

SIEMENS



## Modern, integrated slimline enclosure design

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

[siemens.com/relays](https://www.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 also consistent with that of other Siemens devices in the control cabinet offering a pleasing aesthetic.

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.

Ordering information can be found in the Industry Mall



### 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/automatic selector switch

Coupling relay with swappable plug-in relay

Coupling relay with mechanical relay output or semiconductor output



### Minimal space required on the mounting rail:

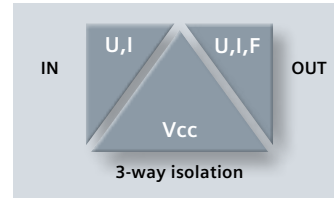
- Slimline, compact design with a width of 6.2 mm throughout and low overall depth/height
- Ideal for use in flat switchboxes and control cabinets with narrow tier spacing



# SIRIUS 3RS70:

## Interface converter for analog standard signals with a new design

SIRIUS 3RS70 interface 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.

Ordering information can be found in the Industry Mall



### 3RS70 interface converters



Interface converter with manual/automatic selector switch and potentiometer

Single-range/multi-range interface converter

Passive converter



#### Exclusively 3-way isolation:

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



#### 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

#### High-quality, modern titanium gray design

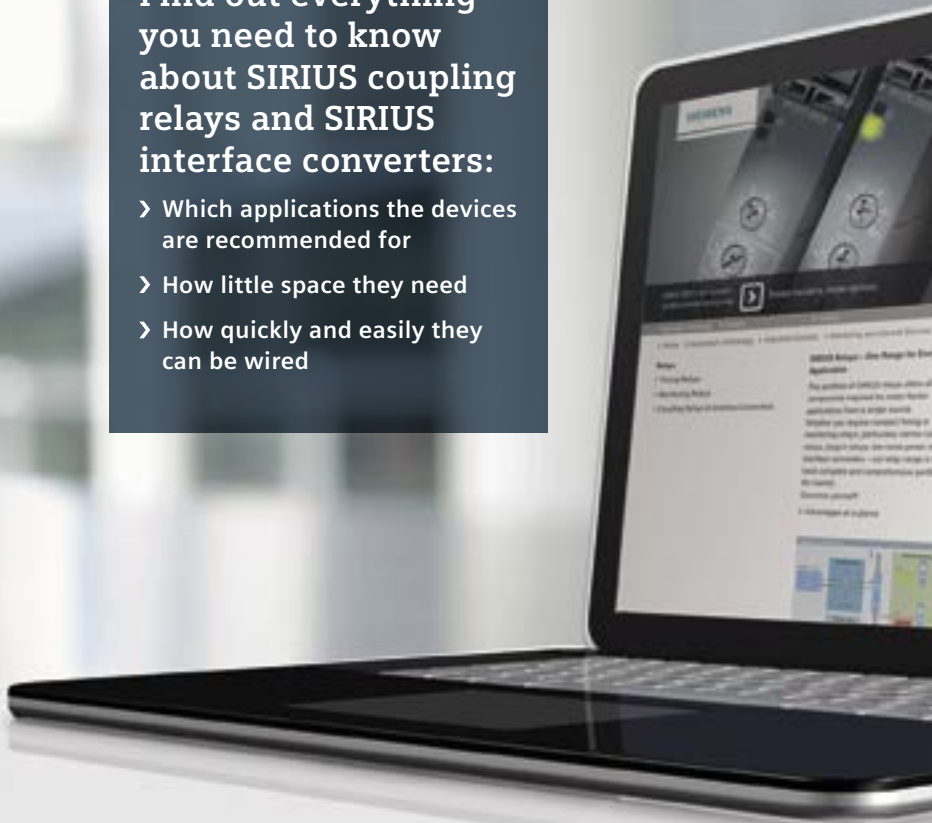
- Easy-to-read laser inscription
- Appearance consistent with other Siemens devices in control cabinet
- Resistant to dirt and yellowing

**Find out more:**

**[siemens.com/relays](http://siemens.com/relays)**

**Find out everything  
you need to know  
about SIRIUS coupling  
relays and SIRIUS  
interface converters:**

- › Which applications the devices are recommended for
- › How little space they need
- › How quickly and easily they can be wired



Subject to change without prior notice  
Article No.: E20001-A2060-P302-X-7600  
Dispo 27601  
170/66378 SB 03152.  
Printed in Germany  
© Siemens AG 2015

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

**Follow us on:**

**[twitter.com/siemensindustry](https://twitter.com/siemensindustry)**

**[youtube.com/siemens](https://youtube.com/siemens)**

Siemens AG  
Digital Factory  
Control Products  
P.O. Box 23 55  
90713 Fürth  
Germany