

# RSI Series Intrinsic Safety Relays for Safe Areas

## For Flameproof Enclosures

Zone 1 and 2 – 21 and 22  
Gas (G) and Dust (D)

### Applications

- Single Channel Relay:
  - For installation in a safe area (NIS area) or Exd box.
- 2-Channel Relay:
  - For installation in a safe area (NIS area).

### Features

- Single and 2-Channel Relay:
  - Provides galvanic isolation of the circuits between the IS area and the NIS area.
  - Mounting on EN 50 022 rail.
  - Input signal (from hazardous area) selected by jumpers:
    - 2-wire NAMUR proximity switch.
    - Volt-free contact (switched current 8.2. V, 8 mA).
  - Direct or reverse repeater selected by jumper.
  - Connection: 2-conductor cable, dielectric strength 500 V, cross-section 2.5 mm<sup>2</sup>, distance between cables: 8 mm.
  - Connection: 2.5 mm<sup>2</sup> maximum
- Single Channel Relay:
  - Transmits to the safe (NIS) area one signal received from the hazardous (IS) area.
  - Relay can be supplied with 24-28 Vdc, 110-140 V, 200-240 V.
  - Output signal (safe area) – electromagnetic relay, 1 changeover switch:
    - 6 A maximum (at 24 V)
    - Maximum: 5A, 250 V, 10 Hz (switching frequency)
- 2-Channel Relay:
  - Transmits to the safe (NIS) area two signals received from the hazardous (IS) area.
  - Relay can be supplied with 24-48 Vdc, 110-140 V, 200-240 V.
  - Output signal (safe area) – electromagnetic relay, 2 changeover switches:
    - 6 A maximum (at 24 V)
    - Maximum: 5 A, 250 V, 10 Hz (switching frequency)

1-Channel Relay



2-Channel Relay



### Certifications and Compliances

#### ◆ ATEX Certification

##### • Certification Type RDN

- Gas, Zones 1 and 2
  - Conforming to ATEX 94/9/CE: Ⓢ II 1 G
- Dust, Zones 21 and 22
  - Conforming to ATEX 94/9/CE: Ⓢ II 1 D
  - Type of Protection: Ex ia IIC
  - Surface Temperature: -10 °C to +60 °C
- CE Declaration of Conformity: 50270

##### ◆ Others Certification

- SIL 2

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### Catalog Numbering Guide

**U**  
|  
Series:  
ATEX Certified

**3**  
|  
Channel Number:  
1 - Single channel  
2 - Two channel

**11**  
|  
Voltage:  
04D - 24 - 48 Vdc  
14A - 110 - 140 Vac 50/60 Hz  
24A - 200 - 240 Vac 50/60 Hz

### Relays

Description	Catalog Number
<b>Single Channel Relay</b>	
200 - 240 V - 50/60 Hz	<b>RSI124A</b>
110 - 140 V - 50/60 Hz	<b>RSI114A</b>
24 - 48 V - 50/60 Hz	<b>RSI104D</b>
<b>2-Channel Relay</b>	
200 - 240 V - 50/60 Hz	<b>RSI224A</b>
110 - 140 V - 50/60 Hz	<b>RSI214A</b>
24 - 48 V - 50/60 Hz	<b>RSI204D</b>

### Dimensions in Millimeters

