



 Safety  Automation  Engineering

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Images are not true to scale.

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MINOS Series - Safety Relay



These ultra-compact safety relays with a width of just 6.2 mm / 6.8 mm have only one goal:

A modular, cost optimizing safety solution, which is optimized with just the essentials:

- High diagnosis via status und error LED's
- High modularity & cost efficiency
- Variants for different applications
- For safety applications
PL e / Cat. 4 / SIL 3

⇒ MINOS SD: with safe relay contact

⇒ MINOS SL: with safe semiconductor output



Ultra Compact Safety Relay

MINOS SD



- 6 -

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AWARD
2020
FINALIST



MINOS SD - Safety Relay



Ultra-compact safety relay (6.8 mm) for safe, galvanic and distinct switching. This includes high performance while providing minimal space requirements.

Compatible with common sensors for monitoring light curtains, safety doors or classic Emergency-Stop switches:

- 1 safe relay contact, 1 auxiliary output
- Max. switching capacity 250 V AC/DC with 6 A
- Input and start functions configurable via switch
- For safety devices up to PL e / Cat. 4 / SIL 3

⇒ E-Stop Relay : MINOS SD1E

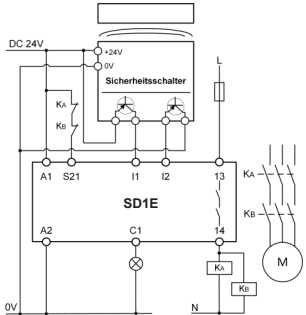
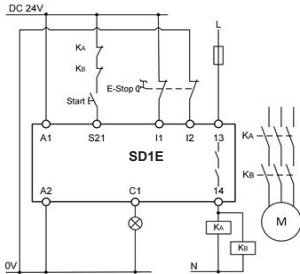
⇒ Safe Coupling Relay: MINOS SD1K



MINOS SD

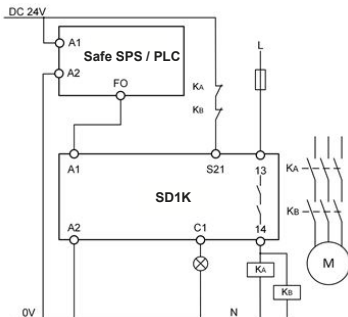
SD1E for two-channel emergency monitoring with short circuit monitoring and monitored manual start up to PL e / SIL 3.

SD1E for two-channel monitoring of a non-contact safety switch with short circuit monitoring and automatic start up to PL e / Cat. 4 / SIL 3.



MINOS SD - Application Example SD1K

SD1K as contact reinforcement
and test pulse filtering for a safe
PLC output up to PL e / Cat. 4 /
SIL 3.



Ultra-compact Relay with PNP-Output

MINOS SL



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MINOS SL - Relay with PNP-Output



Ultra compact safety relay with safe semiconductors for applications with high-switching cycles. For example manual assembly lines as well as classic emergency-stop light grid- and safety door applications:

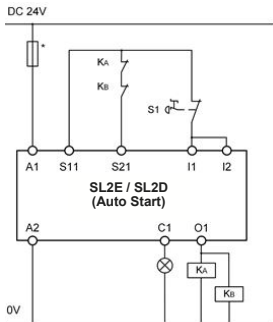
- Wear-free, safe semiconductor output
- Diagnosis by 3 status - and 1 error LED
- Variants for numerous applications
- For safety applications up to PL e / Cat. 4 / SIL 3
- Cost efficient through mere electronic solution
- 1 auxiliary output



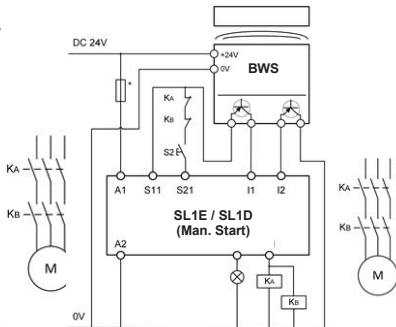
Application Examples

MINOS SL

Single-channel emergency-stop monitoring with automatic start
SL2E: up to PL c / SIL 1
SL2D: up to c / SIL 1

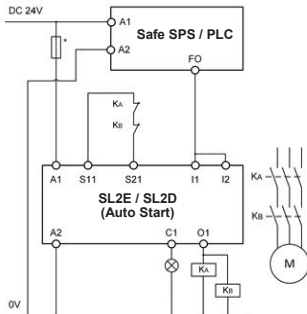


Dual-channel monitoring of a seemingly contact-free protection guard
SL1E: up to PL e / SIL 3
SL1D: up to PL d / SIL 2



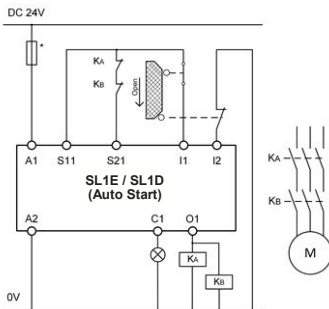
MINOS SL - Application Example SL

Contact amplifier and test-pulse filtering for a safe PLC-output with automatic start
SL2E: up to PL e / SIL 3
SL2D: up to PL d / SIL 2



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Dual-channel safety guard monitoring with automatic start
SL1E: up to PL e / SIL 3
SL1D: up to PL d / SIL 2



Mini Safety Timer PLC

SCB



SCB - the Mini Safety Timer PLC



Configure different combinations of time delayed and non-time delayed contacts with one device:

- Variants: 0.1 s up to 99 h (s, min)
- Resolution 0.1 s, min, h
- Variants with up to 3 semiconductors and/or 2 relay contacts
- Time parameterization and high diagnostic capability with a push/rotary button and a built in display
- ON and OFF Delay possible
- For safety applications up to PL e / Cat. 4 / SIL 3
- Certified according to EN 50156-1
EN 746-2, IEC 61511-1



Application Examples

SCB

- Monitors flushing duration of boilers. The SCB ensures that the burner can't be used for a set period of time
- Bypass for a brief debouncing of pressure switches when a system is being booted up
- Filtering of brief fluctuations in pressure, volume steam, temperature and of similar nature

For more information please follow the QR-Code.

SCB - Replaces old pneumatic Timer



Replacement of outdated pneumatic time relays.

- In case of a retro-fit as well as the construction of burner systems the SCB ensures current state of art technology and conformity of pertinent standardization
- Now with 230 V supply in combination with the new ZPower power supply (see page 56)



Safety PLC with Modbus Diagnosis Interface TALOS Modbus





The combination of safety functions of individual safety switches in just one device allows a flexible and cost-optimizing alternative.

- 14 safe inputs, 3 outputs
- 6 auxiliary outputs

Now a communication between other modbus-compatible devices like HMI is possible:

- Monitoring of in- and outputs
- Transmitting of errors

With Modbus RTU!

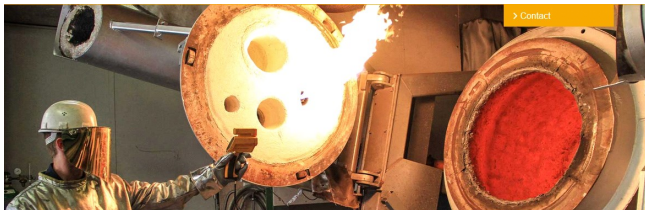


Product Safety
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Safety

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ID: 0805000300

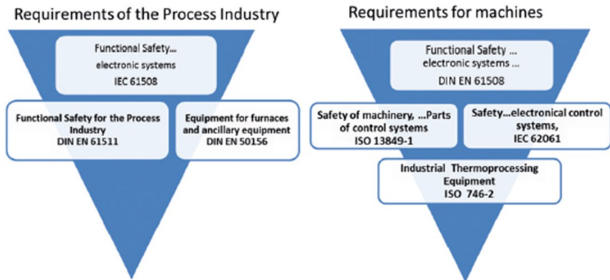
Safe Firing

Process technology



- Safety Relay; 3 NC/1 NO - **SR3D**
- Safety Relay with NC/NO inputs - **SR3AD**
- Safe Coupling Relay / Extension Module - **SK3D**
- Mini safety timer; 99 s, 99 min, 99 h - **SCB**
- Safe time control 990 s, 990 min, 99 h - **TALOS**
- Ultra compact Safety Relay - **MINOS SD**
- Ultra compact Safety Relay - **MINOS SL**

Relevant Standards - for Process Applications



Type-approved and TÜV certified product for the process industry as well as machine engineering.

Your advantage

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ZANDER AACHEN

Safety Relay

SR - Series



EN ISO 13849-1



IEC 62061





With the safety relays of the SR series we offer a modular series which provides protection of humans and machines alike:

- Single- or dual channel operation
- Automatic- or manual start
- For safety applications up to PL e / Cat. 4 / SIL 3
- 2-7 safe relay contacts
- Status LEDs
- Available with
 - Fixed screw terminals
 - Plug-in screw terminals
 - Push-in twin spring connectors



Safety Relay

Timer SR4C / 2-hand S2HC



SR4C, S2HC - Safety Timer



Safety Timer SR4C, AC/DC 24V

4 safe contacts:

- 2 time-delayed / 2 non-time-delayed
- 1 time-delayed / 3 non-time-delayed
- 3 time-delayed / 1 non-time-delayed

2-hand Relay S2HC

- AC/DC 24 V / AC 115 V / AC 230 V
- Additionally meets qualifications of ISO 13851
- Protection of stamps and presses

Terminal variants:

Fixed or plug-in screw terminals
or push-in twin spring connector



Safe Timer

SR4C 0-3 sec



SR4C 0-3 sec - Safe Timer



Brand new - SR4C with short-times:

- Adjustable times with Poti between 0 and 3 seconds

For adjusting short times, for example 0.5 sec!

All variants like the standard SR4C (comparison to page 25)

Additionally new:

- Individual fixed-times
 - between 0-1 sec, solution 0.1
 - between 0-30 sec, solution 0.5



Safety Relay according to Elevator standard EN 81-20/50

SR3E



SR3E - Safety Relay EN 81-20/50



The safety relay SR3E meets the requirements of the new standard EN81-50:2020 and EN81-50:2020. Ideal for freight and passenger elevators:

- Supply: DC 24 V
- 3 safe relay contacts and 1 auxiliary contact
- Single- or dual channel operation
- Automatic or monitored manual start
- Just 22,5 mm width
- Certified up to PL e / Cat. 4 / SIL 3
- 3 status LEDs



Antivalent Safety Relay (NC/NO)

SR3A/SR3AD



- 30 -



EN ISO 13849-1



IEC 62061
IEC 61511
IEC 61508



EN 746 - 2
EN 50156 - 1

Nur SR3AD

SR3A/SR3AD - Antivalent Safety Relay



SR3A/SR3AD was specifically developed for safe monitoring of inexpensive, tried and tested sensors with NC/NO contact combination (for example reed-contacts):

- 3 safety contacts (NO) and 1 auxiliary (NC)
- SR3AD is additionally type tested for the process industry according to EN 746-2, EN 50156-1, IEC 61511-1
- monitored manual start, automatic start
- 3 status LEDs
- For safety applications up to PL e / Cat. 4 / SIL 3



Safety Coupling Relay

SD1K/SK3D/SR7D



SD1K/SK3D/SR7D - Safe Coupling Relay



Safety coupling relays are used for coupling of safety related signals, such as output signals of a safe control system to the periphery for instance.

Besides the galvanically isolated contact extension and contact amplifier, coupling relays are also able to filter test pulses, such as safety controls for instance.

SD1K: 1 safety contact, 1 auxiliary contact

SK3D: 3 safety contacts, 1 auxiliary contact

SR7D: 7 safety contacts, 4 auxiliary contacts,
2 semiconductor contacts



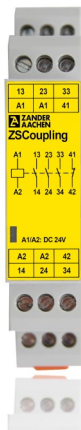
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UL: SK3D and SR7D

Coupling Relay cost-efficient

SK5C, ZSCoupling, SK3C



EN ISO 13849-1



IEC 62061

IEC 61511

IEC 61508



SK5C:

- Our new cost-efficient coupling relays /extension modules SK5C, SK3C
- 3-5 safe relay contacts

ZSCoupling:

- Forcibly guided relay contacts according to EN 61810-3
- 3 NO / 1NC-contacts for maximum flexibility
- High switching performance of 8 A / 250 VAC
- Compatible with safety applications up to PL c / SIL 1
- LED-display of the switching status



Stainless Steel RFID Safety Switch

ZCode-LRE



IP67

IP69K



RFID

ZCode-LRE - Stainl. Steel RFID Safety Switch



The new tamper-proof stainless steel safety switches are specially designed for the food- and beverage industry as well as for the pharmaceutical industry, petrochemical industry and packaging plants.

- High specified housings (316) with high surface smoothness with minimal gaps and corners
- Max. tamper safety per ISO 14119, design type 4, high coding
- Can be connected in series
- IP67/69K, up to +105° degrees surrounding temperature



RFID Safety Switch

ZCode-PR/-LR/-JR/-KR



RFID

ZCode-PR/-LR/-JR/-KR- RFID Safety Switch



The ZCode-PR, -LR, -JR und -KR RFID Safety Switches are distinguished by their high-specific, molded plastic case:

- Max. tamper safety according to ISO 14119
- Can be connected in series
- IP67/69K, up to +80° degrees surrounding temperature
- PL e according to EN ISO 13849-1
- TÜV Rhld. and UL certified (only ZCode-PR/-LR)

Available versions:

- Master- or Unicode
- Various housing designs
- Connection with M12 connection or 5 m cable
- Individually pre-assembled upon request



Safe & Coded Stainless Steel Sensors

TCE/CCE/CCEF/MCF/MC/MZE



IP67

IP69K



EN ISO 13849-1



ZCode - Safe & Coded Stainl. Steel Switches



The RFID safety sensors are completely dust- and waterproof. Equipped with stainless steel housing they are especially opted for the food- and process industry:

- Highly specified housings (316) with high surface smoothness with minimal gaps and corners
- Series connection possible
- IP67/69K, up to +105° degrees
- PL e according to EN ISO 13849-1
- CIP & SIP cleaning
- ISO 14119

Available versions:

- ZCode-MZ(E): process interlock
- ZCode-TCE/CCE/CCEF/MCF/MC:
Contactless switches



Safety Rope Switches

ZL-Series



ZL-Serie - Safety Rope Switches



For protection of extended plants and machines (e.g. conveyor belts):

- E-Stop Button can be installed additionally
- Up to 100 m rope length
- Certified according to IEC EC 60947
ISO 13850, ISO 13849-1
- Wide range of auxiliary material
(also available in stainless steel)



Available versions:

- ZLM up to 50 m rope span
- ZLS up to 80 m rope span
- ZLSE, ZLMS stainless steel variants
up to 100 m rope span



Emergency-Stop Switches

ZStop



ZStop - Emergency Stop Switches



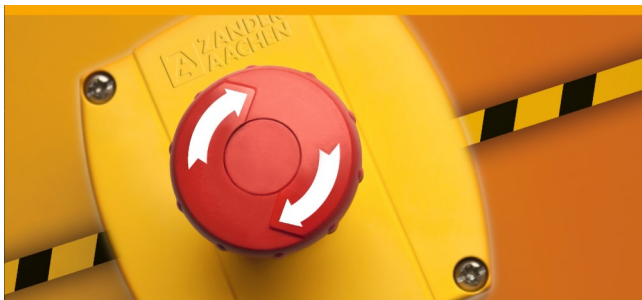
ZStop are Emergency Stop Switches mounted on machines or sections of plant conveyors.

- In combination with any dual-channel safety relays or safety monitoring controllers, these switches can be used as emergency stop devices and monitored up to PLe / category 4 to EN ISO 13849-1
- The emergency-stop switches are ideal for the process– and food industry due to IP69K
- 4 different variations in plastic– and stainless steel housing available



Cooming Soon

SAFETY

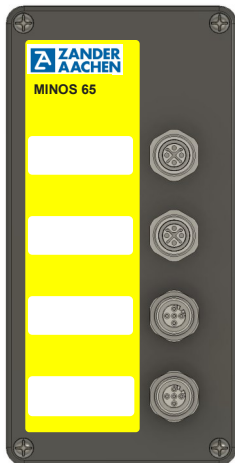


COMING
SOON



Safety Relay

MINOS 65



Coming Soon

IP65

MINOS 65 - Safety Relay

Safety Relay with the protection class IP65 for application outside of a control cabinet.

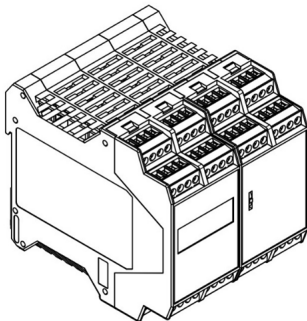
Application for example:

- Plants in the logistics sectors, which require great distances of sensory to logic and must be bridged back to the actuators
- Mobile applications such as mobile lifting platforms, which are enabled to harsh surrounding conditions.

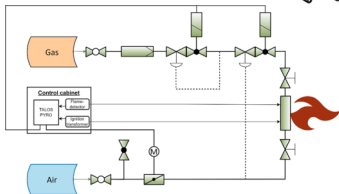
Safety Relays with IP65 protection class allows a safe monitoring directly at the site.

Safe Burn Controller

TALOS PYRO



Coming Soon



EN13577 - 2
EN 13577 - 4
EN 746 - 2
EN 746 - 11
EN 298



IEC 62061
IEC 61511
IEC 61508

TALOS PYRO - Safe Burn Controller

Function:

A safe burner controller for a controlled start as well as shutting off a burner:

- Voltage: 230V AC
- 9 (safe)+3 digital auxiliary inputs (24V DC)
- 1 safe digital output (230V AC)
- 5 (safe)+8 relays-auxiliary-outputs (potential-free contacts)
- Integrated ionization input for flame recognition and monitoring
- Status– and system monitoring through a display, NFC and Modbus RTU
- Configurable– and parameterizable developments, timer, and inputs
- Complies with all new standardizations

Compact Coupling Relay

ZCoupling





Compact coupling relay with two change over contacts for galvanically isolated signals, contact reinforcement and signal conditioning.

- Two change over contacts each up to 8 A, 250 V AC
- Compact housing - 17.5 mm width
- Signalizing of the switching state via front-LED
- 35 mm din rail (EN 60715 TH35)

ZRectifier



ZRectifier - Rectifier Module



The ZRectifier is composed of high quality sections in an extremely compact design for the 35 mm-DIN rail and is used for rectification of voltages of up to AC 250 V.

- Extremely compact design
- Replaces terminal strip
- Closed module with touch- and dust protection

Power Supply Unit

ZPower





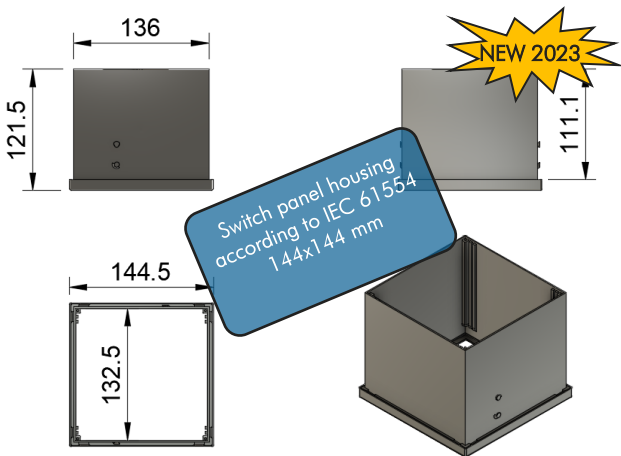
The compact ZPower for a stable power supply.

- Can be installed onto a DIN-rail
- Compact design
- Galvanically separated SELV/PELV/ES1 auxiliary voltage
- Power supply 1-Phase, 24 V, 3.8 A, 90 W
- Electronically protected against zero load, over load and short circuit
- Can supply any type of load (inductive and capacitive).

It can be used for power supplying our safe mini-timer SCB, for instance.

3D-Printing

Custom Housing



Custom Housing - 3D-Printing



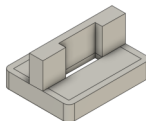
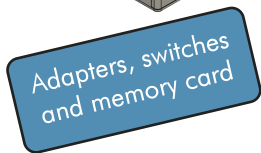
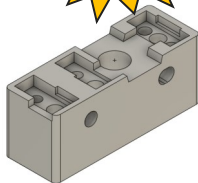
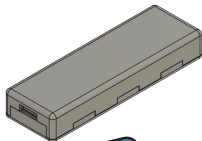
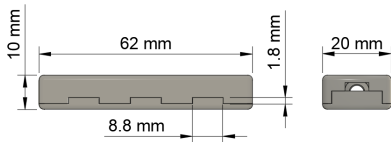
With our growing field in 3D printing, we develop and manufacture innovative and individual solutions.

- FDM-based printing process
- Customized, individual housings
- Housings based on DIN panel instrument housings
- Housings for electronic products
- EMC protection and high temperature resistance

With our 3D printing experts, we are continuously developing new solutions for both our own products and customer-specific requests.

Experience the future of 3D printing - contact us now for your individual offer!

3D-Printing Custom Solutions





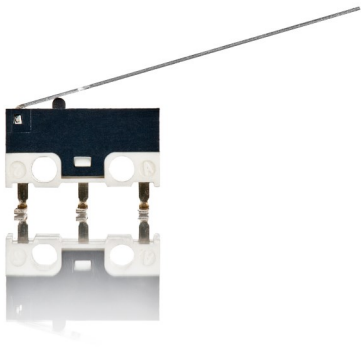
We are using 3D printing not only for the production of our products' housing, but it is an integral part of our entire production process and products.

- Operational for trial and tested products as well as new developments
- Functional and practical custom solutions
- Developing and producing a programming-adapter
- Developing and realisation of a memory disc

Electronics and mechanics components are developed and realised together. We'll gladly support you with your custom solutions as well.

Precise Switching

Microswitch



Microswitch - Precise Switching



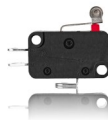
ZANDER Microswitches are often used, where machine positions must be identified which require high switching capabilities.

Typical applications are position sensors, limit switches, cam switches, door contact switches etc.



The types are differentiated in terms of:

- Geometries
- Actuator
- Plug
- Actuating forces
- IP-protection classes



World of Automation

ZANDER High-Speed-PLC



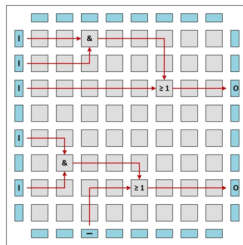


Field Programmable Gate Array

- Programming in hardware
- > 200.000 logic gate

The benefits

- Cycle time- and jitter free
- No sequenced processing
- 100% reproducible switching points for different machine-speeds
- 100% parallel processing
- Repeatedly programmable



High-Speed-PLC

ZX09 / ZX09A





Function

- Micro PLC for small to medium-sized plants
- Desirable amount of configurable timers
- Easy to program with EX_PRESS 5

Variants

- ZX09: 10 digital inputs, 4 digital outputs
- ZX09A: additionally 1 analog input
1x RS485 interface, 1 SSI interface

Vorteile

- Cost efficient compatible high-speed cycle time
- Reaction time: **< 3 μ s digital inputs**
< 5 μ s analog inputs
- Can be integrated into existing networks;
programmable in the network

High-Speed Analog Input-PLC ZX09D / ZX09E



ZanderLink



Function

- Fast acquisition of analog data
- 2 digital inputs, 4 digital outputs
- Easy to program with EX_PRESS 5

Variants

- ZX09D: 4 digital + 2 inputs (0..10 V)
- ZX09E: 4 digital + 2 analog outputs (4..20 mA)

Advantages

- Cost efficient analog High-Speed Solutions without cycle time. With SSI, RS-485 and Zander-Link High-Speed Network
- Reaction time: **< 3 μ s digital input**
< 5 μ s analog input

High-Speed-PLC ZX20 Product Group





Function

- Micro-PLC for small-medium applications
- Easy to program with EX_PRESS 5
- Max. processing time: 1 μ s

Variants

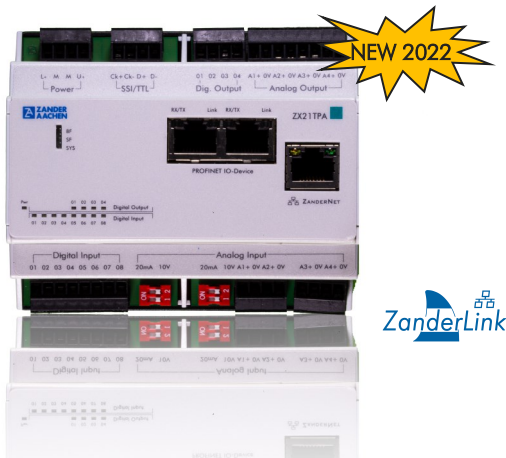
- ZX20T: 20 digital inputs, 16 digital outputs
- ZX21TP: higher chip-capacity
- ZX21TC: 2 additional in/out EtherCAT connection

Advantages

- Cost efficient high-speed solution with no cycle time ($< 9 \mu$ s)
- Intergradeable in already existing networks
- Programmable within one network

Highspeed PLC with Analog Signals

ZX21TPA / ZX21TCA





Function

- Compact PLC for small-medium sized applications
- Easy to program with EX_PRESS 5
- Processing time: $< 20 \text{ ns}$

Variants

- 8 digital inputs, 4 digital outputs, 2+2 analog inputs (V/mA), 4 analog outputs (0-10 V), ZanderLink-interface
- ZX21TP: 2 additional PROFINET-connection
- ZX21TC: 2 additional In/Out EtherCAT connection

Benefits

- Multifunctional networkable High-Speed solution, without cycle time and minimal reaction time ($< 10 \mu\text{s}$) for digital and analog signals
- Integrateable in already existing networks

Compact Highspeed Mini PLC ZX08DIO / ZX06AIO



Supported by:



Federal Ministry
for Economic Affairs
and Climate Action

on the basis of a decision
by the German Bundestag



Function

- Small-module PLC for small-medium plants
- Any amount of configurable timers
- Easy to program with EX_PRESS 6

Variants

- ZX08DIO: 8 digital in– and outputs, connectable with ZanderLink-interface
- ZX06AIO: 6 analog inputs (0-10 V / 4-20 mA), 4 analog outputs(0-10 V), connectable with ZanderLink-interface

Benefits

- Cost efficient connectable High-Speed solutions without cycle time!
- Reaction time: < 3 μ s digital signals
< 10 μ s analog signals

The High-Speed Network
ZanderLink





ZanderLink

- Connects up to three cycle-free controllers of the model series ZX09 in an ultra-fast network
- Analog and digital sensor signals processes and connects at high speeds
- Guaranteed cycle time of the network under $10\ \mu\text{s}$
- Maximum jitter between controllers 100 ns
- Easy configuration with predefined function blocks
- New 2022: Digital and analog I/O modules

The Programming System

EX_PRESS





Programming ZX-Controllers is easy and comfortable with the help of the software EX_PRESS for windows.

- **Function**

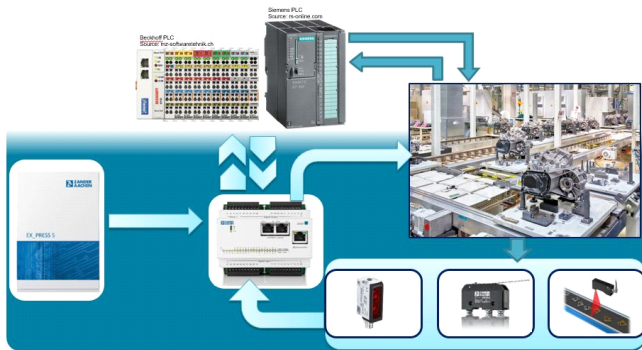
- Programming in structured text (ST) according to EN 61131-3

- **Benefits**

- Easy to use comfortable developing system
- Familiar Windows surface

High-Speed Application Examples

ZX Series



Industry HMI-Soft PLC

MVisio Product Group





Automation in one hand

- Operating units MVisio are visualization tools used for packaging machinery, cutting facilities, filling stations, adhesion facilities, injection molding
- **Functions**
 - HMI PLC for small-medium sized systems
 - 5, 7 or 10 inch display
 - Resilient touch screen
- **Programming and visualization**
 - Free use of the software CODESYS
- **Benefits**
 - Cost efficient HMI-solutions
 - Connectable with high-speed PLC



Industry

MVisio Product Group





- Human-Machine interface, which can function as a Master/Slave or independant PLC
- In combination with other controls, for example the Zander ZX20, it allows visualization, parameterization and controlling of processes
- Different communication protocols, such as PROFINET I/O Master, Modbus TCP/RTU Master/Slave or EtherNet/IP

Industry HMI-Soft PLC

MVisio Pro 5





Display

- Diagonal: 5 inches, 16:9, 800 x 480, IP66
- Touch screen technology: capacitive
- Display backlight: TFT color / LED

Measurements

- 136 x 107 x 52 mm

Processor

- ARM Cortex A8, 1 GHz

Communication

- PROFINET (Controller/Master)
- EtherNet/IP (Scanner/Master)
- Modbus TCP/RTU (Master/Slave)
- CANopen (Master)
- OPC UA

Industry HMI-Soft PLC

MVisio Pro 7





Display

- Diagonal: 7 inches, 16:9, 800 x 480, IP66
- Touch screen technology: capacitive
- Display backlight: TFT color / LED

Measurements

- 187 x 147 x 47 mm

Prozessor

- ARM Cortex A9, dual-core 800 MHz

Communication

- PROFINET (Controller/Master)
- EtherNet/IP (Scanner/Master)
- Modbus TCP/RTU (Master/Slave)
- CANopen (Master)
- OPC UA

Industry HMI-Soft PLC

MVisio Lite 7





Display

- Diagonal: 7 inches, 16:9, 800 x 480, IP66
- Touch screen technology: resistant
- Display backlight: TFT color / LED

Measurements

- 187 x 147 x 29 mm

Processor

- ARM Cortex A9, dual-core 800 MHz

Communication

- PROFINET (Controller/Master)
- EtherNet/IP (Scanner/Master)
- Modbus TCP/RTU (Master/Slave)
- CANopen (Master)
- OPC UA

Multifunctional Plug-In I/O-Modul

MVisio I/O-Module





Function

- Pluggable I/O-Module expands HMI MVisio and MVisio Pro to a full-fledged PLC (not compatible with MVisio Lite)

Inputs and Outputs

- 20 digital inputs
- 12 digital outputs
- Encoder, frequency- and counter input
- Up to 8 analog inputs
- 4 analog outputs
- Pt100 and thermo couple inputs

Benefits

- Easy installation via. plug-in
- Transforms MVisio into a multifunctional independant HMI PLC

The Cloud Gateway

MVisio HMI with OPC UA



- Optimal integration into existing systems



- Standardised access of machines and devices
- Connectivity in the entire production process



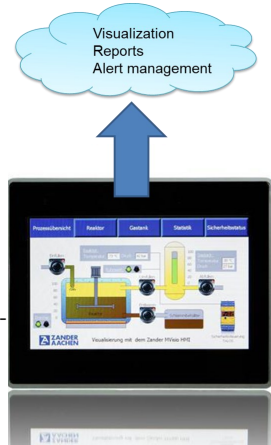
- Platform independent extension
- Easy configuration



- Safety via encrypting, authentication and user control



- Process data analysing and observing
- No additional hardware necessary
- Entire history of your plants
- Serverpark in Germany
- Individual configuration of dash boards, alarms and reports
- Status monitoring and long-period analysis
- Smart data, less data trash



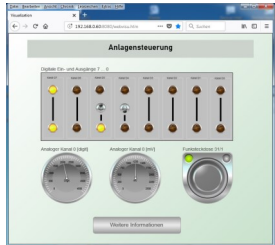
Long distance maintenance via MVisio HMI

Options

- Authorized long distance access over systems
- Maintenance through VPN-connection
- Easy use via selected internet browsers

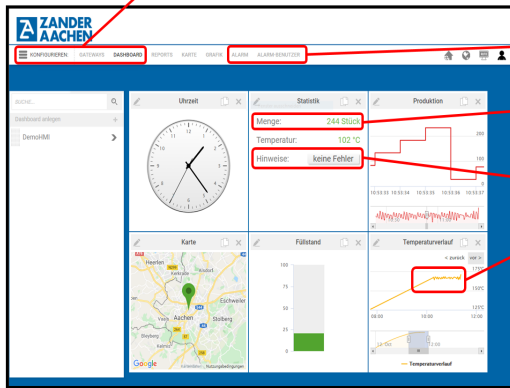
Benefits

- Cost- and time saving
- Product competence on the device
- No disturbances in the company processes



MVisio HMI - Internet Browser Dashboard

Individual Configuration



Alarm management

Production history

Error history

Process data history

ZANDER - Service Portfolio

Engineering





Our portfolio is characterized by the following fields:

- Automation concept design
- Support while selecting components
- Individual software program creation for your safety – and automation solution
- Support with standardized requirements
- Support and realisation of retrofit/redesign of your existing applications
- Digitalisation of the human-/machine interface with the most modern HMI-solutions
- Customized component development and production

Individual Solutions

Software Services





Developing individual automation software in structured text (ST):

- We develop software solutions for your individual applications of the Zander ZX High-Speed PLC



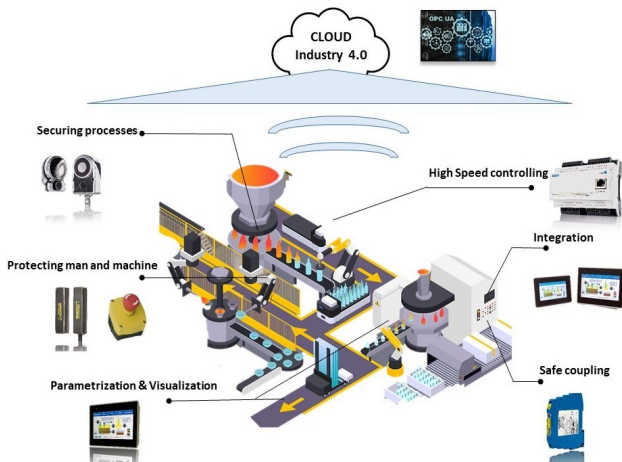
Developing an individual safety solution:

- Adjusted and certified safety solution
- Individual safety-configuration via memory card for our Safety PLC TALOS



For medium-sized Companies

Industry 4.0





We optimize the communication structure of your machine and processes. We make networking possible from the lowest process level to the master computer. The focus is on human-machine interaction.

We achieve optimization e.g. through:

- Visualization of a digital process twin
- Automation and flexibility of the operator interface in connection with our visualization tool (HMI)

Application Examples

Retrofit & Developing





In cooperation with the operators we have optimized an already existing, automated lid feeding system of the sweets manufacturer Zentis.

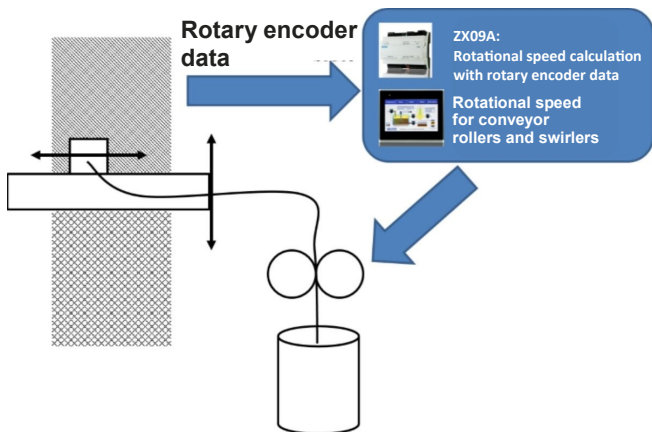
Together with our client we have concluded the following benefits:

- Higher selectivity and real time processing through High-Speed Controller ZX20.
- Fast diagnosis and error messaging with process visualization together with the HMI MVisio 7
- Saving of hardware by software parameterization through HMI MVisio
- Enabling of access rights
- Saving of hardware



Conveyor belt rollers in the textile industry

Retrofit



Retrofit - The Zander Solution

Encoder data



- Zander-Controller ZX09A
- Recording of SSI-rotary encoder data
- Calculation of the conveyor-speed

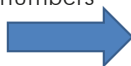
- HMI MVisio 7 Pro
- Recording of the ZX09A-data
- Calculation of the rotational speed
- Parameterization of the walz diameter
- Controlling of the motors



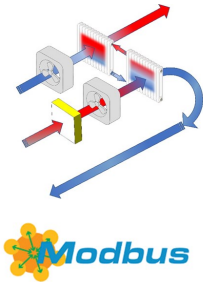
Conveyor-speed



Rotary numbers



Control system for the Air-Conditioning industry Engineering



- Control- and regulation-system with visualization
- Remote maintenance
- Temperature- and moisture regulation
- 16 combinable regulation-types
- PID-regulator
- Trend-display for putting into operation and monitoring
- Language adjustment

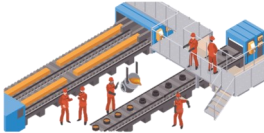
Engineering - The Compact Solution

- HMI MVisio 5 Pro + MVisio I/O-module
- High communication-ability allows remote and device connection
- OPC UA- Modbus-connectable
- Visualization manager allows flexible visualization
- Versatile software-tool CoDeSys allows realizing individual customer desires



Controlling task with a rolling mill for the steel industry

Engineering



- Motor controlling for a rolling mill
- Manual controlling of the plant with multiple ZX20T
- Controlling in switch cabinets integrated
- Controlling of multiple high power converters
- Recording of material properties through sensors and pluggable data processing

Engineering - Sorting-System for Pharmacy-Products

MVisio HMI Pro 7":
parameterization

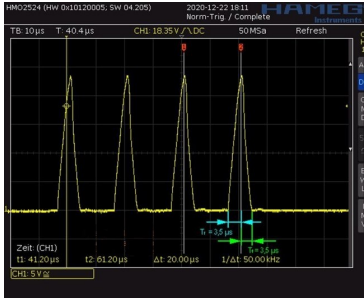


ZX09A: fast sorting

- Sorting-system with visualization
- Analog fill-level sensors
- Fast sorting-task in ZX09A
- Parameterization in MVisio HMI 7 Pro
- Fill-level controlling in 3 different measuring modes

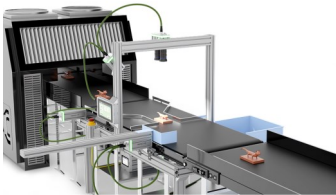
Application examples: Generating of short switching pulses

Retrofit



- Generating of short output-pulse
- Rise-/fall time of the output driver of $3.5\ \mu\text{s}$
- Resulting of minimal puls-width of $7\ \mu\text{s}$
- Programmable timer switching time periods in 125 ns steps
- Long-term output frequency of 25 kHz

Engineering - Application Example: Sorting-system for pharmaceutical products



robodev.com | 13.01.2021 | Sorting on conveyor belts

- Rotary encoder on the conveyor belt
- Rotary data through SSI-interface
- Exact position determination of parts on conveyor belts
- 6 sensor stations on conveyor belts
- Fast sorting of different parts

Application Example: Packaging street

High-Speed Application

- Encoder on conveyor belts
- Position-sensing through SSI-interface
- Precise position-sensing of conveyor belts
- Fast mounting of cartons possible
- Sorting through selection of parts to sluice



Michael KR | 13.01.2021 | CC BY-SA 4.0

Coming Soon

COMING
SOON !



Automation

High-Speed Basis-PLC-module ZX1 FLEX



Supported by:



Federal Ministry
for Economic Affairs
and Climate Action

on the basis of a decision
by the German Bundestag

ZX1 FLEX - High-Speed Basis-PLC-module

Functions

- The recording and processing of digital and analog signals
- Real-time communication through Zander-Link
- TSN and OPC UA - server functionalities
- Basis-module with light I/O-extension through ZanderLink



Benefits

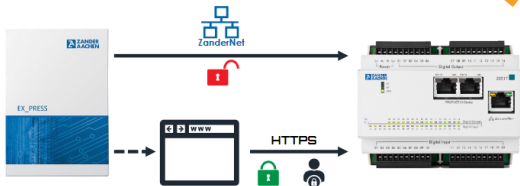
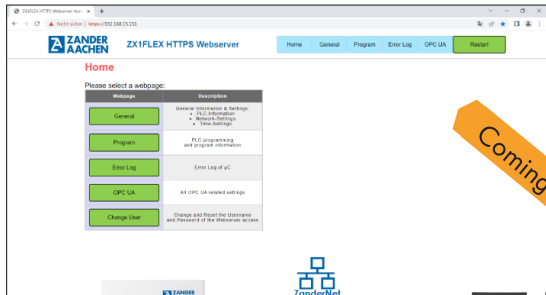
- Highspeed-PLC without cycle time with digital and analog I/Os
- Communication OPC UA, PROFINET and Modbus
- 4x ZanderLink for more connectivity

Reaction time

- $<10 \mu s$ for analog and digital signals

High-Speed Basis-PLC-module

ZX1FLEX



ZX1FLEX - High-Speed Basis-PLC-module

The ZX1FLEX represents the ideal basis-module for a connected application. Along with an optimal connection the ZX21Flex also offers the functions of a safe web-server for programming, configuration and monitoring.

- Programming of the controller through web-server
- Configuration of the controller as well as the OPC UA-Server
- Monitoring of the status and function of the controller

Monitoring via Modbus RTU

MVisio Mon 4



MVisio Mon 4 - Monitoring via Modbus RTU

- Compact 4.3 inch display with a resolution of 480 x 272
- Resistant touch-display for display control
- Limitless design of the visualization, suited to your desires
- Integrated Modbus RTU Master-functions
- Display of data and process variables
- Ideal monitor for TALOS Modbus, ZX-controllers and much more
- Easy montage into switching cabinets

Event Based Camera MVision



MVision - Event Based Camera

The new form of high-speed image processing - the Vision Cam EB

- Intelligent, super-fast image processing
- Capture and process changes and events at new speeds
- Image processing for complex, fast and even short-lived processes
- Jitter-free high-speed process control through the PLC of the ZX-series, fast and event-oriented image processing with the intelligent Event-Based Camera

Region International

Sales partners



Sales partners - Global



- AFRICA: Meyer Industrie-Electronic GmbH - www.meyle.de
- ASIA: straschu Elektro-Vetriebs-GmbH - gaosong@straschu.cn
- BRAZIL: Choice Technologia - www.choichetech.com.br
- CANADA: HSSI Hirotronix Sensors & Solutions Inc. - www.hirotronix.com
- CHINA: Shanghai Suyuan Electrical - suyuan021@163.com
- ISRAEL: V5 Group - www.v5-group.com
- SWITZERLAND: Mattle Industrie-Produkte GmbH - www.mattle-ag.ch

Sales partners

Europe



- AUSTRIA: E.S.Elektronik GmbH - www.es.at
- CZECH Republik: SYSTEMOTRONIC, s.r.o. - www.systemotronic.cz
- DENMARK: OEM Denmark - www.oemklitso.dk
- FINLAND: Sarlin Oy Ab - www.sarlin.com
TamControl Oy - www.tamcontrol.fi
- GREEK: Electrotherm Marine Automation - electrotherm-marine.gr
- HUNGARY: Hegetronik - www.hegetronik.hu
- ITALY: PIERO BERSANINI S.p.A. - www.pierobersanini.com (Safety)
Kiepe Electric S.p.A. - www.kiepeelectric.com (Automation)
- LATVIA: Lampa - www.lampa.lv
- NETHERLANDS: Vierpool BV - www.vierpool.nl
- NORWAY: OEM Norway - www.oem.no
- POLAND: straschu Elektro-Dystrybucja - www.straschu.pl
- SLOVAKIA: SYSTEMOTRONIC, s.r.o. - www.systemotronic.cz
- SWEDEN: OEM Sweden - www.oemautomatic.se

Notes

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