SIEMENS



Modern, integrated slimline enclosure design

SIRIUS 3RQ3 coupling relays and SIRIUS 3RS70 signal converters: How controllers and field devices communicate with each other

siemens.com/relays

SIRIUS 3RQ3

The compact, space-saving coupling relay in a new design

3RQ3 coupling relays come into their own when standard controllers with their inputs and outputs reach their limits. Whether they are used for isolation or the transmission of signals from one circuit to another, coupling relays also contribute to controller overvoltage protection. Anywhere controllers are used – whether in factory or process automation applications – coupling relays add real added-value.

The new SIRIUS 3RQ3 coupling relays should be your first choice when it comes to isolating circuits, converting voltage levels or amplifying control signals.

With a width of just 6.2 mm and a low overall depth and height, they are ideally suited for installation in control cabinets with tight space requirements resulting from narrow tier spacing or in flat switchboxes.

Their appearance is in harmony with that of other Siemens devices in the control cabinet.

SIRIUS 3RQ3 coupling relays can be wired easily and efficiently, even without tools if desired. As well as using screw or spring-type terminals (push-in technology), an additional option is to use comb-type jumpers to bridge potentials across many devices.

Easy looping through of voltages:

Plug-in comb-type jumpers for all terminals:

- Reduce wiring overhead
- Put an end to tangled cables

With semiconductor output:

- Long electrical service life
- Large number of switching cycles
- Maximum contact reliability
- High DC switching capacity
- Short switching times
- Noise-free switching



Typical applications:

Isolation

- Voltage conversion, e.g. from 24 V DC to 230 V AC
- Signal amplification
- General relay control
- Controller overvoltage and EMC protection

3RQ3 coupling relays



Coupling relay with
manual/automaticCoupling relayselector switchplug-in relay

Coupling relay with mechanical relay output or semiconductor output



Minimal space required on the mounting rail:

- Slimline, compact design with a width of 6.2 mm throughout and low overall depth/height
- Ideal for use in flat switchboxes and control cabinets with narrow tier spacing



SIRIUS 3RS70

Interface converter for analog standard signals with a new design

SIRIUS 3RS70 signal converters are used anywhere that analog signals are isolated or converted. Their main function is to convert a multitude of analog (standard) signals to standard signals and transmit them to a PLC or control cabinet door. The most important elements here are isolation between the input and output sides, i.e. between the field and controller, as well as the conversion of one signal waveform to another (e.g. current to voltage) and signal amplification or regeneration. With 3RS70 it is also possible to convert an analog standard signal to a frequency modulated binary signal for processing with a digital input.



In 3-way isolation, each circuit is isolated from the other circuits, i.e. input, output, and supply voltage potentials are not linked.

3RS70 signal converters

Signal converterSingle-rangewith manual/automaticmulti-rangeselector switch andsignal converpotentiometer

Single-range/ Passive converter multi-range signal converter

High-quality, modern titanium gray design

- Easy-to-read laser inscription
- Appearance consistent with other
- Siemens devices in control cabinet
- Resistant to dirt and yellowing



Easy, fast wiring:

- "Fir tree" profile: all terminals are easily accessible
- Spring-loaded terminals wired at the top: clear view of the terminal easy insertion of wire
- Toolless wiring when used as push-in terminal

Simplified logistics and inventory management thanks to few device variants Input, output and supply voltage have no

Exclusively 3-way isolation:

potential link as every circuit is isolated from the others



Typical applications:

- Isolation of analog signals
- Conversion of analog signals
- Conversion of analog signals to a frequency
- Conversion of non-standard signals to standard signals
- Overvoltage protection of analog inputs

Published by Siemens AG 2017

Digital Factory Control Products P.O. Box 23 55 90713 Fuerth Germany

Article No. DFCP-B10141-00-7600 Dispo 27601 3192 SB08173. Printed in Germany © Siemens AG 2017

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

SIRIUS is registered trademark of Siemens AG. Any unauthorized use is prohibited. All other designations in this document may represent trademarks whose use by third parties for their own purposes may violate the proprietary rights of the owner.