

Electrical specifications

| Order information | |
|---|--|
| type | CMS-UI-R |
| cat.no | 95120.8 |
| Input data | |
| range (select via dipswitches) | 0-1V/0-2V/0-2,5V/0-5V/1-5V/0-10V/0-20V/0-40V/0-5mA/0-10mA/0-20mA/4-20mA |
| max. input signal (U / I) | 40V / 25mA |
| input resistance (U / I) | > 200 kOhm / 50 Ohm |
| Output data | |
| relay output | 1 CO contact, 240V- |
| output function (select via dipswitch) | threshold with hysteresis / ON and OFF threshold / threshold range control |
| adjustment range Threshold / Hysteresis | 10...90% |
| rated / inrush current (ohmic load) | 3A / 5A |
| max. power rating | 1200VA @ 240V ac, 5A |
| life span @ 23°C and ohmic load | Electrical: at rated load: > 1,5 x 10 ⁵ cycles. Mechanical: > 15 x 10 ⁶ cycles |
| contact material | AgNi |
| test voltage | 4kV |
| General data | |
| module power supply | 24V DC ±25% |
| module current | Approx. 50mA |
| temperature coefficient | < 0,02 %/°C |
| max. conversion frequency | 10Hz |
| CE marking | Low Voltage Directive (LVD) 2006/95/EC, according requirements of EN 61010 EMC Directive 2004/108/EC, according requirements of EN 55011 and EN 61326-1 |
| isolation voltage input / power | 1kV, 50Hz, 1min. |
| isolation voltage input / output | 4kV |
| isolation voltage output / power | 4kV |
| operating / storage temperature | 0°C...+55°C / -20°C...+70°C |
| conductor cross section | 0,2 - 2,5 mm ² |
| connection system | screw clamp connection, pluggable |
| insulation stripping length | 7 mm |
| mounting / installation position | DIN-rail TS35 / any |
| module size LxWxH (TS35) | 17,5 x 99 x 114,5mm |
| weight | 120 gr |

Manual



The CMS-UI-R is a multi-functional 3-way isolated threshold relay. This module is used for control and alarm functions.

The 3-way isolation enables the module to be used locally as well as in the vicinity of the controlling system.

The inputs and output relay functions of the converter are configured by means of dipswitches.

Any combination of input and output can be chosen, so numerous different control functions can be set.

Default input/output relay setting is 0..10V / threshold with hysteresis.

Other default input/output settings on request.

Features:

- Multifunctional analog input (0..1V, 0..2V, 0..2,5V, 0..5V, 1..5V, 0..10V, 0..20V, 0..40V, 0..5mA, 0..10mA, 0..20mA, 4..20mA)
- 3 output relay control functions (threshold with hysteresis, ON and OFF threshold, threshold range control)
- Analog signal range selectable via DIP switches
- 3-Way galvanic isolation
- Power supply 24V DC
- Other analog signal ranges on request

Configuration



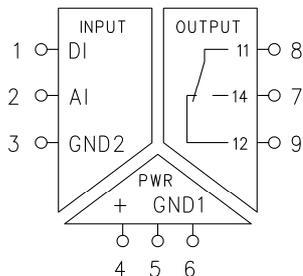
To open the module press the locking levers under the terminals with a screwdriver.

The module is configured by setting the dip-switches according to this manual and the table on the side of the module.

Connecting the module

The pin configuration for I/O and power connection is shown on the top of the module. DI input is not used.

Connection diagram



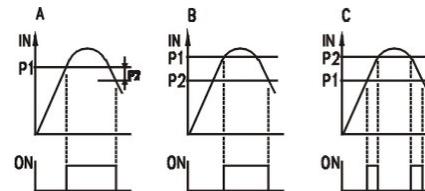
Dipswitch settings

| | Dipswitch 1 | | | | | | | |
|------------------|-------------|-----|-----|-----|-----|-----|-----|---|
| Input range (V) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0...1V | OFF | OFF | ON | ON | OFF | ON | OFF | X |
| 0...2V | OFF | OFF | ON | OFF | ON | ON | OFF | X |
| 0...2,5V | OFF | ON | OFF | ON | ON | ON | OFF | X |
| 0...5V | OFF | ON | OFF | OFF | OFF | OFF | ON | X |
| 1...5V | OFF | ON | OFF | ON | OFF | OFF | ON | X |
| 0...10V | OFF | ON | OFF | OFF | ON | OFF | ON | X |
| 0...20V | OFF | ON | OFF | ON | ON | OFF | ON | X |
| 0...40V | OFF | ON | OFF | OFF | OFF | ON | ON | X |
| Input range (mA) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0...5mA | ON | OFF | ON | OFF | OFF | OFF | ON | X |
| 0...10mA | ON | OFF | ON | OFF | ON | OFF | ON | X |
| 0...20mA | ON | OFF | ON | ON | ON | OFF | ON | X |
| 4...20mA | ON | OFF | ON | ON | OFF | ON | ON | X |

| | Dipswitch 2 | | | | | | | |
|-----------------------|-------------|---|---|-----|-----|---|---|---|
| Relay output function | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| A | X | X | X | OFF | OFF | X | X | X |
| B | X | X | X | ON | OFF | X | X | X |
| C | X | X | X | OFF | ON | X | X | X |

X = Don't Care

Relay switching diagram



Set the threshold value of potentiometer P1 and P2 by using a screwdriver. Both potentiometers represent a percentage from the selected input value. Full left turn is 0% and full right turn is 100% of the selected input value.

- A:** The relay switches on when value P1 is reached. The relays switches off when value P1 - P2 is reached.
- B:** The relay switches on when value P1 is reached. The relays switches off when value P2 is reached.
- C:** The relay switches on between P1 and P2.