

# IDEM SCR-2H Dual Channel Two-Hand Control Safety Relays

**SCR2H-180030**

The IDEM Two-Hand Control Safety Relay is designed in a compact housing. Two-Hand Control monitoring protects operators and machinery during tasks that require the machine to be clear. It is intended for use in safety Circuits that are designed in accordance with EN 60204-1 for example on presses, punches, and bending tools. This safety relay is designed to achieve Type IIIC Two-Hand Control Device (THCD) per ISO 13851.

## Features

- Cyclical monitoring of the output contacts
- Feedback loop for monitoring downstream contactors or expansion modules
- Short circuit and ground fault monitoring
- 22.5 mm DIN rail mounting
- Two NC output contacts

## Safety Data per EN 13849-1

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Category</b>                     | 4                   |
| <b>Performance level</b>            | Ple                 |
| <b>MTTF<sub>d</sub></b>             | High (100 years)    |
| <b>DC<sub>avg</sub></b>             | High (99%)          |
| <b>Safety Data per IEC/EN 62061</b> |                     |
| <b>Sil</b>                          | SIL3                |
| <b>HFT</b>                          | 1                   |
| <b>DC<sub>avg</sub></b>             | >90%                |
| <b>SFF</b>                          | 95%                 |
| <b>PHD<sub>avg</sub> (T=20a)</b>    | >3x10 <sup>-8</sup> |

## SCR-2H Dual Channel Safety Relays

| Part Number         | Price    | Type             | Voltage   | Outputs | Connection            | Drawing |
|---------------------|----------|------------------|-----------|---------|-----------------------|---------|
| <b>SCR2H-180030</b> | \$398.00 | Two-hand control | 24V AC/DC | 2 NO    | Fixed screw terminals | PDF     |



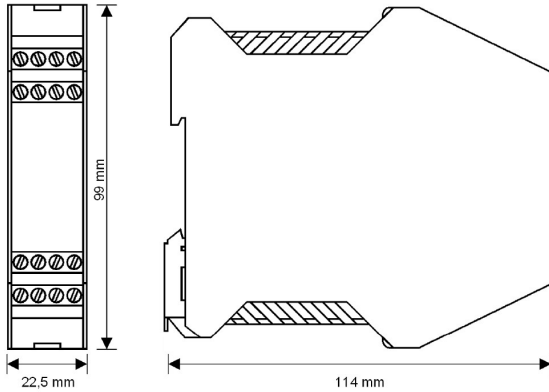
## SCR21 Series Specifications

| General Specifications                    |                                                               |
|-------------------------------------------|---------------------------------------------------------------|
| <b>Temperature</b>                        | -20° to +55°C [-4° to +131°F]                                 |
| <b>Altitude</b>                           | <2000m [6562ft]                                               |
| <b>Degree Of Protection</b>               | IP20                                                          |
| <b>Housing</b>                            | UL94 V-0 thermoplastic                                        |
| <b>Weight</b>                             | 160g (5.64 oz)                                                |
| <b>Agency Approvals and Standard</b>      | cULus, CE, TUV                                                |
| <b>Terminal Designation per EN 50 005</b> | 0.15 to 2.5 mm <sup>2</sup> [26 to 14 AWG]                    |
| Input Specifications                      |                                                               |
| <b>Nominal Voltage</b>                    | 24V AC/DC                                                     |
| <b>Voltage Range</b>                      | 90-110%                                                       |
| <b>Maximum Consumption</b>                | 1.5 W (24V AC/DC)                                             |
| <b>Nominal Frequency</b>                  | 50Hz-60Hz                                                     |
| <b>Control Voltage</b>                    | 24VDC                                                         |
| <b>Control Current</b>                    | <100mA                                                        |
| <b>Short Circuit Protection</b>           | Internal PTC (Positive Temperature Coefficient) resistor      |
| <b>Over Voltage Protection</b>            | Internal VDR (Voltage Dependent Resistor)                     |
| Output Specifications                     |                                                               |
| <b>Mechanical Life</b>                    | 10 x 10 <sup>6</sup>                                          |
| <b>Contact Type</b>                       | 2 NC positively driven contacts                               |
| <b>Operate Delay</b>                      | <20ms                                                         |
| <b>Release Delay</b>                      | <20ms                                                         |
| <b>Maximum Switching Voltage</b>          | 250V                                                          |
| <b>Thermal Current (I<sub>tf</sub>)</b>   | Max. 12A                                                      |
| <b>Short Circuit Strength</b>             | Minimum Contact Fuses - 6A slow blow, 8A fast blow, or 10A gG |
| <b>Switching Capacity</b>                 | AC-15 230VAC, 3A; DC-13 24VDC, 3A                             |
| <b>Switching Frequency</b>                | Max. 360 switching cycles/hr                                  |

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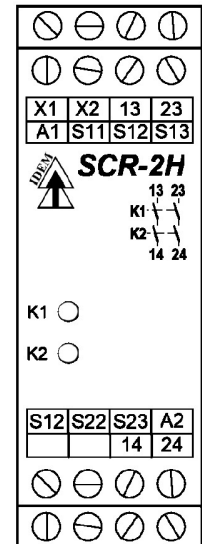


## Dimensions



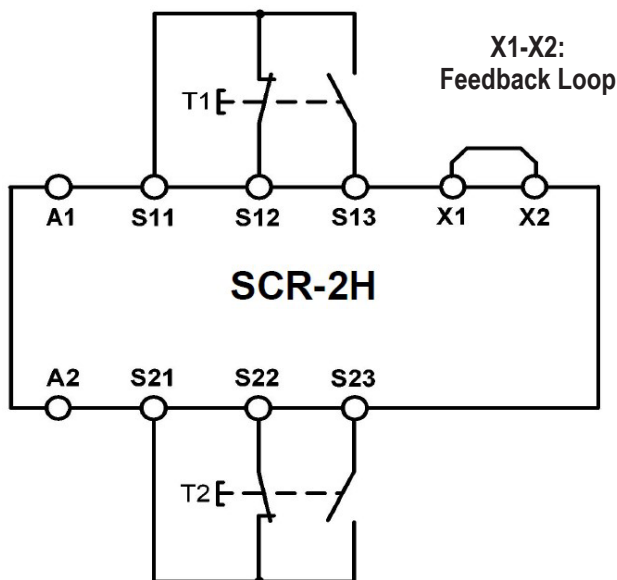
## LED Diagnostics

| When Safety Relay In Operation |                                              |
|--------------------------------|----------------------------------------------|
| Power                          | Power applied to device                      |
| K1                             | Internal relay safety output contacts closed |
| K2                             | Internal relay safety output contacts closed |

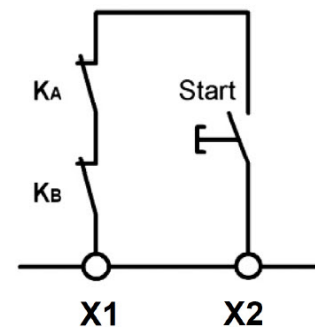


## Applications

### Wiring of the SCR-2H with two-hand pushbuttons



### Feedback wiring



Contactor Manual Feedback

# Safety Products



*Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.*

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