SIEMENS

Monitoring, Controlling and Switching with SIRIUS Relays

One Range for Every Application

siemens.com/relays

Answers for industry.

The Full-Range SIRIUS Relay Portfolio

Every engineer knows that he must be completely up to date when it comes to controls, load feeders and drives. However, with coupling, control and monitoring relays, the search among the various suppliers becomes time-consuming. This is now a thing of the past because we have combined all these products in a single range: SIRIUS®. This makes it easy for you to select the optimum product and guarantees a top price-performance ratio.

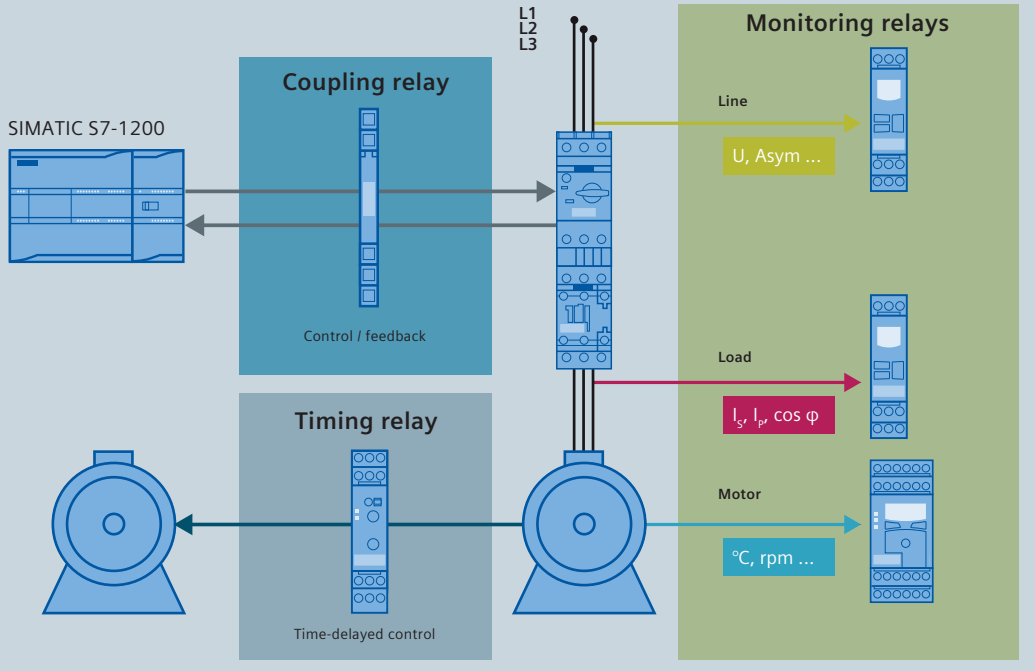
SIRIUS relays – one range for every application

Our range of SIRIUS relays comprises everything required for motor feeder applications. With maximum ease and comfort. From a single source. Whether compact timing or reliable monitoring relays, particularly narrow coupling relays, plug-in relays, low-noise power relays or interface converters – our relay range is the most complete and comprehensive portfolio on the market. We offer relays for each and every application. Moreover, all SIRIUS relays offer outstanding ease of operation. Take a closer look at our portfolio and convince yourself. You will be surprised.

Highlights at a glance

- **Broad applicability**
  comprehensive portfolio
- **User-friendly**
  easy operation
- **Multi-functional**
  flexibly applicable relays
- **Practice-oriented**
  graded for customized performance
- **Open communication with the control**
  thanks to IO-Link interface
- **Excellent cost/performance ratio**

Application of SIRIUS relays



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SIRIUS Monitoring Relays for IO-Link

Reliable monitoring and protection

SIRIUS relays by Siemens offer maximum machine and system protection and now also communicate with the control level thanks to IO-Link. The new SIRIUS relays for IO-Link monitor line quality, current values, voltages, speeds and temperatures with the known reliability while supporting an even broader application area.

SIRIUS speaks IO-Link

With the SIRIUs monitoring relays for IO-Link, you opt for maximum flexibility: In addition to the unchanged autonomous monitoring function, measured values and data can be directly transferred to the control via IO-Link. Also parameterization can either be realized locally or via IO-Link. The SIRIUS relays for IO-Link are thus fully integrated in Totally Integrated Automation, our open system architecture for integrated automation. Moreover, you will benefit from considerably eased device replacement – thanks to data comparison and automatic re-parameterization via parameter servers.

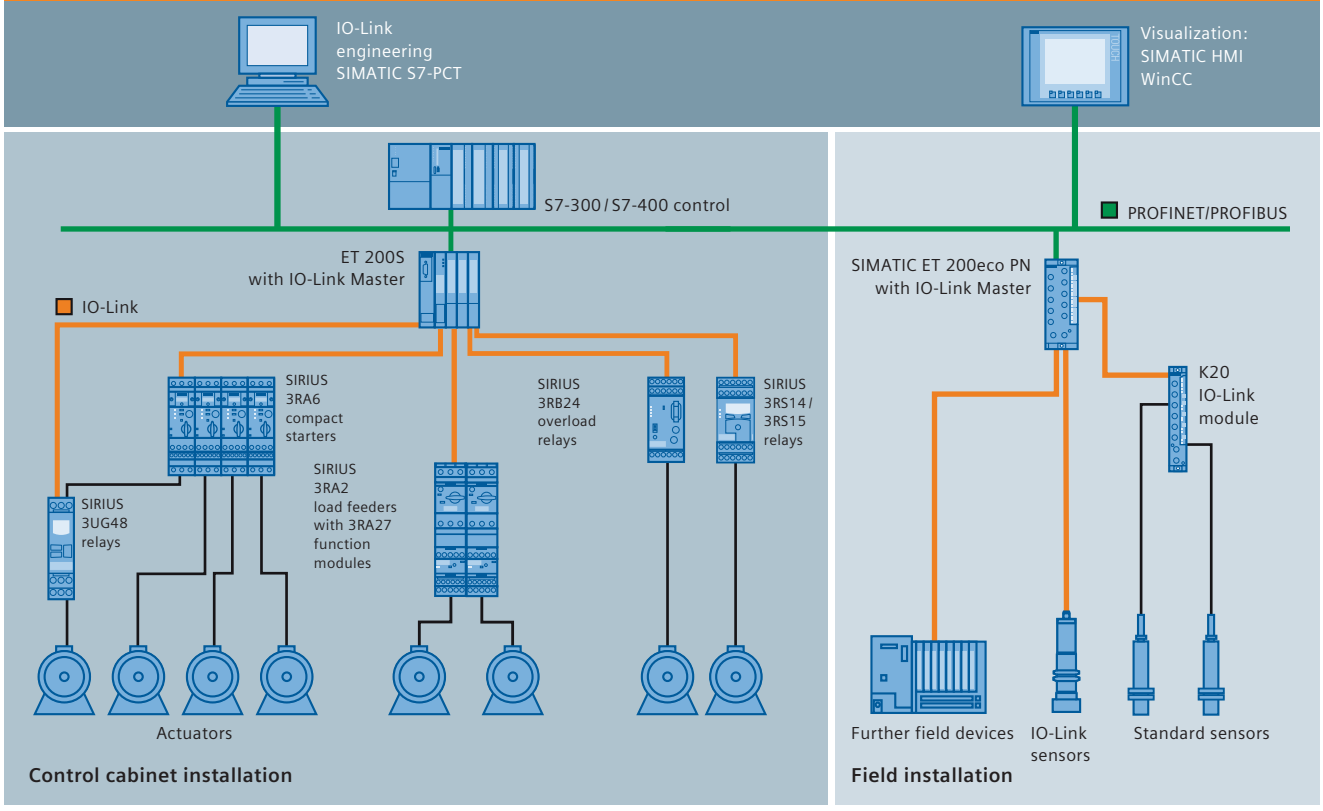
Your advantages

- Precise monitoring of electrical, mechanical and temperature values
- Reliable protection of motors and system components
- Realization of simple autonomous temperature control tasks (2-point, 3-point control)
- Connection to the control level via IO-Link
- Central fault diagnostics and localization
- Eased commissioning and maintenance
- Efficient energy management with SIRIUS 3UG48: Support of the data formats defined in the PROFIenergy profile

SIRIUS monitoring relays for IO-Link:

- **SIRIUS 3RR24:** 3-phase current monitoring directly integrated in the load feeder
- **SIRIUS 3UG48:** Monitoring of electrical and mechanical parameters: Voltage, current, power factor and speed
- **SIRIUS 3RS14/15:** Monitoring of temperatures

Unique consistency: IO-Link integrated in Totally Integrated Automation



3RP15 / 20 and 7PV15 Timing Relays

for DIN rail mounting

Electronic timing relays are employed for all time-delayed switching processes in control, starting, protection and regulation circuits. Thanks to their elaborate operating concept and space-saving, compact design, the 3RP15 / 20 timing relays represent ideal timing devices for manufacturers of industrial control cabinets, power distribution boards and controls. With their narrow design, the 7PV15 timing relays are particularly suitable for applications in heaters, fans, air conditioning systems and compressors.

Application areas

ON delay
- Interference pulse suppression (gating of interference pulses)
- Successive motor starting to prevent mains overloads, etc.

OFF delay
- Generation of overtravel functions after disconnection of the control voltage (e.g. fan overtravel)
- Successively delayed disconnection of motors, fans, etc., for targeted system shutdown

Star-delta
- Motor start-up with reduced starting current in star circuit
- Switchover to delta operation for full motor power after adjustable time
- Short switchover break to prevent phase leakage with delayed contactor switching

Multifunction
- Maximum flexibility: One device with wide-range supply for all time functions

Your advantages
• Compact range for all applications thanks to multi-function devices
• Significant logistical advantages thanks to versions with wide voltage and wide time setting ranges
• DIN rail mounting and disassembly without tools
• Cadmium-free relay contacts
• Recyclable, halogen-free enclosure
3RP15 / 20 timing relays
• Documentation of the function set on the multi-function timing relay via label sets
• Sealable cover for safeguarding of set parameters
7PV15 timing relays
• Minimum variance: One design both for power distribution boards and control cabinets
• Compliance with EMC requirements for residential areas
• Switchover break with star/delta adjustable from 50 ms to 1 sec, for optimum adjustability to the application

Application areas of the 3RP15 / 20 and 7PV15 ranges

3RP15 – the premium range for all applications in industrial-standard width 22.5 mm: For variable application thanks to versions with 1 or 2 relays, screw type or spring-loaded terminals, hard gold-plated contacts, positively driven operation, etc.

3RP20 – timing relays in contactor design: Recommended for small distance between DIN rails and/or low installation depths, e.g. in control boxes.

7PV15 – the version for standard applications: Narrow and cost-favorable, both for control cabinets and power distribution boards.

3RA2811 / 12 / 16 Function Modules

for mounting on 3RT2 contactors

The function modules facilitate the assembly of starters and contactor combinations for direct and star-delta start-up. They comprise all important control functions required for the respective feeder – e.g. timing and electric interlocking function. The function modules, which act as timing relays, can be rapidly and easily mounted on SIRIUS contactors – without laborious wiring. They support contactor switching both with ON and OFF delay.

Application areas

ON delay

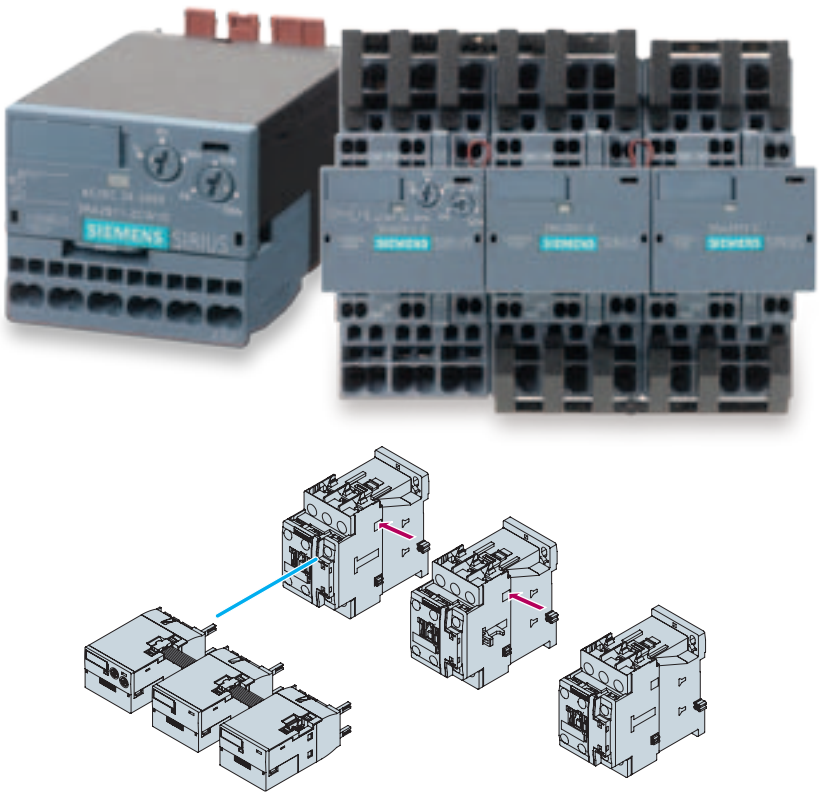
- Time-delayed start-up of multiple drives for example reduces the summation starting current and thus prevents the occurrence of line voltage dips or cable overloads (cascade circuit)

OFF delay

- Time-controlled disconnection of a drive's control signal after a start pulse, e.g. with gate control, follow-up ventilation

Function modules for star-delta start

- Switchover during drive start-up, e.g. switchover of large fans from star to delta as current-limiting measure
- Fixed switchover break of 50 ms for short-circuit protection
- Universal applicability thanks to wide voltage and large setting range of the star start-up time



Star-delta function module:
Easy and fault-free mounting on 3RT2 contactors thanks to plug-in technology

Your advantages
• Reduction of control circuit wiring
• Prevention of wiring faults
• 24 – 240 V AC/DC wide voltage range for control supply voltage and contactor coil control
• Reduced testing costs
• Realization of control-independent timing functions
• Space savings in the control cabinet (compared to a separate timing relay)
• No additive protective circuit required (integrated varistor)
• Automatic preference circuit with star-delta function modules for further reduction of current peaks
• Assembly of star-delta starters, including timing function and electric locking, without additional wiring
• Approvals in accordance with IEC, CCC, UL and CSA standards

3RA2813 / 14 / 15 Time-Delayed Auxiliary Switches

for mounting on 3RT2 contactors

The electronically delayed auxiliary switches for mounting on contactors are dimensioned for contactor coil voltages from 24 to 240 V AC/DC (wide voltage). Auxiliary switches for control and status signals are employed especially for the switching of very small signals for electronic applications. They for example serve pump or fan over-travel similar to OFF delay timing relays or the delayed switch-on of a gate drive. Both the electrical and mechanical connection are realized by simply snapping the device on and locking it. A varistor is integrated in the time-delayed auxiliary switch for the attenuation of switching overvoltages in the contactor coil.

Application areas

ON delay

- For example for the delayed readiness signaling of a drive after start-up with centrifugal mass

OFF delay

- Generation of overtravel functions for fans or pumps after disconnection of the control voltage

Your advantages

- Flexible applicability for all contactor control supply voltages in the 24 – 240 V AC/DC range
- Selectable outputs 1NO+1NC or 1CO
- All modules with 24 – 240 V AC/DC wide voltage in the auxiliary circuit
- Integrated electric locking and factory-integrated varistor (protective circuit) - easy configuration
- Plug-on function modules for connection without tools
- High setting accuracy thanks to selectable time ranges
- Reduced variance – only 1 module for sizes S00 and S0
- Add-on modules for reduced wiring and space savings

Differences SIRIUS 3RA2811 / 12 / 16 and 3RA2813 / 14 / 15

- Unlike DIN rail mounted timing relays, 3RA2811 / 12 / 16 function modules do not feature any relay outputs. They represent timing relays which are directly mounted on 3RT2 contactors. Instead of the contactors, the function modules are controlled which then switch the contactors below via direct contact with the contactor coil.
- With 3RA2813/14/15 time-delayed auxiliary switches, the 3RT2 contactor is controlled which then switches on or off instantaneously. The auxiliary switch mounted on the contactor responds to this via voltage tap on the contactor coil and switches the relay outputs with a time delay.

3UG451 / 461 / 463 and 3UG481 / 483 Monitoring Relays

for line and single-phase voltage monitoring

The 3UG4 monitoring relays provide a maximum degree of protection for machines and systems. They facilitate the early detection of line and voltage faults, allowing for their rectification before any consequential damage can occur.

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Application areas

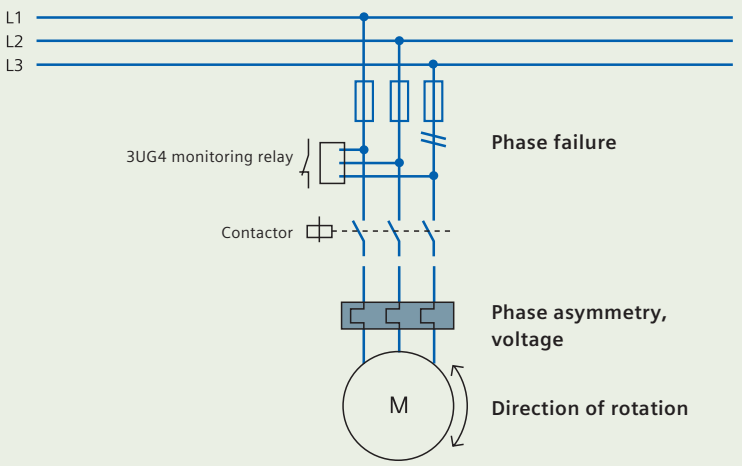
Typical applications can be derived from the table on page 11.

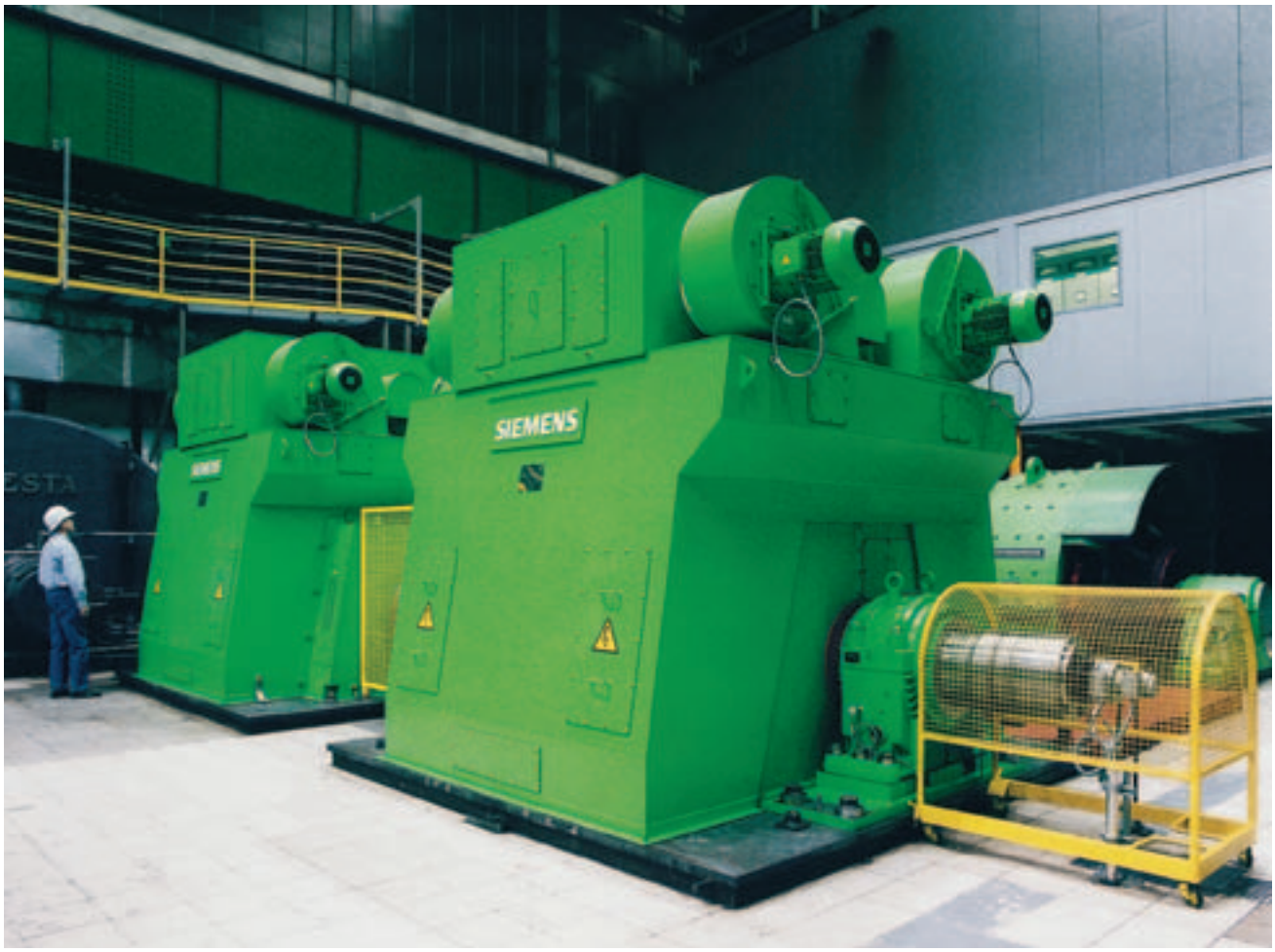
Scan the QR code and watch a video!

Your advantages

- Applicability in all global networks from 160 to 600 V AC without separate auxiliary voltage thanks to wide voltage range
- Variably adjustable to exceedance, shortfall or window monitoring
- Freely parameterizable delay times and reset behavior
- Narrow width for all versions
- Permanent display of actual value and power system fault type with digital versions
- Automatic direction of rotation correction thanks to differentiation between power system fault and incorrect phase sequence

Layout of 3-phase line monitoring





Measured variable	Possible system fault
Phase sequence	• Direction of rotation of the drive
Phase failure	• Fuse tripping • Control supply voltage failure • Single-phase operation of a motor with corresponding overheating
Phase asymmetry	• Motor overheating due to asymmetrical voltages or phase failure • Detection of asymmetrically loaded mains • Phase failure detection despite regenerative recovery
Undervoltage	• Increased motor current with respective overheating • Unintended device reset • Mains failure, particularly with battery supply • Threshold value switch for analog signals from 0 to 10 V
Overvoltage	• System protection against supply overvoltages • System switch-on upon reaching of a certain voltage • Threshold value switch for analog signals 0 to 10 V

3RR2 Monitoring Relays

for direct mounting on contactors for multi-phase current monitoring

The 3RR2 monitoring relays not only serve the monitoring of motors or other loads, but additionally also facilitate optimum current monitoring of the entire system or driven process. This for example allows for the early detection and signaling of load shedding or motor overloads. The 3RR2 monitoring relay for current monitoring is directly integrated in the load feeder. It is simply plugged onto the contactor.

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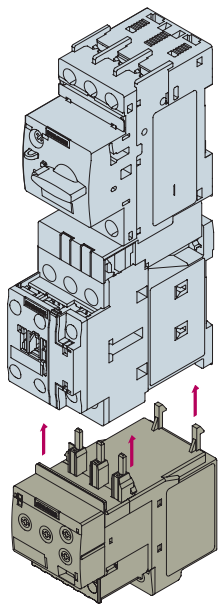
Scan the QR code and watch a video!



Current monitoring directly in the main circuit

Application areas

- Monitoring for current exceedance and shortfall
- Monitoring for line breakage
- Monitoring for no-load operation and load shedding, e.g. in case of V-belt breakage or pump idling
- Monitoring for overload, e.g. caused by with excessive loading of conveyor belts or cranes
- Monitoring for the functionality of electric loads such as heatings
- Monitoring for incorrect phase sequence with mobile systems such as compressors or cranes
- Monitoring for incomplete ground faults, e.g. due to damaged insulation or humidity

Your advantages

- Direct mounting on 3RT2 contactors, i.e. no additional wiring expenditures in the main circuit
- Optimally matched to the technical characteristics of 3RT2 contactors, no separate current transformers required
- 2- or 3-phase current monitoring, apparent or active current monitoring
- Display of actual value and status signals
- Easy determination of threshold values thanks to direct reference to actually measured values
- Only one device is required for motor monitoring along the entire torque curve
- Monitoring for cable breakage, phase failure, phase sequence, fault current as well as motor blocking

3UG4621 / 4622 / 4641 and 3UG4822 / 4841 Monitoring Relays

for single-phase current, power factor and active current monitoring

The 3UG4 relays for current, active power and active current monitoring are ideally suited for monitoring the load of motors and the functionality of electric loads. These devices detect signs of wear and faults early on, thereby for example facilitating the timely implementation of maintenance measures to prevent system failures.

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Application areas

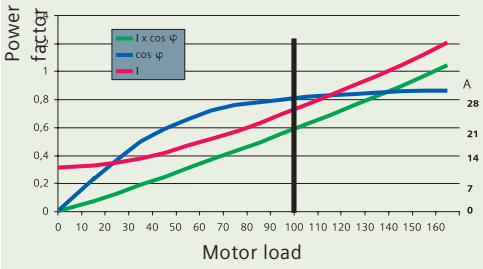
Current monitoring
- Overload monitoring
- Underload monitoring close to the rated torque
- Monitoring of the functionality of electric loads
- Wire breakage monitoring
- Energy management (phase current monitoring)
- Threshold value switch for analog signals from 4 to 20 mA

Power factor and active current monitoring
- No-load monitoring
- Underload monitoring in the lower power range
- Overload monitoring
- Easy power factor monitoring in networks for the control of compensation systems
- Energy management
- Cable breakage between control cabinet and motor

Scan the QR code and watch a video!

Current and active power in dependence of the motor load

Rule of thumb: The power factor changes significantly below the rated load; the current increases disproportionally above the rated load.



The active current Ires indicates a linear correlation between the motor load and the measured value over the entire measuring range.

Your advantages

- Reduced stock-keeping thanks to wide-voltage versions
- Variably adjustable to exceedance, shortfall or window monitoring
- Freely parameterizable delay times and reset behavior
- Permanent display of actual value and fault type
- Setting of monitoring limits on the basis of real measured values
- Real effective value measurement

Current monitoring
- Only two versions from 2 mA to 10 A
- Applicable for frequencies with 40–500 Hz AC and DC

Power factor and active current monitoring
- Global applicability thanks to wide voltage from 90 to 690 V AC
- Monitoring of smaller single-phase motors with a no-load current below 0.5 A
- One device for motor monitoring, from no-load to overload
- Voltage-independent monitoring of the motor load

3UG4624 Monitoring Relays

for residual current monitoring

Over time, systems may be subjected to insulation problems caused by humidity or severe contamination. As a result, residual currents may result in severe system damage. In order to reliably exclude such risks, the application of a 3UG4624 fault current monitoring relay in combination with a 3UL22 residual current transformer is recommended. Based on adjustable limit or warning threshold values, the relay generates a warning already before the limit value is reached and ensures reliable disconnection after a certain delay time upon exceedance of the limit value.

Application areas

Monitoring of systems prone to residual currents, e.g. caused by:

- Dust deposits or humidity
- Porous cables and lines
- Capacitive earth leakage currents

Your advantages

- Global applicability thanks to wide voltage range from 90 to 690 V AC
- Variably adjustable threshold values for warning and disconnection
- Freely parameterizable delay times and reset behavior
- Permanent display of the actual value and fault diagnostics via display
- High flexibility and space savings thanks to the current transformers assembly outside the control cabinet

3UG458 Monitoring Relays

for insulation monitoring

Insulation monitoring relays are employed for monitoring the insulation resistance between ungrounded single- or three-phase networks and a protective conductor. Ungrounded, i.e. insulated networks (IT networks), are used whenever a high reliability of the power supply has to be ensured, e.g. with emergency lighting systems. Operation can be continued without risks after a first insulation fault (single fault security). Nevertheless, the fault has to be rectified as soon as possible before a second insulation fault occurs (e.g. in accordance with DIN VDE 0100-410). For this purpose, insulation monitoring relays are employed for permanently measuring the resistance of the line conductors and the neutral conductor against ground and prompt fault signaling upon shortfall of the set insulation resistance.

Application areas

Amongst others, IT networks are employed in the following applications:

- Emergency power supply systems
- Emergency lighting systems
- Industrial production plants with high availability requirements (chemical industry, automotive industry, printing industry)
- Marine and railway applications
- Mobile current generators (airplanes)
- Renewable energies, e.g. wind energy and photovoltaic plants
- Mining

Your advantages
• Devices for AC and DC systems
• All devices with wide supply voltage range
• Direct connection to networks with line voltages up to 690 V AC and 1000 V DC via series module
• With AC networks: Frequency range15 ... 400 Hz
• Monitoring for line breakage
• Monitoring for faulty settings
• Application safety thanks to integrated system start after start-up
• Reset and test option (via button on the front or control contact)
• Rapid response times thanks to new predictive measuring principle

3UG4501 Monitoring Relays

for level monitoring

The 3UG4 monitoring relays also detect non-electrical parameters. Our 3UG4501 level monitoring relays ensure reliable 1- or 2-point control and the generation of alarm messages in case of overflow or dry running on the basis of a simple principle: Almost all liquids are conductive, which is utilized for the monitoring of filling levels. Current flows as long as the probes are immersed in the liquid – once the probes fall dry no current flows.

Scan the QR code and watch a video!

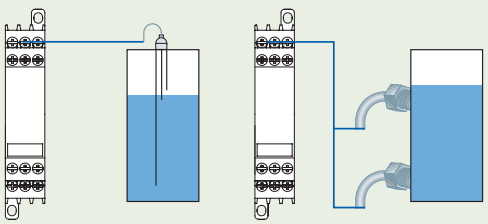
Application areas

- 1- and 2-point level control
- Overflow protection
- Dry running protection
- Leakage monitoring

Your advantages

- Global applicability thanks to wide voltage range from 24 to 240 V AC/DC
- Individually trimmable 2- and 3-pole wire electrodes for easy mounting from the top/bottom
- Bow electrodes for lateral installation for higher filling levels and minimum space requirements
- Flexible adjustability to various conductive liquids thanks to analog sensitivity setting from 2 to 200 kOhm
- Compensation of wave movements thanks to tripping delay times from 0.1 to 10 seconds
- Selectable feed or discharge function

1- and 2-point level monitoring, overflow protection



This method is applicable with very many liquids and substances. Prerequisite: Specific resistance < 200 kΩ

Product	kΩ	Product	kΩ
Buttermilk	1	Natural water	5
Fruit juice	1	Wastewater	5
Vegetable juice	1	Starch solution	5
Milk	1	Oil	10
Soup	2.2	Condensed water	18
Beer	2.2	Soap foam	18
Coffee	2.2	Jams	45
Ink	2.2	Jellies	45
Salt water	2,2	Sugar solution	90
Wine	2.2	Whisky	220
		Distilled water	450

3UG4651 and 3UG4851 Monitoring Relays

for speed monitoring

The 3UG4651 monitoring relays monitor the target speed of motors, shafts or driven wheels for exceedance and shortfall. Based on periodic continuous measuring, they monitor the pulses delivered per rotation by the attached sensors. Furthermore, the relays are suitable for all functions requiring the monitoring of a continuous pulse signal, e.g. belt operation and scan time monitoring or bypass control.

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Scan the QR code and watch a video!

Application areas

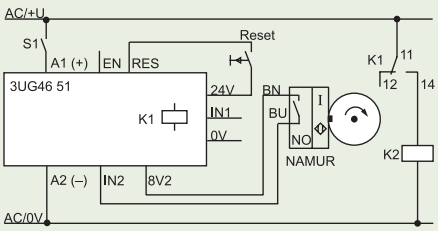
- Slip/breakage of a belt drive
- Load shedding
- Standstill monitoring (no operator protection)
- Transport item monitoring for completeness

Your advantages

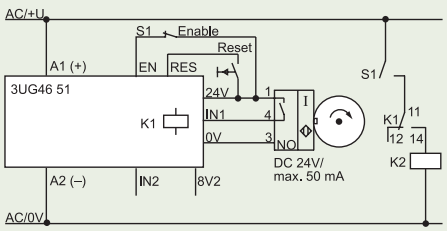
- Global applicability thanks to wide voltage range from 24 to 240 V AC
- Variably adjustable to exceedance, shortfall or window monitoring
- Freely parameterizable delay times and reset behavior
- Permanent display of actual value or fault type
- Use of up to 10 sensors per rotation with extremely slowly rotating motors
- Connection option for 2- or 3--conductor sensors and sensors with mechanical switching or electronic output
- Integrated auxiliary voltage for sensor

Speed monitoring example with 3UG4651

Without enable input



With enable input



3RN1 Thermistor Motor Protection

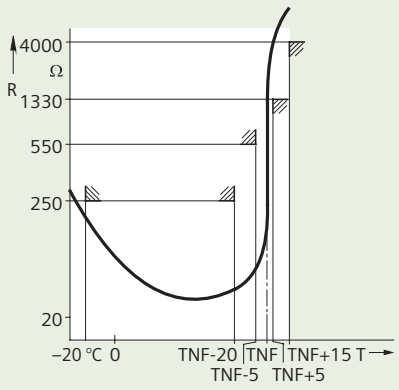
for protection against overheating

Thermistor motor protection relays provide decisive advantages wherever current-dependent protection by means of circuit breaker or overload relay does not offer the perfect monitoring solution: In some cases, mostly as a result of external effects, overheating can occur without being detected by the thermal image in the circuit breaker or overload relay. Examples include heavy-duty starting (e.g. centrifuges), operation with frequency converters or frequent switching, braking operations or impeded cooling, e.g. due to dirty environment.

Application areas

- Protection of motors against overheating, particularly with heavy-duty starting, breaking operation, frequent switching or insufficient cooling
- "Warning and disconnection" function based on two sensor circuits with different response temperatures for responding prior to disconnection (additional cooling, load reduction, etc.)
- Multiple motor protection with only one device, e.g. with conveyor lines comprising multiple motors which are to be disconnected jointly

Characteristics for type A thermistor sensor



Your advantages

- Direct measuring of the motor winding temperature
- Only one device for all motor power ratings
- Device/terminal labeling acc. to DIN EN 50005 for "normal" switching relays and for overload protection systems
- Relays with hard gold-plated contacts for application under difficult conditions
- Indication of wire breakage and short circuit in the sensor circuit via LED
- Version with protective separation up to 300 V in accordance with DIN/VDE 0106 as well as version with bistable relays for special cases
- ATEX approval for gases and dust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3RS10 / 3RS11 Temperature Monitoring Relays

analog-adjustable

The 3RS10 / 3RS11 temperature monitoring relays are specialized in the measuring of temperatures in solid, liquid and gaseous media. The temperature is detected via sensors inside the medium, then evaluated by the device and monitored for exceedance or shortfall of the limit temperatures. Depending on the parameterization, the output relay switches on or off upon reaching of the threshold values.

Application areas

- Motor and system protection
- Control cabinet temperature monitoring
- Frost monitoring
- Temperature limits for process parameters, e.g. in the packing industry or galvanizing systems
- System and machine control, e.g. heating, air conditioning and ventilation systems, solar collectors, heat pumps or hot water supply systems
- Bearing and gear oil monitoring
- Coolant monitoring

Your advantages

- All devices with galvanic isolation, exception: 24 V AC/DC
- Easy operation via rotary potentiometer
- Selectable hysteresis
- Selectable operating principle for devices with two threshold values

3RS10 / 11 / 20 / 21 and 3RS14 / 15 Temperature Monitoring Relays

digital-adjustable

Suitable for temperature measuring in solid, liquid and gaseous media, these relays monitor temperatures for exceedance and shortfall or within a specific operating range (window function). The devices also present a good alternative to temperature controllers in the low-end range.

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Application areas

- System and environmental protection
- Temperature limits for process parameters, e.g. in the packing industry or galvanizing systems
- Temperature monitoring for heat generation plants
- Monitoring of exhaust gas temperatures
- System and machine control, e.g. heating, air conditioning and ventilation systems, solar collectors, heat pumps or hot water supply systems
- Motor, bearing and gear oil temperature monitoring
- Coolant monitoring

Your advantages

- Easy operation without complicated menu guidance
- 3-digit LED display for indication of the temperature
- Connection option for resistance sensors in 2- or 3-conductor technology
- Galvanic isolation with wide voltage supply versions
- Availability of versions in °C and °F (switchover from °C to °F possible with IO-Link versions)

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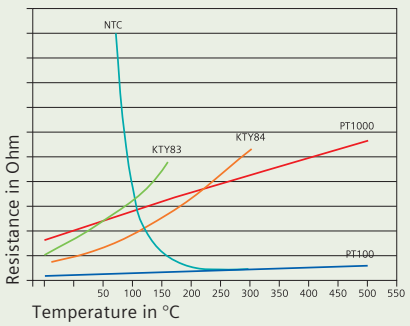
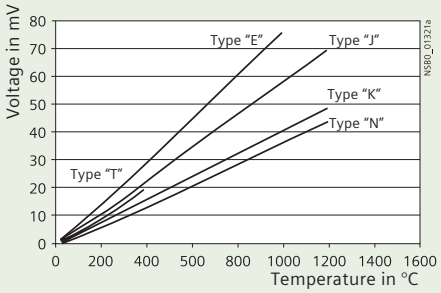
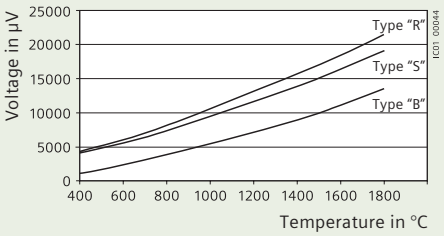
Characteristics of most important resistance temperature sensors



Characteristics for thermocouples



Characteristics for sensor types J, K, T, E and N



Characteristics for sensor types S, R, and B

3TX700 / 701 Coupling Relays

in narrow, compact design with relay output

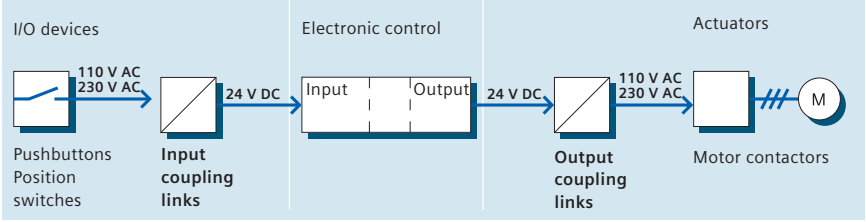
The 3TX70 coupling relays are available in two designs for space-optimized application in the control cabinet. On the one hand, the coupling relays with a width of only 6.2 mm require only minimum space on the DIN rail. On the other hand, a range of coupling relays with minimum depth / height is available for assembly in the control cabinet with minimum line spacing or in flat control boxes.

Application areas

- Galvanic isolation
- Voltage conversion, e.g. from 24 V DC to 230 V AC
- Signal amplification
- Contact multiplication
- General relay controls
- Overvoltage and EMC protection of controls

Your advantages with 3TX7002 / 03 (compact enclosure) and 3TX7004 / 05 (6.2 mm width)
• Soldered relays (not pluggable) for increased contact reliability
• Operating range from 0.7 to 1.25 U_s
• Temperature range up to 60 °C with 24 V DC
• Protective circuit integrated in the input
• Connection comb and cable for bridging of identical potentials
• Eased commissioning thanks to manual-0-automatic switch
Your advantages with 3TX7014 and 3TX7015 (6.2 mm width)
• Plug-in relays for rapid replacement with permanent wiring
• Reduced wiring time thanks to wire entry and clamping via the front
• Reduced mounting time thanks to tested complete devices
• Availability of individual relays as spare parts
• Device version with hard gold-plated contacts for high contact reliability

Coupling relays as input or output coupler



3TX700 Coupling Relays

in narrow, compact design with semiconductor output

Coupling modules are available with conventional relays or with semiconductor outputs. Compared to relays, the coupling modules with semiconductor output offer significant advantages: The electronic components are extremely reliable and have a very long service life (see diagram). The input coupler combines offers both advanced technology and price advantages. With regard to output couplers, the decision as to whether opt for "relay or semiconductor" should be based on the requirements regarding switching capacity and switching cycles. If a relay has to be replaced just once during the entire service life of a machine, then a semiconductor coupler has already paid off.

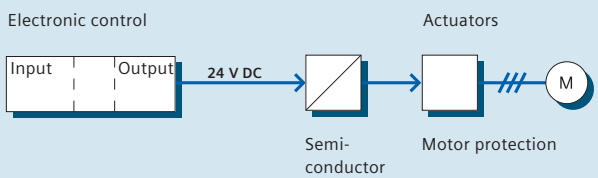
Application areas

- Galvanic isolation, voltage conversion
- Switching of DC loads
- Switching of capacitive loads
- Overvoltage and EMC protection of controls

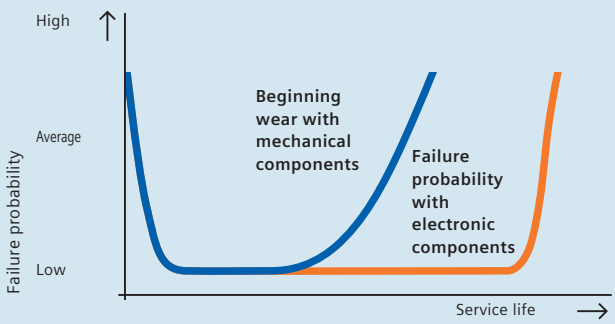
Your advantages with 3TX700 with semiconductor output

- Very long electrical service life
- Maximum contact reliability
- High DC switching capacity
- Short switching times
- Easy bridging of identical potentials thanks to suitable accessories
- High number of switching cycles
- Noise-free switching

Application of semiconductor couplers



Service life comparison



Electronic coupling modules have a significantly longer service life than electromechanical ones.

3RS18 Coupling Relays

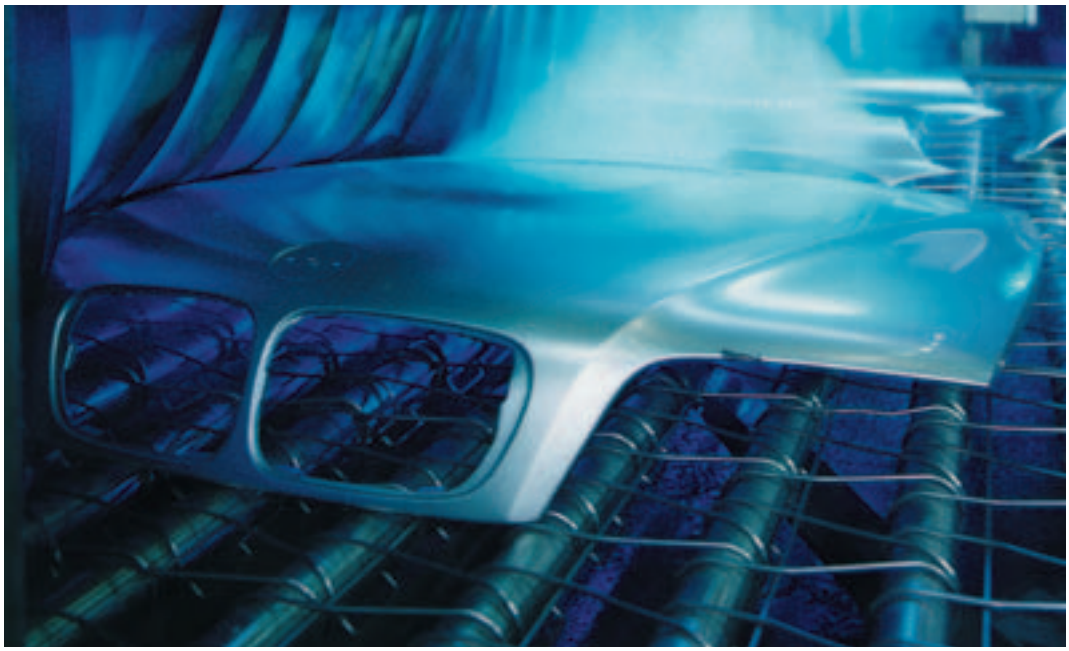
in industrial enclosure

The 3RS18 relay couplers set new standards: With a wide voltage range from AC/DC 24 V to 240 V, they represent an outstanding highlight in the coupling market. All devices of this range feature the tried-and-tested industrial enclosure with a width of 22.5 mm. They are equipped with one, two and three changeover contacts and are available with screw-type and spring-loaded connection system. Furthermore, they are equipped with hard gold-plated contacts for a particularly high contact reliability even with low current. With our industrial enclosure, you will benefit from a comfortable connection system with permanent wiring, just as with our timing relays. Two conductors can be connected per terminal.

Application areas

- Wherever electronically optimized contacts are required and devices with wide voltage are used
- Predestined for inputs and outputs on PLC thanks to hard gold-plated contacts

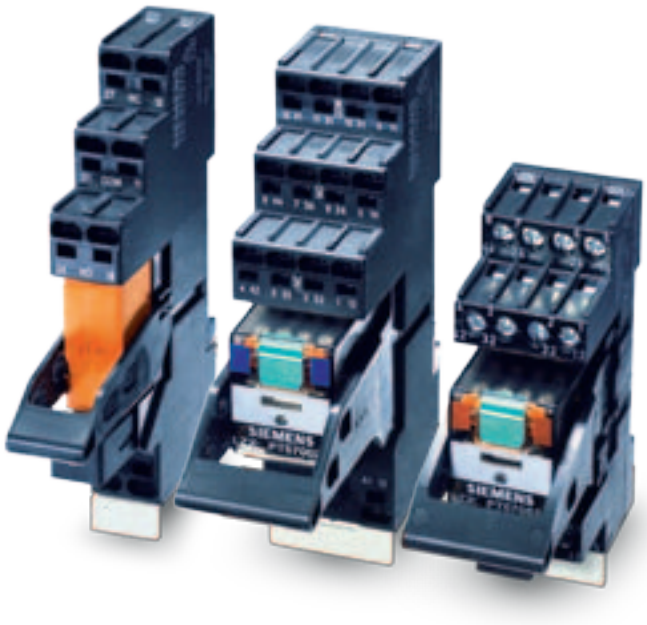
Your advantages
• One product for all voltages
• Cost savings thanks to reduced variance
• Particularly high contact reliability even with low currents



LZS Coupling Relays

with plug-in relays

Plug-in relay couplers are available both as complete devices and as individual modules for self-assembly or spare parts requirements. The range is divided into three types: RT, PT and MT.



Application areas

- As coupling relay for galvanic isolation between field and input and outputs of electronic controls
- Contact multiplication
- Switching of small loads
- As potential transfer switch

Your advantages

- Wiring without tools and vibration-proof connection thanks to innovative push-in spring-loaded terminals
- Base with logical separation for easy wiring
- Tested AC-15 and DC-13 switching capacity
- Available coil voltages: 24 V DC, 24 V AC, 115 V AC, 230 V AC
- Hard gold-plated contacts for optimum interaction with electronic controls

① Wiring bracket for push-in spring-loaded terminal base and ② screw terminal base

Configuration information

The test lever of the PT relay does not feature a latching mechanism. If the test lever is pressed further until a movement of 90° is reached, two small snap-in lugs break off and the test lever can be set to latching. When using plug-in relays with voltages of 60 Hz AC, the lower response value has to be increased by 10 %, the power loss decreases slightly.

Types

LZS:RT
1 or 2 CO contacts
AC-1: 16/8 A
Width: 15.5 mm

LZS:PT
2,3 or 4 CO contacts
AC-1: 12/10/6 A
Width: 28 mm

LZS:MT
3 CO contacts
AC-1: 10 A
Width: 38 mm

3RS17 Interface Converters

Standard signal and universal converters

Interface converters are mainly used for the galvanic isolation and conversion of analog signals. Sensors / actuators and controls generally have different power supply units and therefore require galvanic isolation in the signal circuit. This is either realized in the control or via an interface converter.
Signal conversion is for example required when a voltage signal has to be transferred as a current signal over a long distance or when the output of a sensor and the input of a control are incompatible.
A further application is supported by the realized frequency outputs. Here, the input signal is converted into a proportional frequency. As a result, analog signals can be processed with digital inputs. This is important in cases where the control does not feature a slot for an analog input or when all slots are already assigned, e.g. with retrofits.

Application areas

- Galvanic isolation of analog signals
- Conversion of analog signals
- Conversion of analog signals into a frequency
- Conversion of non-standardized signals into standardized signals
- Overvoltage protection of analog inputs

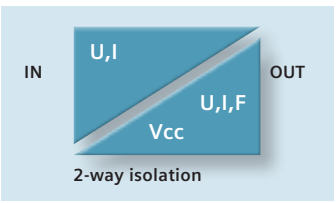
Your advantages
• Minimum width
• Easily adjustable universal converters
• Converters with frequency output
• Full calibration of all areas
• Integrated range, the ideal solution for every application
• Integrated manual-automatic switch with setpoint generator
• Short-circuit-proof outputs
• Protection against damage caused by faulty wiring up to 30 V

Passive converters

Passive converters do not require any supply voltage as their required energy is supplied via the analog signal.

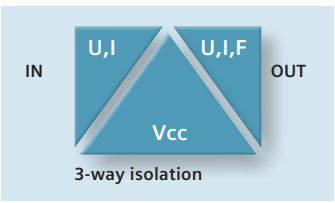
2-way isolation

With 2-way isolation, the input is galvanically isolated from the output. The “zero potential” of the supply voltage equals the potential which the analog output signal refers to.



3-way isolation

With 3-way isolation, all circuits are galvanically isolated from each other, i.e. input, output and supply voltage have no equipotential bonding.



3TG10 Power Relays

for high performance with minimum dimensions

The 3TG10 power relays come as the ideal solution for all applications requiring small, low-noise relays or contactors at low costs. The power relays are suitable for basic controls and particularly for use in large-scale series devices and controls. They are ideal for applications which require only one auxiliary contact and no overload relay – and place increased requirements upon switching capacity, switching voltage and service life.

Application areas

- Domestic appliances and installations
- Hoisting systems: Small elevators, elevating platforms
- Building technology, hum-free application in building systems, e.g. in hospitals

Your advantages
• Any mounting position, hum-free
• Safe isolation
• Screw-type or plug-in connection
• Integrated auxiliary switch
• AC-3 power: 4 kW / 400 V
• Operating current I_e/AC-1: 20 A / 400 V
• Inrush current per phase: 90 A
• Integrated overvoltage damping
• Narrow width of only 36 mm

Configuration information

With a 20 A load on the three main current paths, the following applies with I > 10 A for the fourth current path: Permissible ambient temperature 40 °C

Scan the QR code for further information

Further information:
siemens.com/relays

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Control Components
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GERMANY

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SIEMENS

Technical Data

Monitoring, Controlling and Switching with SIRIUS Relays

siemens.com/relays

Answers for industry.

SIRIUS 3RP15/3RP20 Timing Relays

3RP15 electronic timing relays in industrial enclosure 22.5 mm

Function	Contacts	Time range	Rated control supply voltage U_s	Order No.
8 functions	1 CO	0.05 s – 100 h	DC 12 V	3RP1505-☐AA40
8 functions	1 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP1505-☐AQ30
8 functions	1 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP1505-☐AP30
8 functions	1 CO	0.05 s–100 h	AC/DC 24 – 240 V	3RP1505-☐AW30
8 functions	2 CO	0.05 s – 100 h	AC/DC 24 – 240 V	3RP1505-☐RW30[1]
16 functions	2 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP1505-☐BQ30
16 functions	2 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP1505-☐BP30
16 functions	2 CO	0.05 s – 100 h	AC/DC 24 – 240 V	3RP1505-☐BW30
16 functions	2 CO	0.05 s – 100 h	AC 400 – 440 V	3RP1505-1BT20[2]
ON delay	1 CO	0.5 s – 10 s	AC/DC 24/AC 100 – 127 V	3RP1511-☐AQ30
ON delay	1 CO	0.5 s – 10 s	AC/DC 24/AC 200 – 240 V	3RP1511-☐AP30
ON delay	1 CO	1.5 s – 30 s	AC/DC 24/AC 100 – 127 V	3RP1512-☐AQ30
ON delay	1 CO	1.5 s – 30 s	AC/DC 24/AC 200 – 240 V	3RP1512-☐AP30
ON delay	1 CO	5 s – 100 s	AC/DC 24/AC 100 – 127 V	3RP1513-☐AQ30
ON delay	1 CO	5 s – 100 s	AC/DC 24/AC 200 – 240 V	3RP1513-☐AP30
ON delay	1 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP1525-☐AQ30
ON delay	1 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP1525-☐AP30
ON delay	2 CO	0.05 s – 100 h	AC/DC 42 – 48/60 V	3RP1525-☐BR30
ON delay	2 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP1525-☐BQ30
ON delay	2 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP1525-☐BP30
ON delay	2 CO	0.05 s – 100 h	AC/DC 24 – 240 V	3RP1525-☐BW30
ON delay, 2-wire	1 NO, Q	0.05 s – 240 s	AC/DC 24 – 66 V	3RP1527-☐EC30
ON delay, 2-wire	1 NO, Q	0.05 s – 240 s	AC/DC 90 – 240 V	3RP1527-☐EM30
OFF delay with auxiliary voltage	1 CO	0.5 s – 10 s	AC/DC 24/AC 100 – 127 V	3RP1531-☐AQ30
OFF delay with auxiliary voltage	1 CO	0.5 s – 10 s	AC/DC 24/AC 200 – 240	3RP1531-☐AP30
OFF delay with auxiliary voltage	1 CO	1.5 s – 30 s	AC/DC 24/AC 100 – 127 V	3RP1532-☐AQ30
OFF delay with auxiliary voltage	1 CO	1.5 s – 30 s	AC/DC 24/AC 200 – 240 V	3RP1532-☐AP30
OFF delay with auxiliary voltage	1 CO	5 s – 100 s	AC/DC 24/AC 100 – 127 V	3RP1533-☐AQ30
OFF delay with auxiliary voltage	1 CO	5 s – 100 s	AC/DC 24/AC 200 – 240 V	3RP1533-☐AP30
OFF delay without auxiliary voltage	1 CO	0.05 s – 600 s	AC/DC 24 V	3RP1540-☐AB31
OFF delay without auxiliary voltage	1 CO	0.05 s – 600 s	AC/DC 100 – 127 V	3RP1540-☐AJ31
OFF delay without auxiliary voltage	1 CO	0.05 s – 600 s	AC/DC 200 – 240 V	3RP1540-☐AN31
OFF delay without auxiliary voltage	1 CO	0.05 s – 600 s	AC/DC 24 – 240 V	3RP1540-☐AW31
OFF delay without auxiliary voltage	2 CO	0.05 s – 600 s	AC/DC 24 V	3RP1540-☐BB31
OFF delay without auxiliary voltage	2 CO	0.05 s – 600 s	AC/DC 100 – 127 V	3RP1540-☐BJ31
OFF delay without auxiliary voltage	2 CO	0.05 s – 600 s	AC/DC 200 – 240 V	3RP1540-☐BN31
OFF delay without auxiliary voltage	2 CO	0.05 s – 600 s	AC/DC 24 – 240 V	3RP1540-☐BW31
Clock generator	1 CO	0.05 s – 100 h	AC/DC 42 – 48/60 V	3RP1555-☐AR30
Clock generator	1 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP1555-☐AQ30
Clock generator	1 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP1555-☐AP30
Star-delta with overtravel function	3 x 1 NO	1 s – 20 s, 30 s – 600 s (overtravel)	AC/DC 24/AC 100 – 127 V	3RP1560-☐SQ30
Star-delta with overtravel function	3 x 1 NO	1 s – 20 s, 30 s – 600 s (overtravel)	AC/DC 24/AC 200 – 240 V	3RP1560-☐SP30
Star-delta	1 NO + 1 NO	1 s – 20 s	AC/DC 24/AC 100 – 127 V	3RP1574-☐NQ30
Star-delta	1 NO + 1 NO	1 s – 20 s	AC/DC 24/AC 200 – 240 V	3RP1574-☐NP30
Star-delta	1 NO + 1 NO	3 s – 60 s	AC/DC 24/AC 100 – 127 V	3RP1576-☐NQ30
Star-delta	1 NO + 1 NO	3 s – 60 s	AC/DC 24/AC 200 – 240 V	3RP1576-☐NP30

Screw terminals 1
Spring-loaded terminals 2

3RP20 electronic timing relays in SIRIUS design 45 mm

8 functions	1 CO	0,05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP2005-☐AQ30
8 functions	1 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP2005-☐AP30
ON delay	1 CO	0.05 s – 100 h	AC/DC 24/AC 100 – 127 V	3RP2025-☐AQ30
ON delay	1 CO	0.05 s – 100 h	AC/DC 24/AC 200 – 240 V	3RP2025-☐AP30
16 functions[3]	2 CO	0.05 s – 100 h	AC/DC 24 – 240 V	3RP2005-☐BW30

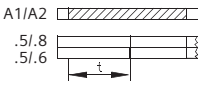
[1] Positively driven and hard gold-plated relay contacts
[2] This device is only available with screw terminals
[3] The 16 functions correspond to the 8 functions of the multifunction timing relays with 1 CO contact; it can be additionally specified whether both CO outputs respond with time delay or whether the second CO contact switches instantaneously

Screw terminals 1
Spring-loaded terminals 2

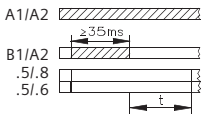
SIRIUS 7PV15 Timing Relays

7PV15 electronic timing relays in 17.5 mm enclosure for industrial and infrastructure applications				
Function	**Contacts**	**Time range**	**Rated control supply voltage U_s**	**Order No.**
7 functions	1 CO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1508-1AW30**
Multifunction	2 CO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1508-1BW30**
ON delay	1 CO	0.5 s – 10 s	AC/DC 24/AC 100 – 127 V	**7PV1512-1AQ30**
ON delay	1 CO	0.05 s – 1 s	AC/DC 24/AC 100 – 127 V	**7PV1511-1AP30**
ON delay	1 CO	0.5 s – 10 s	AC/DC 24/AC 200 – 240 V	**7PV1512-1AP30**
ON delay	1 CO	5 s – 100 s	AC/DC 24/AC 100 – 127 V	**7PV1513-1AQ30**
ON delay	1 CO	5 s – 100 s	AC/DC 24/AC 200 – 240 V	**7PV1513-1AP30**
ON delay	1 CO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1518-1AW30**
ON delay	1 CO	0.05 s – 100 h	AC/DC 90 – 127 V	**7PV1518-1AJ30**
ON delay	1 CO	0.05 s – 100 h	AC/DC 180 – 240 V	**7PV1518-1AN30**
OFF delay with auxiliary voltage	1 CO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1538-1AW30**
OFF delay without auxiliary voltage	1 CO	0.05 s – 100 s	AC/DC 12 – 240 V	**7PV1540-1AW30**
Clock generator	1 CO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1558-1AW30**
Star-delta	2 NO	0.05 s – 100 h	AC/DC 12 – 240 V	**7PV1578-1BW30**

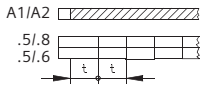
Function diagrams of timing relay functions



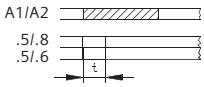
ON delay



OFF delay
with auxiliary voltage



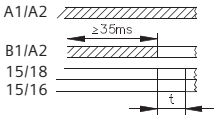
Flashing,
starting with break



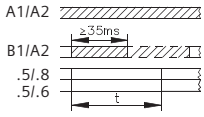
Passing make
contact function

Configuration information

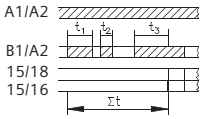
- With the "clock-pulse" function, pulse and interval can be set separately, not so with the flashing function: Ratio pulse:interval 1:1
- "Time addition" function (volatile) with the multi-function relay: through activation of the start contact



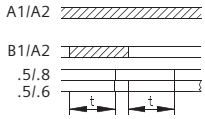
Passing break contact function
with auxiliary voltage



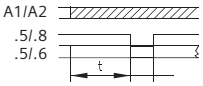
Pulse shaping
with auxiliary voltage



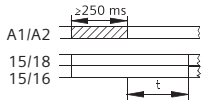
Additive ON delay
with auxiliary voltage



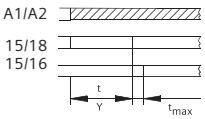
ON delay + OFF delay
with auxiliary voltage



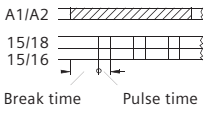
Fixed pulse
after ON delay



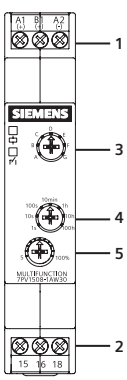
OFF delay
without auxiliary voltage

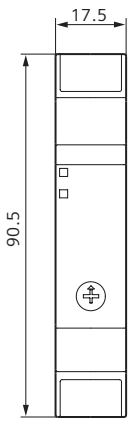


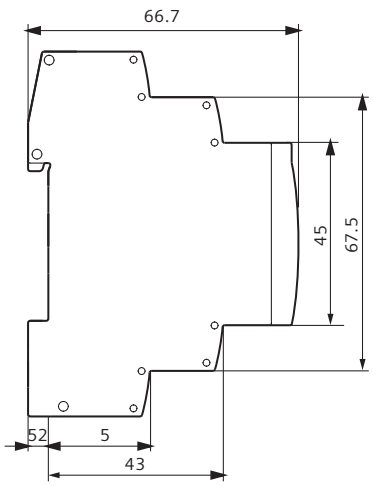
Clock generator



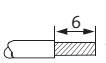
Star-delta switchover

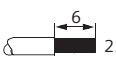






1 Coil connections*
2 Contact terminals*
3 Function selector switch
4 Time selector switch
5 Time potentiometer

*Size PZ0 max.  1.5 mm²

 2.5 mm²

All 7PV15 timing relays in this enclosure design are suitable for snap-on mounting on TH 35 DIN rails in accordance with DIN EN 60715.
The enclosure complies with DIN 43880.

SIRIUS 3RA2811/12/16 Function Modules

3RA2811/12 function modules for direct start-up for mounting on 3RT2 contactors with semiconductor output for size S00 and S0

Function	Time range	Rated control supply voltage U_s	Order No.
ON delay	0.05 s – 100 s	AC/DC 24 – 240 V	3RA2811-☐CW10
OFF delay with auxiliary voltage	0.05 s – 100 s	AC/DC 24 – 240 V	3RA2812-☐DW10

Screw terminals 1
Spring-loaded terminals 2

3RA2816 function modules for star-delta start-up

Wye-delta function	0.5 s – 60 s	AC/DC 24 – 240 V	3RA2816-0EW20

No wiring required!

3RT1916-2/26-2 electronic timing relays for mounting on 3RT1 contactors

ON delay	0,05 s – 1 s	AC/DC 24 – 66 V	3RT19☐6-2CG11
	0.5 s – 10 s		3RT19☐6-2CG21
	5 s – 100 s		3RT19☐6-2CG31
ON delay	0.05 s – 1 s	AC/DC 90 – 240 V	3RT19☐6-2CH11
	0.5 s – 10 s		3RT19☐6-2CH21
	5 s – 100 s		3RT19☐6-2CH31
OFF delay with auxiliary voltage	0.05 s – 1 s	AC/DC 24 – 66 V	3RT19☐6-2DG11
	0.5 s – 10 s		3RT19☐6-2DG21
	5 s – 100 s		3RT19☐6-2DG31
OFF delay with auxiliary voltage	0.05 s – 1 s	AC/DC 90 – 240 V	3RT19☐6-2DH11
	0.5 s – 10 s		3RT19☐6-2DH21
	5 s – 100 s		3RT19☐6-2DH31

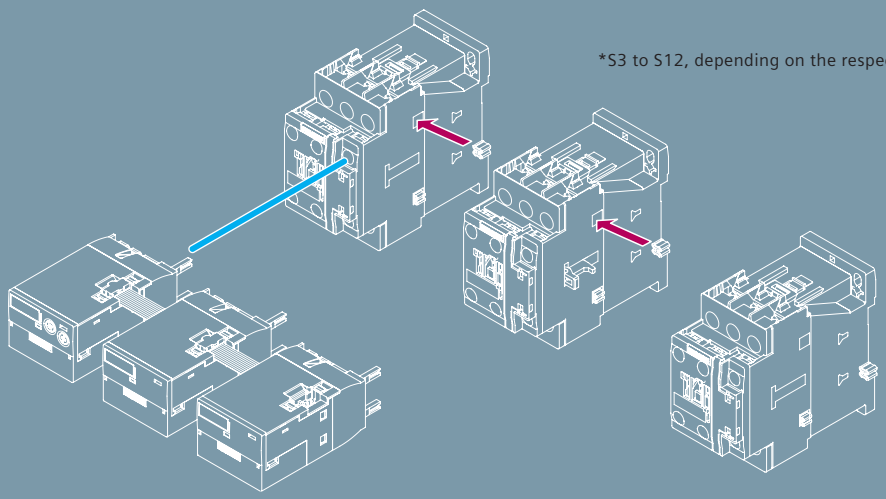
Size S00 1
Size S0 – S3 2

3RT1916-2/26-2 plug-on timing relays for star-delta start-up

Function	Time range	Rated control supply voltage U_s	Contacts	Order No.
Star-delta function	0.5 s – 30 s	AC/DC 24 V	1 NO delayed + 1 NO instantaneous	3RT19☐6-2GJ51
		AC/DC 100 – 127 V	1 NO delayed + 1 NO instantaneous	3RT19☐6-2GC51
		AC/DC 200 – 240 V	1 NO delayed + 1 NO instantaneous	3RT19☐6-2GD51

Size S00 1
Size S0 – S* 2

*S3 to S12, depending on the respective MLFB (see catalog IC 10)



SIRIUS 3RA2813/14/15 Time-Delayed Auxiliary Switches

3RA2813/14/15 electronically delayed auxiliary switches for mounting on 3RT2 contactors for size S00 and S0, integrated varistor				
Function	**Rated control supply voltage U_s**	**Time range**	**Contacts**	**Order No.**
ON delay	AC/DC 24 – 240 V	0.05 s – 100 s	1 CO	**3RA2813-☐AW10**
ON delay	AC/DC 24 – 240 V	0.05 s – 100 s	1 NO + 1 NC	**3RA2813-☐FW10**
OFF delay with auxiliary voltage	AC/DC 24 – 240 V	0.05 s – 100 s	1 CO	**3RA2814-☐AW10**
OFF delay with auxiliary voltage	AC/DC 24 – 240 V	0.05 s – 100 s	1 NO + 1 NC	**3RA2814-☐FW10**
OFF delay without auxiliary voltage	AC/DC 24 – 240 V	0.05 s – 100 s	1 CO	**3RA2815-☐AW10**
OFF delay without auxiliary voltage	AC/DC 24 – 240 V	0.05 s – 100 s	1 NO + 1 NC	**3RA2815-☐FW10**

Screw terminals 1
Spring-loaded terminals 2

3RT1916-2/26-2 electronically delayed auxiliary switches for mounting on 3RT1 contactors, integrated varistor				
ON delay	AC/DC 24 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2EJ11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2EJ21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2EJ31**
ON delay	AC/DC 100 – 127 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2EC11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2EC21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2EC31**
ON delay	AC/DC 200 – 240 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2ED11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2ED21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2ED31**
OFF delay without auxiliary voltage	AC/DC 24 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2FJ11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2FJ21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2FJ31**
OFF delay without auxiliary voltage	AC/DC 100 – 127 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2FK11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2FK21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2FK31**
OFF delay without auxiliary voltage	AC/DC 200 – 240 V	0.05 s – 1 s	1 NO + 1 NC	**3RT19☐6-2FL11**
		0.5 s – 10 s	1 NO + 1 NC	**3RT19☐6-2FL21**
		5 s – 100 s	1 NO + 1 NC	**3RT19☐6-2FL31**
OFF delay with auxiliary voltage	AC/DC 24 V	0.5 s – 10 s	1 CO	**3RT1916-2LJ51**
OFF delay with auxiliary voltage	AC/DC 100 – 127 V	0.5 s – 10 s	1 CO	**3RT1916-2LC51**
OFF delay with auxiliary voltage	AC/DC 200 – 240 V	0.5 s – 10 s	1 CO	**3RT1916-2LD51**

Size S00 1
Size S0 – S* 2

*S3 to S12, depending on the respective MLFB (see catalog IC 10)

SIRIUS 3UG4 Monitoring Relays

3UG451, 3UG461 monitoring relays for line monitoring

Phase sequence	Phase failure	Asymmetry	Hysteresis	Undervoltage	Overvoltage	N-cond. monitoring	Delay times	Contacts	Rated control-supply voltage U_s[1]	Order No.
22.5 mm width, 3UG4614 to 3UG4618 digital-adjustable, with fault memory and LC display										
Yes	Conditional[2]	–	–	–	–	–	–	1 CO	160 – 260 V[1] 320 – 500 V[1] 420 – 690 V[1]	**3UG4511-☐AN20** **3UG4511-☐AP20** **3UG4511-☐AQ20**
								2 CO	160 – 260 V[1] 320 – 500 V[1] 420 – 690 V[1]	**3UG4511-☐BN20** **3UG4511-☐BP20** **3UG4511-☐BQ20**
Yes	Yes	10 %	–	–	–	–	–	1 CO	160 – 690 V[1]	**3UG4512-☐AR20**
								2 CO	160 – 690 V[1]	**3UG4512-☐BR20**
Yes	Yes	20 %	5 %	80 % of Us	–	–	OFF delay 0.1 s – 20 s	2 CO	160 – 690 V[1]	**3UG4513-☐BR20**
Selectable	Yes	0 or 5 – 20 %	1 – 20 V	160 – 690 V	–	–	ON and OFF delay 0.1 s – 20 s	2 CO	160 – 690 V[1]	**3UG4614-☐BR20**
Selectable	Yes	Via threshold values	1 – 20 V	160 – 690 V	160 – 690 V	–	0.1 s – 20 s each for U_{min} and U_{max}	1 CO each for U_{min} and U_{max}	160 – 690 V[1]	**3UG4615-☐CR20**
Selectable	Yes	Via threshold values	1 – 20 V	90 – 400 V against N	90 – 400 V against N	Yes	0.1 s – 20 s each for U_{min} and U_{max}	1 CO each for U_{min} and U_{max}	90 – 400 V[1] against N	**3UG4616-☐CR20**
Autom. correction	Yes	0 or 5 – 20 %	1 – 20 V	160 – 690 V	160 – 690 V	–	OFF delay 0.1 s – 20 s	1 CO each for line faults and phase sequence	160 – 690 V[1]	**3UG4617-☐CR20**
Autom. correction	Yes	0 or 5 – 20 %	1 – 20 V	90 – 400 V against N	90 – 400 V against N	Yes	OFFdelay 0.1 s – 20 s	1 CO each for line faults and phase sequence	90 – 400 V[1] against N	**3UG4618-☐CR20**

3UG463 monitoring relays for single-phase voltage monitoring

Measuring range	Hysteresis	Contacts	Delay time	Rated control supply voltage U_s[1]	Order No.
22.5 mm width, all devices digital-adjustable and with LC display, connectable fault memory, simultaneous monitoring for voltage exceedance and shortfall over the entire measuring range					
AC/DC 0.1 – 60 V	0.1 – 30 V	1 CO	0.1 s – 20 s	AC/DC 24 V	**3UG4631-☐AA30**
				AC/DC 24 – 240 V	**3UG4631-☐AW30**
AC/DC 10 – 600 V	0.1 – 300 V	1 CO	0.1 s – 20 s	AC/DC 24 V	**3UG4632-☐AA30**
				AC/DC 24 – 240 V	**3UG4632-☐AW30**
AC/DC 17 – 275 V	0.1 – 150 V	1 CO	0.1 s – 20 s	Intrinsic supply	**3UG4633-☐AL30**

IO-Link

3UG4815/16 monitoring relays for line and three-phase voltage monitoring

	ON delay	Stabilization time	Tripping delay time	Hysteresis	Contacts	Adjustable monitoring range	Order No.
Monitoring for phase sequence, phase failure, phase asymmetry, overvoltage and undervoltage							
3 phases	–	0 – 999.9 s	0 – 999.9 s	Voltage: 0 – 20 V Asymmetry: 0 – 20 %	1 CO 1 Q in SIO mode	160 – 690 V[1]	**3UG4815-☐AA40**
3 phases + N-cond. failure						90 – 400 V[1] against N	**3UG4816-☐AA40**
3UG4832 monitoring relays for single-phase voltage monitoring							
Monitoring of overvoltage and undervoltage							
1 phase	–	0 – 999.9 s	0 – 999.9 s	0 – 300 V	1 CO 1 Q in SIO mode	10 – 600 V	**3UG4832-☐AA40**

[1] Absolute limit values
[2] Return voltage due to coupling of the individual phases

Screw terminals 1
Spring-loaded terminals 2

The 3UG4511 device is not able to detect phase failures reliably.
Loads connected in the three-phase network, e.g. motor windings, lamps, transformers, ensure the individual phases' connection.
Due to this network coupling, a return voltage is always present on the device terminal of the failed phase.

SIRIUS 3RR2 Monitoring Relays

3RR21 monitoring relays						
Size	**Measuring range**	**Hysteresis**	**Contacts**	**ON delay**	**Rated control supply voltage U_s**	**Order No.**
All devices analog-adjustable, closed-circuit principle, 2-phase current monitoring, apparent current monitoring, tripping delay 0 – 30 s, automatic or manual RESET						
S00	1.6 – 16 A	6.25 % of the threshold value	1 CO	0 – 60 s	AC/DC 24 V	**3RR2141-□AA30**
					AC/DC 24 – 240 V	**3RR2141-□AW30**
S0	4 – 40 A	6.25 % of the threshold value	1 CO	0 – 60 s	AC/DC 24 V	**3RR2142-□AA30**
					AC/DC 24 – 240 V	**3RR2142-□AW30**

Screw terminals 1
Spring-loaded terminals 2

3RR22 monitoring relays							
Size	**Measuring range**	**Hysteresis**	**Contacts**	**ON delay**	**Restart delay**	**Rated control supply voltage U_s**	**Order No.**
All devices digital-adjustable, LC display, open- or closed-circuit principle, 3-phase current monitoring, active current or apparent current monitoring, delay time 0 – 30 s, automatic or manual RESET, phase sequence monitoring, fault current monitoring, blocking current monitoring, separate settings for warning and alarm thresholds							
S00	1.6 – 16 A	0.1 – 3 A	1 CO 1 Q	0 – 99 s	0 – 300 min	AC/DC 24 V	**3RR2241-□FA30**
						AC/DC 24 – 240 V	**3RR2241-□FW30**
S0	4 – 40 A	0.1 – 8 A	1 CO 1 Q	0 – 99 s	0 – 300 min	AC/DC 24 V	**3RR2242-□FA30**
						AC/DC 24 – 240 V	**3RR2242-□FW30**

Screw terminals 1
Spring-loaded terminals 2

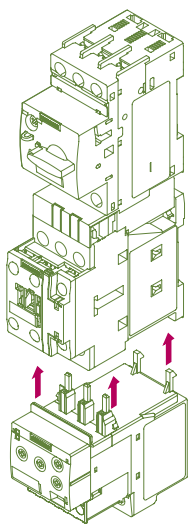
IO-Link

3RR24 monitoring relays							
Size	**Measuring range**	**Hysteresis**	**Contacts**	**ON delay**	**Restart delay**	**Rated control supply voltage U_s**	**Order No.**
All devices adjustable locally and via IO-Link, LC display, open- or closed circuit principle, 3-phase current monitoring, active current or apparent current monitoring, delay time 0 – 30 s, automatic or manual RESET, current asymmetry monitoring, phase sequence monitoring, fault current monitoring, blocking current monitoring, operating hours counter, switching cycle counter, separate settings for warning and alarm thresholds							
S00	1.6 – 16 A	0 – 3 A	1 CO 1 Q (in SIO mode)	0 – 999.9 s	0 – 999.9 min	DC 24 V	**3RR2441-□AA40**
S0	4 – 40 A	0 – 8 A	1 CO 1 Q (in SIO mode)	0 – 999.9 s	0 – 999.9 min	DC 24 V	**3RR2442-□AA40**

Screw terminals 1
Spring-loaded terminals 2

Adapter for stand-alone mounting for separate mounting of the monitoring relays on DIN rails	
Size	**Order No.**
S00	**3RU2916-3A□01**
S0	**3RU2926-3A□01**

Screw terminals 1
Spring-loaded terminals 2



SIRIUS 3UG4 Monitoring Relays

3UG4621/22 monitoring relays for single-phase current monitoring

Measuring range	Hysteresis	Contacts	Start-up delay time	Tripping delay time	Rated control supply voltage U_s [1]	Order No.
22,5 mm width, all devices digital-adjustable and with LC display, connectable fault memory, simultaneous monitoring for current exceedance and shortfall over the entire measuring range						
AC/DC 3.0 mA	0.1–250 mA	1 CO	0.1–20 s	0,1–20 s	AC/DC 24 V	**3UG4621-□AA30**
AC/DC to 500 mA					AC/DC 24–240 V	**3UG4621-□AW30**
AC/DC 0.05 A	0,01–5 A	1 CO	0.1–20 s	0.1–20 s	AC/DC 24 V	**3UG4622-□AA30**
to AC/DC 10 A					AC/DC 24–240 V	**3UG4622-□AW30**

[1] Absolute limit values

Screw terminals 1
Spring-loaded terminals 2

3UG4641 monitoring relays for power factor and active power monitoring

Measuring range for power factor	Measuring range for active current I_{res}	Hysteresis with power factor	Hysteresis with active current	Contacts	ON delay time	Tripping delay time	Rated control supply voltage U_s [1]	Order No.
22.5 mm width, device digital-adjustable and with LC display, connectable fault memory, simultaneous power factor and active current monitoring over the entire measuring range								
0.1 – 0.99 (PF)	0,2 – 10,0 A	0.1 (PF)	0.1 – 2.0 A	1 CO + 1 CO	0 – 99 s	0.1 – 20.0 s	AC 90 – 690 $V_{1)}$	**3UG4641-□CS20**

[1] Absolute limit values

Screw terminals 1
Spring-loaded terminals 2

IO-Link

3UG4822 monitoring relays for single-phase current monitoring

Start-up delay time	Tripping delay time	Hysteresis	Contacts	Adjustable monitoring range	Order No.
Monitoring for overcurrent and undercurrent, adjustable scaling factor for external 1 A / 5 A measuring transducers					
0 – 999.9 s	0 – 999.9 s	0 – 5 A	1 CO 1 Q in SIO mode	0,05 – 10 A	**3UG4822-□AA40**

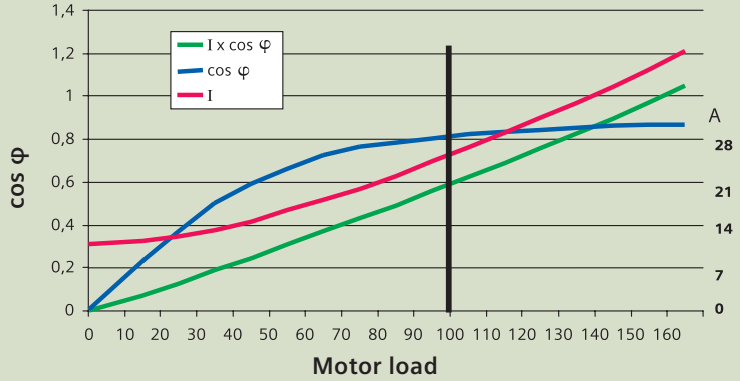
3UG4841 monitoring relays for power factor and active current monitoring

Monitoring for phase sequence, phase failure, phase asymmetry, overvoltage and undervoltage					
0 – 999.9 s	0 – 999.9 s	Power factor: 0 – 0.20 Current: 0 – 3 A	1 CO 1 Q in SIO mode	0,1 – 0.99 A 0.2 – 10 A	**3UG4841-□CA40**

Screw terminals 1
Spring-loaded terminals 2

Current and power factor in dependence of the motor load

Rule of thumb:
The power factor changes significantly below the rated load;
the current increases disproportionally above the rated load.



The active current I_{res} indicates a linear correlation between the motor load and the measured value over the entire measuring range.

SIRIUS 3UG4 Monitoring Relays

3UG4624 monitoring relays for fault current monitoring								
Display range	**Setting ranges for warning and disconnection**	**Hysteresis with limit value**	**Hysteresis with warning value**	**Contacts**	**ON delay time**	**Tripping delay time**	**Rated control supply voltage U_s [1]**	**Order No.**
22.5 mm width, digital-adjustable and with LC display, connectable fault memory, monitoring for warning threshold and limit value exceedance, for 3UL22 summation current transformers IΔn from 0.3 to 40 A								
10 to 120 % of rated converter value in A	10 to 120 % of rated converter value in A	Display accuracy up to 50 % of the rated converter value in A	5 % fixed of the rated converter value in A	1 CO + 1 CO	0.1–20.0 s	0.1–20.0 s	AC 90 – 690 V [1]	**3UG4624-□CS20**

[1] Absolute limit values

Screw terminals 1
Spring-loaded terminals 2

3UL22 summation current transformer for fault current monitoring				
Rated insulation voltage U_i	**Rated fault current $I_{\Delta n}$**	**Inlet opening diameter**	**For Protodur cable (can be passed through)**	**Order No.**
Detection of fault currents in machines and systems				
AC 690 V	0.3 A	40 mm	Max. 4 x 95 mm²	**3UL2201-1A**
	0.5 A			**3UL2201-2A**
	1 A			**3UL2201-3A**
AC 690 V	0.3 A	65 mm	Max. 4 x 240 mm²	**3UL2202-1A**
	0.5 A			**3UL2202-2A**
	1 A			**3UL2202-3A**
	6 A			**3UL2202-1B**
	10 A			**3UL2202-2B**
	16 A			**3UL2202-3B**
	25 A			**3UL2202-4B**
	40 A			**3UL2202-5B**
AC 1000 V	0.3 A	120 mm	Max. 8 x 300 mm²	**3UL2203-1A**
	0.5 A			**3UL2203-2A**
	1 A			**3UL2203-3A**
	6 A			**3UL2203-1B**
	10 A			**3UL2203-2B**
	16 A			**3UL2203-3B**
	25 A			**3UL2203-4B**
	40 A			**3UL2203-5B**

3UG458 monitoring relays for insulation monitoring in ungrounded AC networks						
Rated line voltage U_n V	**System leakage capacitance µF**	**Output relay**	**Measuring range U_e kΩ**	**Rated control supply voltage U_s**	**Cable break detection in the measuring range**	**Order No.**
AC 0 – 400 V	Max. 10	1 CO	1 – 110	AC/DC 24 – 240 V		**3UG4581-1AW30**
3UG4582 / 83 monitoring relays for ungrounded DC and AC networks						
AC 0 – 250 V	Max. 10	1 CO	1 – 110	AC/DC 24 – 240 V	Yes	**3UG4582-1AW30**
AC 0 – 400 V, DC 0 – 600 [2]	Max. 20	2 CO or 1 CO+ 1 CO adjustable	1 – 110, 2 – 200 for 2nd limit value, adjustable	AC/DC 24 – 240 V	Yes adjustable	**3UG4583-1CW30**
Series module for 3UG4583 for expansion of the line voltage range to max. 690 V AC and 1000 V DC						**3UG4983-1A**

Covers for monitoring relays for insulation monitoring		
Application	**Version**	**Order No.**
For 3UG4581, 3UG4582	Sealable, transparent cover	**3UG4981-0C**
For 3UG4583	Sealable, transparent cover	**3UG4983-0C**

[2] With 3UG49 83-1A series module also suitable for insulation monitoring of IT networks up to 690 V AC and 1000 V DC.

SIRIUS 3UG4 Monitoring Relays

3UG4501 monitoring relays for 1- and 2-point level monitoring of conductive liquids

Sensitivity	Contacts	Tripping delay time	Width	Rated control supply voltage U_s	Order No.
2–200 kΩ	1 CO	0.1–10 s	22.5 mm	AC/DC 24 V	3UG4501-☐AA30
				AC/DC 24 – 240 V	3UG4501-☐AW30

Probes for level monitoring

Description	Cable connection	Number of poles	Order No.
Wire electrode, 500 mm length, with teflon insulation, max. operating temperature 90 °C, max. operating pressure 10 bar	3 x 0.5 mm², 2 m	3-pole	3UG3207-3A
	2 x 0.5 mm², 2 m	2-pole	3UG3207-2A
Bow electrode for lateral installation, max. operating temperature 90 °C, max. operating pressure 10 bar	3 x 0.5 mm², 2 m	2-pole	3UG3207-2B
	2 x 0.5 mm², 2 m	1-pole	3UG3207-1B
Rod electrode, stable, max. operating temperature 90 °C, max. operating pressure 10 bar	2 x 0.5 mm², 2 m	1-pole	3UG3207-1C

Screw terminals 1
Spring-loaded terminals 2

3UG4651 monitoring relays for monitoring of speed shortfall and exceedance

Measuring range	Contacts	ON delay time	Tripping delay time	Width	Rated control supply voltage U_s	Order No.
Pulses / min 0.1–2200 (0.0017–36.67 Hz)	1 CO	1–900 s	0.1–99.9 s	22.5 mm	AC/DC 24 V	3UG4651-☐AA30
					AC/DC 24–240 V	3UG4651-☐AW30

Screw terminals 1
Spring-loaded terminals 2

IO-Link

3UG4851 monitoring relays for monitoring of speed shortfall and exceedance

ON delay time	Tripping delay time	Hysteresis	Contacts	Adjustable monitoring range	Order No.
Monitoring for speed exceedance and shortfall, scaling factor for consideration of multiple incremental encoders per rotation					
0 – 999.9 s	0.1–99.9 s	0 – 99.9 rpm	1 CO 1 Q with SIO mode	0.1 – 0.99 A 00.2 – 10 A	3UG4851-☐AA40

Screw terminals 1
Spring-loaded terminals 2

SIRIUS 3RN1 Thermistor Motor Protection

Thermistor motor protection relays for PTC resistors (type A)
All devices except for 24 V AC/DC feature galvanic isolation

Version	Reset	Contacts	Rated control supply voltage U_s	Order No.
Compact evaluation units, 22.5 mm width, monostable, closed-circuit principle, 1 LED				
Terminal A1 is bridged with the root of the CO contact	Automatic	1 CO	AC/DC 24 V	**3RN1000-□AB00**
			AC 110 V	**3RN1000-□AG00**
			AC 230 V	**3RN1000-□AM00**
Standard evaluation units, 22.5 mm width, monostable, closed-circuit principle, 2 LEDs				
	Automatic	1 NO + 1 NC	AC/DC 24 V	**3RN1010-□CB00**
			AC 110 V	**3RN1010-□CG00**
			AC 230 V	**3RN1010-□CM00**
			AC/DC 24 – 240 V	**3RN1010-□CW00**
		2 CO	AC/DC 24 V	**3RN1010-□BB00**
			AC 110 V	**3RN1010-□BG00**
			AC 230 V	**3RN1010-□BM00**
		2 CO hard gold-plated	AC/DC 24 V	**3RN1010-□GB00**
	Manual/remote[3]	1 NO + 1 NC	AC/DC 24 V	**3RN1011-□CB00**
			AC 110 / 230 V	**3RN1011-□CK00**
Short-circuit detection in the sensor circuit	Manual/remote[3] Remote	2 CO	AC/DC 24 V	**3RN1011-□BB00**
			AC 110 V	**3RN1011-□BG00**
			AC 230 V	**3RN1011-□GB00**
		2 CO hard gold-plated	AC/DC 24 V	**3RN1011-□CB00**
Non-volatile[2]	Manual/automatic/ remote	1 NO + 1 NC	AC/DC 24 V	**3RN1012-□CB00**
			AC 110 / 230 V	**3RN1012-□CK00**
Non-volatile[2] Short-circuit detection in the sensor circuit	Manual/automatic/ remote	2 CO	24 V AC/DC	**3RN1012-□BB00**
			AC 110 V	**3RN1012-□BG00**
			AC 230 V	**3RN1012-□BM00**
		2 CO hard gold-plated	AC/DC 24 V	**3RN1012-□GB00**
Non-volatile[2], detection and indication of short circuit and wire breakage in the sensor circuit, wide voltage with screw terminals with safe isolation[1]	Manual/automatic/ remote	2 CO	AC/DC 24 V	**3RN1013-□BB00**
			AC/DC 24 – 240 V	**3RN1013-1BW10**
				3RN1013-2BW00
		2 CO hard gold-plated	AC/DC 24 – 240 V	**3RN1013-1GW10**
				3RN1013-2GW00
For bimetal sensors (without short-circuit detection)	Manual/remote	2 CO	AC 230 V	**3RN1014-1BM00**
Evaluation units for 2 sensor circuits, warning and disconnection, 22.5 mm width, monostable, closed-circuit principle, 3 LEDs				
Test/reset button, non-volatile[2]; the evaluation circuit for "warning" operates with the NO contact in open-circuit principle	Manual/automatic/ remote	1 NO + 1 NC	AC/DC 24 – 240 V	**3RN1022-□DW00**
Evaluation units for 6 sensor circuits, multi-motor protection, 45 mm width, monostable, closed-circuit principle, 8 LEDs				
Test/reset button, non-volatile[2]	Manual/automatic/ remote	1 NO + 1 NC	AC/DC 24 – 240 V	**3RN1062-□CW00**
Bistable evaluation units, 22.5 mm width				
Test/reset button, non-volatile[2], detection and indication of short circuit and wire breakage in the sensor circuit, bistable version, no tripping in case of control supply voltage failure	Manual/automatic/ remote	2 CO	AC/DC 24 – 240 V	**3RN1013-□BW01**

[1] Safe isolation up to 300 V in accordance with DIN/VDE 0106
[2] For information on non-volatile operating principle, refer to catalog IC 10
[3] Reset via reset button or interruption of the control supply voltage

Screw terminals 1
Spring-loaded terminals 2

3RS10/3RS11 temperature monitoring relays

Sensor	Function	Measuring range	Rated control supply voltage U_s	Order No.
Analog-adjustable, 1 threshold value, 22.5 mm width, analog closed-circuit principle, no storage function, 1 NO + 1 CO				
PT100 (resistance sensor)	Overshoot	– 50 ... + 50 °C	AC/DC 24 V	**3RS10 00-□CD00**
			AC 110/230 V	**3RS10 00-□CK00**
		0 ... + 100 °C	AC/DC 24 V	**3RS10 00-□CD10**
			AC 110/230 V	**3RS10 00-□CK10**
		0 ... + 200 °C	AC/DC 24 V	**3RS10 00-□CD20**
			AC 110/230 V	**3RS10 00-□CK20**
	Undershoot	–50 ... +50 °C	AC/DC 24 V	**3RS10 10-1CD00**
			AC 110/230 V	**3RS10 10-1CK00**
		0 ... + 100 °C	AC/DC 24 V	**3RS10 10-1CD10**
			AC 110/230 V	**3RS10 10-1CK10**
		0 ... + 200 °C	AC/DC 24 V	**3RS10 10-1CD20**
			AC 110/230 V	**3RS10 10-1CK20**
Type J (thermocouple)	Overshoot	0 ... + 200 °C	AC/DC 24 V	**3RS11 00-□CD20**
			AC 110/230 V	**3RS11 00-1CK20**
		0 ... + 600 °C	AC/DC 24 V	**3RS11 00-1CD30**
			AC 110/230 V	**3RS11 01-1CK30**
Type K (thermocouple)	Overshoot	0 ... + 200 °C	AC/DC 24 V	**3RS11 01-□CD20**
			AC 110/230 V	**3RS11 01-1CK20**
		0 ... + 600 °C	AC/DC 24 V	**3RS11 01-1CD30**
			AC 110/230 V	**3RS11 01-1CK30**
		+ 500 ... + 1000 °C	AC/DC 24 V	**3RS11 01-1CD40**
			AC 110/230 V	**3RS11 01-1CK40**
Analog-adjustable for warning and disconnection 2 threshold values), 22.5 mm width; selectable open-/closed-circuit principle; no storage function; 1 NO + 1 CO				
PT100 (resistance sensor)	Overshoot	– 50 ... + 50 °C	AC/DC 24 V	**3RS10 20-1DD00**
			AC/DC 24 – 240 V	**3RS10 20-1DW00**
		0 ... + 100 °C	AC/DC 24 V	**3RS10 20-1DD10**
			AC/DC 24 – 240 V	**3RS10 20-1DW10**
		0 ... + 200 °C	AC/DC 24 V	**3RS10 20-1DD20**
			AC/DC 24 – 240 V	**3RS10 20-□DW20**
	Undershoot	– 50 ... + 50 °C	AC/DC 24 V	**3RS10 30-1DD00**
			AC/DC 24 – 240 V	**3RS10 30-1DW00**
		0 ... + 100 °C	AC/DC 24 V	**3RS10 30-1DD10**
			AC/DC 24 – 240 V	**3RS10 30-1DW10**
		0 ... + 200 °C	AC/DC 24 V	**3RS10 30-□DD20**
			AC/DC 24 – 240 V	**3RS10 30-1DW20**
Type J (thermocouple)	Overshoot	0 ... + 200 °C	AC/DC 24 V	**3RS11 20-□DD20**
			AC/DC 24 – 240 V	**3RS11 20-1DW20**
		0 ... + 600 °C	AC/DC 24 V	**3RS11 20-1DD30**
			AC/DC 24 – 240 V	**3RS11 20-1DW30**
Type K (thermocouple)	Overshoot	0 ... + 200 °C	AC/DC 24 V	**3RS11 21-1DW20**
		0 ... 600 °C	AC/DC 24–240 V	**3RS11 21-1DW30**
		+ 500 ... + 1000 °C	AC/DC 24 V	**3RS11 21-1DD40**
			AC/DC 24 – 240 V	**3RS11 21-1DW40**

Analog-adjustable evaluation units with one and two threshold values. With analog-adjustable devices, the threshold values and the hysteresis from 2 to 20% are set via a rotary potentiometer.

For devices with 2 threshold values, the selectable hysteresis only acts on threshold value 1. For the second threshold value, the hysteresis is permanently set to 5%. This product range was developed for applications for which a setting accuracy of ± 5% is sufficient

Screw terminals 1
Spring-loaded terminals 2

Suitable sensors are available via **www.siemens.com/temperature**

SIRIUS 3RS10/11/20/21 and 3RS14/15 Temperature Monitoring Relays

3RS10/11 and 3RS20/21 temperature monitoring relays			
Sensor	**Measuring range (measuring range limit is sensor-dependent)**	**Rated control supply voltage U_s AC 50 – 60 Hz**	**Order NO.**
Digital-adjustable, 2 threshold values, 45 mm width: 1 CO + 1 CO + 1 NO, storage function possible via external bridge; device parameters are non-volatile			
PT100/1000; KTY83/84; NTC (resistance sensor)[1]	–50…+500 °C	AC/DC 24 V	**3RS10 40-☐GD50**
		AC/DC 24 – 240 V	**3RS10 40-☐GW50**
	–58…+932 °F	AC/DC 24 V	**3RS20 40-☐GD50**
		AC/DC 24 – 240 V	**3RS20 40-☐GW50**
Type J, K, T, E, N (thermocouple)	–99…+999 °C	AC/DC 24 V	**3RS11 40-☐GD60**
		AC/DC 24 – 240 V	**3RS11 40-☐GW60**
	–99…+1830 °F	AC/DC 24 V	**3RS21 40-☐GD60**
		AC/DC 24 – 240 V	**3RS21 40-☐GW60**
Digital-adjustable, 2 threshold values, 45 mm width; 1 CO + 1 CO + 1 NO, tripping state and device parameters are non-volatile			
PT100/1000; KTY83/84; NTC (resistance sensor)[1]	–50…+750 °C	AC/DC 24 V	**3RS10 42-☐GD70**
		AC/DC 24 – 240 V	**3RS10 42-☐GW70**
Type J, K, T, E, N, R, S, B (thermocouple)	–99…+1800 °C	AC/DC 24 V	**3RS11 42-☐GD80**
		AC/DC 24 – 240 V	**3RS11 42-☐GW80**

Motor monitoring relays, digital-adjustable for up to 3 sensors, 45 mm width; 1 CO + 1 CO + 1 NO				
Sensor	**Number of sensors**	**Measuring range**	**Rated control supply voltage U_s**	**Order No.**
PT100/1000; KTY83/84; NTC (resistance sensor)[1]	1 to 3 sensors	–50…+500 °C –58…+932 °F	AC/DC 24 – 240 V AC/DC 24 – 240 V	**3RS10 41-☐GW50** **3RS20 41-☐GW50**

[1] NTC type: B57227-K333-A1 (100 °C: 1,8 kΩ; 25 °C: 32,762 kΩ)

Screw terminals 1
Spring-loaded terminals 2

IO-Link

3RS14/15 temperature monitoring relays							
		ON delay time	**Tripping delay time**	**Hysteresis**	**Contacts**	**Adjustable monitoring range**	**Order No.**
Monitoring of temperature overshoot or undershoot							
1 resistance sensor	PT100/1000 KTY83/84 NTC[2]	0…999.9 s	0…999.9 s	0…99 K	3 CO	–50…+750 °C / –58…+1382 °F	**3RS1440-☐HB50**
Up to 3 resistance sensors							**3RS1441-☐HB50**
1 thermocouple	Type J, K, T, E, N, S, R, B					–99…+1800 °C / –146.2…+1382 °F	**3RS1540-☐HB80**

Screw terminals 1
Spring-loaded terminals 2

Short-circuit and wire breakage detection as well as the measuring range are restricted, depending on the sensor type:

Measuring ranges in °C for thermocouples				
Sensor type	**Short circuit**	**Wire breakage**	**3RS11 40 measuring range**	**3RS11 42 measuring range**
J	–	✓	–99…999	–99…1200
K	–	✓	–99…999	–99…1350
T	–	✓	–99…999	–99…400
E	–	✓	–99…999	–99…999
N	–	✓	–99…999	–99…999
S	–	✓	–	0…1750
R	–	✓	–	0…1750
B	–	✓	–	400…1800

Measuring ranges in °C for resistance sensors				
Sensor type	**Short circuit**	**Wire breakage**	**3RS11 40 measuring range**	**3RS11 42 measuring range**
PT100	✓	✓	–50…500	–50…750
PT1000	✓	✓	–50…500	–50…500
KTY83-110	✓	✓	–50…175	–50…175
KTY84	✓	✓	–40…300	–40…300
NTC[1]	✓	–	80…160	80…160

[1] NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ)

SIRIUS 3TX700/701 Coupling Relays

3TX7002/03 coupling relays – for small line distances or flat control cabinets

Output couplers with relay output (compact enclosure)

Output	Rated control supply voltage U_s	W x H x D in mm	Hard gold plating		Order No.
1 NO	AC/DC 24 V	11.5 x 60 x 62	–		3TX700□-1AB00
		11.5 x 60 x 62	Yes		3TX7002-1AB02
1 CO	AC/DC 24 V	17.5 x 60 x 62	–		3TX700□-1BB00
	230 V AC/DC	17.5 x 60 x 62	–		3TX7002-1BF00
2 NO	AC/DC 24 V	22.5 x 60 x 62	–		3TX700□-1CB00
2 CO	AC/DC 24 V	22.5 x 60 x 62	Yes		3TX7002-1FB02

Input couplers with relay output (compact enclosure)

1 NO	230 V AC/DC	11.5 x 60 x 62	–		3TX700□-2AF00
	230 V AC/DC	11.5 x 60 x 62	–		3TX7002-2AF05
	AC/DC 110 V	11.5 x 60 x 62	–		3TX7002-2AE00
	AC/DC 24 V	11.5 x 60 x 62	–		3TX7002-2AB00
1 CO	230 V AC/DC	17.5 x 60 x 62	Yes		3TX7002-2BF02

Accessories

Connection cable with 24 clamping points for 3TX70	3TX7004-8BA00
Connection comb with 24 clamping points for 3TX7004 with 6.2 mm width and screw terminals	3TX7004-8AA00

Screw terminals 2
Spring-loaded terminals 3

3TX700 coupling relays with relay output, not pluggable

Output couplers with relay output (6.2 mm width)

Contacts	Rated control supply voltage U_s	W x H x D in mm[1]	Hard gold plating	M-0-A switch	Order No.
1 CO	AC/DC 24 V	6,2 x 80 x 84	–	–	3TX700□-1LB00
			Yes	–	3TX700□-1LB02
		12.5 x 80 x 84	–	Yes	3TX7004-1BB10
	AC/DC 110 V	6.2 x 80 x 84	–	–	3TX7005-1LN00
	230 V AC/DC	6.2 x 80 x 84	–	–	3TX700□-1LF00
		12.5 x 80 x 84	–	–	3TX7004-1BF05[2]
1 NO	AC/DC 24 V	6.2 x 80 x 84	–	–	3TX700□-1MB00
	230 V AC/DC	6.2 x 80 x 84	–	–	3TX700□-1MF00

3TX7004/05 – input couplers with relay output (6.2 mm width)

1 NO	230 V AC/DC	6.2 x 80 x 84	Yes	–	3TX700□-2MF02
	AC/DC 110 V	6.2 x 80 x 84	Yes	–	3TX7004-2ME02
	AC/DC 24 V	6.2 x 80 x 84	Yes	–	3TX700□-2MB02

[1] With 3TX7004 (screw terminals), the height amounts to 79 mm
[2] For long cable lengths up to 350 m

Screw terminals 2
Spring-loaded terminals 3

3TX701 coupling relays with relay output, pluggable

Coupling relays with plug-in relays (6,2 mm width)

Contacts	Rated control supply voltage U_s	W x H x D in mm	Hard gold plating	M-0-A switch	Order No.
1 NO	DC 24 V	6.2 x 89.5 x 92	–	–	3TX701□-1AM00
1 CO	DC 24 V	6.2 x 89.5 x 92	–	–	3TX701□-1BM00
	AC/DC 24 V	6.2 x 89.5 x 92	–	–	3TX701□-1BB00
	115 V AC/DC	6.2 x 89.5 x 92	–	–	3TX701□-1BE00
	230 V AC/DC	6.2 x 89.5 x 92	–	–	3TX701□-1BF00

Coupling relays with plug-in relays (6.2 mm width)

1 CO	DC 24 V	6.2 x 89.5 x 92	Yes	–	3TX701□-1BM02
	AC/DC 24 V	6.2 x 89.5 x 92	Yes	–	3TX701□-1BB02
	115 V AC/DC	6.2 x 89.5 x 92	Yes	–	3TX701□-1BE02
	230 V AC/DC	6.2 x 89.5 x 92	Yes	–	3TX701□-1BF02

Accessories

Wiring comb 16-pole for 3TX7014 and 3TX7015 plug-in base couplers	3TX7014-7AA00
Potential barrier for 3TX70 plug-in base couplers	3TX7014-7CE00

Configuration information
When selecting the coupling links, the maximum permissible cable length has to be observed with rated control supply voltages of 110 V AC and 230 V AC. The special 3TX700-...05 type can be used for longer cables.

Screw terminals 4
Spring-loaded terminals 5

SIRIUS 3TX700 Coupling Relays

3TX700 coupling relays with semiconductor output, not pluggable							
Output couplers with semiconductor output – in narrow, space-saving design, 1 NO contact (6.2 mm width)							
Rated control supply voltage U_s	Wx H x D in mm[1)]	Switching current max.	Switching voltage	Min. load current	Short-time load carrying capacity	M-0-A switch	Order No.
DC 24 V	6.2 x 80 x 84	0.5 A	≤ DC 48 V	–	1.5 A/20 ms	–	3TX700☐-3AB04
	6.2 x 80 x 84	1.5 A	≤ DC 30 V	–	Short-circuit-pr.	–	3TX700☐-3PB54
	6.2 x 80 x 84	3 A	≤ DC 30 V	–	Short-circuit-pr.	–	3TX700☐-3PB74
	12.5 x 80 x 84	5 A	≤ DC 30 V	0.5 A	Short-circuit-pr.	–	3TX700☐-3AC04
	12.5 x 80 x 84	5 A	≤ DC 30 V	0.5 A	Short-circuit-pr.	Yes	3TX700☐-3AC14
	12.5 x 80 x 84	2 A	AC 24 – 250 V	0.05 A	100 A/20 ms	–	3TX700☐-3AC03
AC 110–230 V	6.2 x 80 x 84	3 A	≤ DC 30 V		Short-circuit-pr.	–	3TX700☐-3PG74
Input couplers with semiconductor output, 1 NO contact (6.2 mm width)							
AC/DC 110–230 V	6.2 x 80 x 84	0.1 A	≤ DC 30 V	–	0.2 A / 3 ms	–	3TX700☐-4PG24

[1)] With 3TX7004 (screw terminals), the height amounts to 79 mm

Screw terminals 4
Spring-loaded terminals 5

3TX7002 coupling relays with semiconductor output, not pluggable						
Output couplers with semiconductor output – for low line heights, 1 NO contact, screw terminals (6.2 mm width)						
Rated control supply voltage U_s	W x H x D in mm[1)]	Switching current max.	Switching voltage	Min. load current	Short-time load carrying capacity	Order No.
DC 24 V	12.5 x 60 x 62	1.8 A	AC 48 – 264 V	0.06 A	20 A/20 ms	3TX7002-3AB00
DC 24 V	11.5 x 60 x 62	1.5 A	≤ DC 60 V	–	4 A/0.2 ms	3TX7002-3AB01
Input couplers with semiconductor output, 1 NO contact (6.2 mm width)						
AC/DC 24 V	12.5 x 60 x 62	0.1 A	≤ DC 30 V	–	1 A/20 ms	3TX7002-4AB00
AC 110 – 240 V	12.5 x 60 x 62	0.1 A	≤ DC 60 V	–	1 A/20 ms	3TX7002-4AG00
Accessories						
Connection cable with 24 clamping points for 3TX70						3TX7004-8BA00
Connection comb with 24 clamping points for 3TX7004 with 6.2 mm width and screw terminals						3TX7004-8AA00

3RS18 coupling relays		
Rated control supply voltage U_s 50/60Hz	Contact version	Order No.
Wide voltage AC/DC 24 – 240 V	2 CO	3RS18 00-☐BW00
	3 CO	3RS18 00-☐HW00
	3 CO hard gold-plated	3RS18 00-☐HW01
Combined voltage AC/DC 24 V and AC 110 – 120 V	1 CO	3RS18 00-☐AQ00
	2 CO	3RS18 00-☐BQ00
	3 CO	3RS18 00-☐HQ00
	3 CO hard gold-plated	3RS18 00-☐HQ01
AC/DC 24 V and AC 220 – 240 V	1 CO	3RS18 00-☐AP00
	2 CO	3RS18 00-☐BP00
	3 CO	3RS18 00-☐HP00
	3 CO hard gold-plated	3RS18 00-☐HP01

Screw terminals 1
Spring-loaded terminals 2

SIRIUS LZS Coupling Relays

LZS coupling relays with plug-in relays – for low line heights		
Output couplers		
Switching capacity of LZX plug-in relays	AC-15, 230 V	DC-13, 24 V
RT 1 CO	6 A	2 A
RT 2 CO	3 A	2 A
PT 2 CO	5 A	5 A
PT 3 CO	5 A	5 A
PT 4 CO	4 A	5 A
MT 3 CO	5 A	2 A

Logical isolation:
The connections of the contacts and the connections of the coil are arranged on different sides, e.g. contacts on the top and coils on the bottom. This allows for a clearer wiring arrangement. The logical isolation is not necessarily a safe isolation.

Safe isolation
The safe isolation is the isolation which prevents the passover of a circuit's voltage to another circuit with sufficient safety (DIN VDE 106 Part 101).

Coupling relays with plug-in relays – LZS complete modules (base, plug-in relay, hold/eject clip, LED module and inscription plate)

Versions	Rated control supply voltage U_s	Contacts	Order No. [1]
Complete devices, 8-, 11- and 14-pole, PT range (28 mm width)			
Complete device with plug-in base (screw terminals, standard) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay, standard plug-in base with screw terminals, LED module (24 V DC LED module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	2 CO	**LZS:PT2D5L24**
	AC 230 V	2 CO	**LZS:PT2D5T30**
	DC 24 V	3 CO	**LZS:PT3A5L24**
	AC 24 V		**LZS:PT3A5R24**
	AC 115 V		**LZS:PT3A5S15**
	AC 230 V		**LZS:PT3A5T30**
	DC 24 V	4 CO	**LZS:PT5A5L24**
	AC 24 V		**LZS:PT5A5R24**
	AC 115 V		**LZS:PT5A5S15**
	AC 230 V		**LZS:PT5A5T30**
Complete device with plug-in base (screw terminals, logical isolation) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay, plug-in base with screw terminals and logical isolation, LED module (24 V DC LED module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	4 CO	**LZS:PT5B5L24**
	AC 24 V		**LZS:PT5B5R24**
	AC 115 V		**LZS:PT5B5S15**
	AC 230 V		**LZS:PT5B5T30**
Complete device with plug-in base (push-in spring-loaded terminals, logical isolation) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay, plug-in base with spring-loaded terminals and logical isolation, LED module (24 V DC LED module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	4 CO	**LZS:PT5D5L24**
	AC 24 V		**LZS:PT5D5R24**
	AC 115 V		**LZS:PT5D5S15**
	AC 230 V		**LZS:PT5D5T30**
Complete devices, 8-pole, 5 mm pinning, RT range (15.5 mm width)			
Complete device with plug-in base (screw terminals, standard) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay, standard plug-in base with screw terminals, LED module (24 V DC LED module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	1 CO	**LZS:RT3A4L24**
	DC 24 V	2 CO	**LZS:RT4A4L24**
	AC 230 V	1 CO	**LZS:RT3A4T30**
	AC 230 V	2 CO	**LZS:RT4A4T30**
	AC 24 V	1 CO	**LZS:RT3A4R24**
	AC 24 V	2 CO	**LZS:RT4A4R24**
	AC 115 V	1 CO	**LZS:RT3A4S15**
	AC 115 V	2 CO	**LZS:RT4A4S15**
Complete device with plug-in base (screw terminals, logical isolation) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay with safe isolation, plug-in base with screw terminals and logical isolation, LED module (24 V DC module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	1 CO	**LZS:RT3B4L24**
	DC 24 V	2 CO	**LZS:RT4B4L24**
	AC 230 V	1 CO	**LZS:RT3B4T30**
	AC 230 V	2 CO	**LZS:RT4B4T30**
	AC 24 V	1 CO	**LZS:RT3B4R24**
	AC 24 V	2 CO	**LZS:RT4B4R24**
	AC 115 V	1 CO	**LZS:RT3B4S15**
	AC 115 V	2 CO	**LZS:RT4B4S15**
Complete device with plug-in base (Push-in spring-loaded terminals, logical isolation) for snap-on mounting on 35 mm DIN rail, consisting of: plug-in relay, plug-in base with spring-loaded terminals and logical isolation, LED module (24 V DC LED module with free-wheeling diode, AC without free-wheeling diode), hold/eject clip and inscription plate	DC 24 V	1 CO	**LZS:RT3D4L24**
	DC 24 V	2 CO	**LZS:RT4D4L24**
	AC 230 V	1 CO	**LZS:RT3D4T30**
	AC 230 V	2 CO	**LZS:RT4D4T30**
	AC 24 V	1 CO	**LZS:RT3D4R24**
	AC 24 V	2 CO	**LZS:RT4D4R24**
	AC 115 V	1 CO	**LZS:RT3D4S15**
	AC 115 V	2 CO	**LZS:RT4D4S15**

Coupling relays with plug-in relays – individual modules for self-assembly (LZX)

RT range

Plug-in relays

Rated control supply voltage U_s	Contacts	LED	Free-wheeling diode	Logical isolation	Hard gold plating	Order No.
DC 12 V	2	–	–	–	–	**LZX:RT424012**
DC 24 V	1 CO	–	–	–	–	**LZX:RT314024**
DC 24 V	2 CO	–	–	–	–	**LZX:RT424024**
AC 24 V	1 CO	–	–	–	–	**LZX:RT424524**
AC 24 V	2 CO	–	–	–	–	**LZX:RT424524**
AC 115 V	1 CO	–	–	–	–	**LZX:RT314615**
AC 115 V	2 CO	–	–	–	–	**LZX:RT424615**
AC 230 V	1 CO	–	–	–	–	**LZX:RT314730**
AC 230 V	2 CO	–	–	–	–	**LZX:RT424730**
DC 24 V	1 CO	–	–	–	Yes	**LZX:RT315024**
AC 230 V	1 CO	–	–	–	Yes	**LZX:RT315730**

Accessories, suitable for 1 and 2 CO		
Plug-in base with screw terminals for DIN rail mounting	No logical isolation (standard)	LZS:RT78725
	Logical isolation	LZS:RT78726
Plug-in base with push-in spring-loaded terminals for DIN rail mounting	Logical isolation	LZS:RT7872P
Hold/eject clip	–	LZS:RT17016
Inscription plate		LZS:RT17040
Wiring bracket for push-in spring-loaded terminal base	2-pole	LZS:RT170P1
Wiring comb for screw terminal base	8-pole	LZS:RT170R8

PT range

Plug-in relays

Rated control supply voltage U_s	Contacts	LED	Free-wheeling diode	Hard gold plating	Test bracket	Order No.
DC 24 V	2 CO	–	–	–	Yes	LZX:PT270024
DC 24 V	3 CO	–	–	–	Yes	LZX:PT370024
DC 24 V	4 CO	–	–	–	Yes	LZX:PT570024
DC 24 V	4 CO	–	–	–	–	LZX:PT520024
DC 24 V	4 CO	–	–	Yes	Yes	LZX:PT580024
AC 24 V	2 CO	–	–	–	Yes	LZX:PT270524
AC 24 V	3 CO	–	–	–	Yes	LZX:PT370524
AC 24 V	4 CO	–	–	–	Yes	LZX:PT570524
AC 115 V	2 CO	–	–	–	Yes	LZX:PT270615
AC 115 V	3 CO	–	–	–	Yes	LZX:PT370615
AC 115 V	4 CO	–	–	–	Yes	LZX:PT570615
AC 230 V	2 CO	–	–	–	Yes	LZX:PT270730
AC 230 V	3 CO	–	–	–	Yes	LZX:PT370730
AC 230 V	4 CO	–	–	–	Yes	LZX:PT570730
AC 230 V	4 CO	–	–	Yes	Yes	LZX:PT580730
AC 230 V	4 CO	–	–	–	–	LZX:PT520730

Accessories			
Plug-in base with screw terminals for DIN rail mounting	2 CO	Logical isolation	LZS:PT78720
	3 CO		LZS:PT78730
	4 CO		LZS:PT78740
	2 CO	Logical isolation	LZS:PT78722
	4 CO		LZS:PT78742
Plug-in base with push-in spring-loaded terminals for DIN rail mounting	2 CO	Logical isolation	LZS:PT7872P
	4 CO		LZS:PT7874P
Hold/eject clip	2/3/4 CO	Logical isolation	LZS:PT17021
Hold/eject clip for screw terminal base	2/3/4 CO	No logical isolation	LZS:PT17024
Inscription plate			LZS:PT17040
Wiring bracket for push-in spring-loaded terminal base	2-pole		LZS:PT170P1
Wiring comb for screw terminal base	6-pole		LZS:PT170R6

Accessories for RT and PT range				
LED module red	Control supply voltage	DC 24 V	Free-wheeling diode	LZS:PTML0024
		AC/DC 24 V	–	LZS:PTML0524
		AC 110 – 230 V	–	LZS:PTML0730
LED module green		DC 24 V	Free-wheeling diode	LZS:PTMG0024
		AC/DC 24 V	–	LZS:PTMG0524
		AC 110 – 230 V	–	LZS:PTMG0730
Free-wheeling diode		DC 6 – 230 V	Free-wheeling diode	LZS:PTMT00A0
RC link		AC 24 – 48 V	–	LZS:PTMU0524
		AC 110 – 230 V	–	LZS:PTMU0730

MT range

Plug-in relays

Rated control supply voltage U_s	Contacts	LED	Free-wheeling diode	Order No.
DC 24 V	3 CO	–	–	LZX:MT321024
DC 24 V	3 CO	Yes	–	LZX:MT323024
AC 24 V	3 CO	–	–	LZX:MT326024
AC 24 V	3 CO	Yes	–	LZX:MT328024
AC 115 V	3 CO	–	–	LZX:MT326115
AC 115 V	3 CO	Yes	–	LZX:MT328115
AC 230 V	3 CO	–	–	LZX:MT326230
AC 230 V	3 CO	Yes	–	LZX:MT328230
Accessories				
Plug-in base with screw terminals for DIN rail mounting, 11-pole				LZS:MT78750
Hold clip				LZS:MT28800

SIRIUS 3RS17 Interface Converters

Input	Output	Width	M-A switch	Rated control supply voltage U_s	Galvanic isolation	Order No.
3RS17, interface converters, 2-way isolation						
0 – 10 V	0 – 10 V	6.2 mm	–	AC/DC 24 V	2-way	3RS1700-☐AD00
0 – 10 V	0 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1700-☐CD00
0 – 10 V	4 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1700-☐DD00
0 – 20 mA	0 – 10 V	6.2 mm	–	AC/DC 24 V	2-way	3RS1702-☐AD00
0 – 20 mA	0 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1702-☐CD00
0 – 20 mA	4 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1702-☐DD00
4 – 20 mA	0 – 10 V	6.2 mm	–	AC/DC 24 V	2-way	3RS1703-☐AD00
4 – 20 mA	0 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1703-☐CD00
4 – 20 mA	4 – 20 mA	6.2 mm	–	AC/DC 24 V	2-way	3RS1703-☐DD00
0 – 20 mA	0 – 20 mA	6.2 mm	–	Passive converter	2-way	3RS1720-☐ET00
0 – 20 mA	0 – 20 mA	12.5 mm	–	Passive converter	2-way	3RS1721-☐ET00
2 x 0 – 20 mA	2 x 0 – 20 mA	12.5 mm	–	Passive converter	2-way	3RS1722-☐ET00
3RS17 interface converters, individual function, 3-way isolation						
0 – 10 V	0 – 10 V	6.2 mm	–	AC/DC 24 V	3-way	3RS1700-☐AE00
0 – 10 V	0 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1700-☐CE00
0 – 10 V	4 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1700-☐DE00
0 – 20 mA	0 – 10 V	6.2 mm	–	AC/DC 24 V	3-way	3RS1702-☐AE00
0 – 20 mA	0 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1702-☐CE00
0 – 20 mA	4 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1702-☐DE00
4 – 20 mA	0 – 10 V	6.2 mm	–	AC/DC 24 V	3-way	3RS1703-☐AE00
4 – 20 mA	0 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1703-☐CE00
4 – 20 mA	4 – 20 mA	6.2 mm	–	AC/DC 24 V	3-way	3RS1703-☐DE00
Adjustable standard signal converters						
0 – 10 V 0/4 – 20 mA adjustable	0 – 10 V 0/4 – 20 mA adjustable	6.2 mm	–	AC/DC 24 V	2-way	3RS1705-☐FD00
		6.2 mm	–	AC/DC 24 V	3-way	3RS1705-☐FE00
		17.5 mm	–	AC/DC 24 – 240 V	3-way	3RS1705-☐FW00
0 – 10 V 0/4 – 20 mA adjustable	0 – 10 V 0/4 – 20 mA adjustable	17.5 mm	Yes	AC/DC 24 V	2-way	3RS1725-☐FD00
		17.5 mm	Yes	AC/DC 24 – 240 V	3-way	3RS1725-☐FW00
0 – 10 V 0/4 – 20 mA adjustable	0 – 50 V 0 – 100 V 0 – 1 kHz 0 – 10 Hz adjustable	6.2 mm	–	AC/DC 24 V	2-way	3RS1705-☐KD00
		17,5 mm	–	AC/DC 24 – 240 V	3-way	3RS1705-☐KW00
Universal converters						
0 – 60 mV 0 – 100 mV 0 – 300 mV 0 – 500 mV 0 – 1 V 0 – 2 V 0 – 5 V 0 – 10 V 0 – 20 V 2 – 10 V 0 – 5 mA 0 – 10 mA 0 – 20 mA 4 – 20 mA ± 5 mA ± 20 mA	0 – 10 V 0/4 – 20 mA adjustable	17.5 mm	–	AC/DC 24 V	2-way	3RS1706-☐FD00
				AC/DC 24 V	3-way	3RS1706-☐FE00
				AC/DC 24 – 240 V	3-way	3RS1706-☐FW00

Screw terminals 1
Spring-loaded terminals 2

SIRIUS 3TG10 Power Relays

3TG10 power relays							
AC-1 operating current I_e with 400 V (A)	AC-1 power of three-phase loads with 50 Hz 400 V (kW)	AC-2 and AC-3 operating current with 400 V (A)	AC-2 and AC-3 three-phase loads with 50 Hz 400 V (kw)	Contacts	Connection system	Rated control supply voltage U_s	Order No.
20	13	8.4	4	3 NO + 1 NC	**Screw terminals**	AC 24 V	**3TG1001-0AC2**
						AC 110 V	**3TG1001-0AG2**
						AC 230 V	**3TG1001-0AL2**
						DC 24 V	**3TG1001-0BB4**
20	13	8.4	4	4 NO	**Screw terminals**	AC 24 V	**3TG1010-0AC2**
						AC 110 V	**3TG1010-0AG2**
						AC 230 V	**3TG1010-0AL2**
						DC 24 V	**3TG1010-0BB4**
20	10	8.4	4	3 NO + 1 NC	**Flat connectors**	AC 24 V	**3TG1001-1AC2**
						AC 110 V	**3TG1001-1AG2**
						AC 230 V	**3TG1001-1AL2**
						DC 24 V	**3TG1001-1BB4**
20	10	8.4	4	4 NO	**Flat connectors**	AC 24 V	**3TG1010-1AC2**
						AC 110 V	**3TG1010-1AG2**
						AC 230 V	**3TG1010-1AL2**
						DC 24 V	**3TG1010-1BB4**

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Further information:
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