

## SLI-relays for mA size loads: AC-control, DC-load

- Galvanic isolation 4 kV, 8 mm creep distance
- Effective interference elimination
- Compatible with NPN/PNP logic
- LED indication



### General description

The relays are used as an interface between AC sensors and control systems. The integrated interference protection provides reliable operation even in very demanding electrical environments. Thanks to interference protection, signal cables can be run alongside power cables on, for example, cable racks for more than

1.5 km without capacitive cross-talk affecting relays. The relays have no mechanical parts, which provides very reliable application. The CRP models are especially designed for connecting to 2-wire sensors that generate leakage current. The CRP relays are blind to leakage currents up to 3.5 mA.

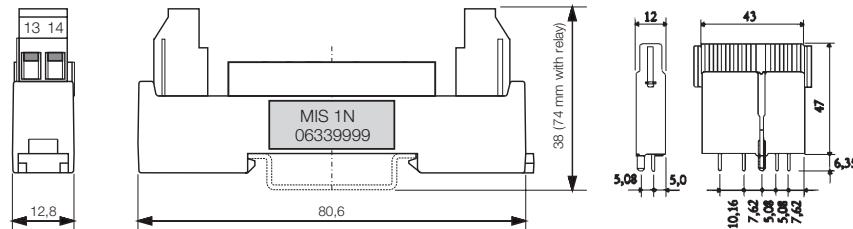
### Technical data

(Values at +25 °C)

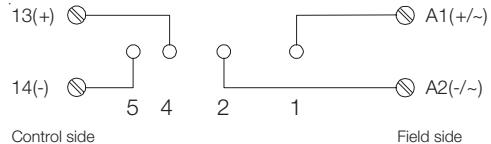
| PRIMARY CIRCUIT                   | SLI25CR   | SLI120CR  | SLI120CRP | SLI230CR        | SLI230CRP | SLI380CRS* |
|-----------------------------------|-----------|-----------|-----------|-----------------|-----------|------------|
| Input voltage nom.                | 24 V AC   | 120 V AC  | 120 V AC  | 230 V AC        | 230 V AC  | 400 V AC   |
| Input voltage max.                | 32 V AC   | 140 V AC  | 140 V AC  | 265 V AC        | 265 V AC  | 440 V AC   |
| Power consumption max.            | 15 mA     | 7 mA      | 8 mA      | 6 mA            | 7.5 mA    | 5 mA       |
| Input impedance typical           | 2 kΩ      | 20 kΩ     | 17 kΩ     | 45 kΩ           | 35 kΩ     | 80 kΩ      |
| Activation voltage typical        | 16 V AC   | 80 V AC   | 80 V AC   | 170 V AC        | 170 V AC  | 320 V AC   |
| Drop-out voltage typical          | 14 V AC   | 60 V AC   | 60 V AC   | 110 V AC        | 140 V AC  | 220 V AC   |
| Drop-out current typical          |           |           | 3.5 mA    |                 | 3.5 mA    |            |
| SECONDARY CIRCUIT                 |           |           |           |                 |           |            |
| Load voltage max.                 | 0-60 V DC | 0-60 V DC | 0-60 V DC | 0-60 V DC       | 0-60 V DC | 0-60 V DC  |
| Voltage drop at max. load typical | 0.2 V DC  | 0.2 V DC  | 0.2 V DC  | 0.2 V DC        | 0.2 V DC  | 0.2 V DC   |
| Load current max.                 | 50 mA     | 50 mA     | 50 mA     | 50 mA           | 50 mA     | 50 mA      |
| Activation time typical           | 20 ms     | 50 ms     | 20 ms     | 50 ms           | 40 ms     | 50 ms      |
| Drop-out time typical             | 60 ms     | 50 ms     | 40 ms     | 50 ms           | 40 ms     | 50 ms      |
| Operating temperature             |           |           |           | See table below |           |            |

\*The socket is securely fitted to the relay.

### Dimensions



### Connections



### AC input module

Ambient temperature is defined as the temperature in direct proximity to the relays. The surface temperature of the relay (measured at the

middle of the relay's top surface) must be kept under 70-75 °C for a long lifetime. Each 10 °C increase halves the lifetime of the relay.

| Ambient temperature | Applies to                            | Limitations  |
|---------------------|---------------------------------------|--|
| -25 °C to +40 °C    | All input relays                      | None   |
| +40 °C to +55 °C    | 120 V AC and 230 V AC relays          | Only every other module should be constantly activated when the relays are mounted beside one another.   |
| +55 °C to +70 °C    | Relays with voltages from 48-230 V AC | If the modules are in the activated state the majority of the time, the modules must be 12.5 mm apart. On a mounting base, every other position must be empty. |

### Ordering guide

| Part number  | Description                                   | Input    | Output          | Mounting |
|--------------|---|----------|-----------------|----------|
| SLI25CR      | Input relay                                   | 24 V AC  | 0-60 V DC/50 mA | Plug-in  |
| SLI120CR     | Input relay                                   | 120 V AC | 0-60 V DC/50 mA | Plug-in  |
| SLI230CR     | Input relay                                   | 230 V AC | 0-60 V DC/50 mA | Plug-in  |
| SLI120CRP    | Input relay                                   | 120 V AC | 0-60 V DC/50 mA | Plug-in  |
| SLI230CRP    | Input relay                                   | 230 V AC | 0-60 V DC/50 mA | Plug-in  |
| SLI380CRS    | Input relay                                   | 400 V AC | 0-60 V DC/50 mA | Plug-in  |
| MIS1GN       | Socket for input relays. Standard             |          |                 | DIN rail |
| JUMPER 16-13 | Jumper bar for Delcon's sockets, max. 16/bar. |          |                 |          |