	Competences
 <p>Safe switching and monitoring</p> <ul style="list-style-type: none"> Guard door monitoring safety switches Command devices with safety function Tactile safety devices Optoelectronic safety devices <p>Safe signal processing</p> <ul style="list-style-type: none"> Safety monitoring modules Safety controllers Safety bus systems <p>Automation</p> <ul style="list-style-type: none"> Position detection Command and signalling devices 	 <ul style="list-style-type: none"> Elevators and escalators Packaging Food Machine tools Heavy industry 	 <ul style="list-style-type: none"> Application advice CE conformity assessment Risk assessment in accordance with the Machinery Directive Stop time measurements Training courses 	 <ul style="list-style-type: none"> Machine safety Automation Explosion protection Hygienic design

All data mentioned in this flyer have been carefully checked. Technical modifications and errors excepted.

www.schmersal.com

