

### 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 <sup>5</sup> cycles. Mechanical: > 15 x 10 <sup>6</sup> 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 <sup>2</sup>
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



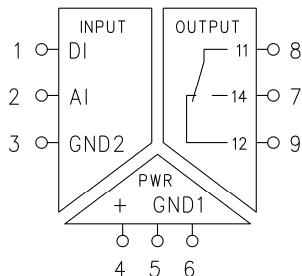
To open the module press the locking levers under the terminals with a screwdriver.

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



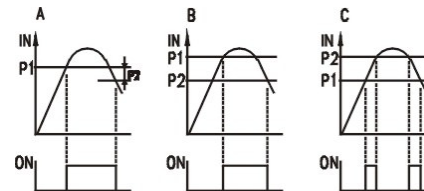
### Dipswitch settings

Input range (V)	Dipswitch 1							
	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

Relay output function	Dipswitch 2							
	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.