



# MTV-1-CP

## 230 VAC potentiometer with min & max, dry contact

The MTV-1-010-CP potentiometer is developed to control equipment that needs a 1–10 VDC, 2–20 mA or 10–100% PWM control signal. The potentiometer needs a supply of 230 VAC, and gives a stepless output signal. The minimum values can be adjusted within 1–7 VDC / 2–14 mA / 10–70% PWM, and the maximum values are within 3–10 VDC / 6–20 mA / 30–100% PWM. There is an additional switch on / off function (e.g. for controller remote on / off). The potentiometer is suitable for both inset (IP44) and surface mounting (IP54).

### Key features

- Selectable output: 1–10 VDC, 2–20 mA or 10–100% PWM
- Infinitely variable control of the output signal between 10 and 100%
- Selectable minimum (Vmin) and maximum (Vmax) output by internal trimmers
- Built-in switch with on / off function (dry contact at off-position)
- Splashproof enclosure
- Inset or surface mounting

### Area of use

- A variety of applications where a 1–10 VDC, 2–20 mA or 10–100% PWM control signal is required

### Technical specifications

|   |                                     |                           |
|---|-------------------------------------|---------------------------|
| Supply                                  | 230 VAC ±10% / 50–60 Hz             |                           |
| Output                                  | 1–10 VDC / 2–20 mA / 10–100% PWM    |                           |
| Vmin                                    | 1–7 VDC / 2–10 mA / 10–70% PWM      |                           |
| Vmax                                    | 3–10 VDC / 6–20 mA / 30–100% PWM    |                           |
| Dry contact (CS) max. switching current | 4 A                                 |                           |
| Load                                    | 1–10 VDC ≥ 2 kΩ                     |                           |
|   | 2–20 mA mode: ≤ 500 Ω               |                           |
|   | 10–100% PWM ≥ 2 kΩ                  |                           |
| On / off switch                         | CS - dry contact                    |                           |
| Ambient conditions                      | Operating temperature               | 0–50 °C                   |
|   | Relative humidity                   | < 95% rH (non-condensing) |
| Protection standard                     | IP44 / IP54 (according to EN 60529) |                           |



### Area of use

- A variety of applications where a 0–10 VDC control signal is required

### Settings

|  |   |
|--|---|
| 1 - Minimum speed / output trimmer, Vmin             | 1–7 VDC / 2–14 mA / 10–70% PWM            |
| 2 - Maximum speed / output trimmer, Vmax             | 3–10 VDC / 6–20 mA / 30–100% PWM          |
| 3 - Analog / modulating output mode selection jumper | 1: 1–10 VDC / 2: 2–20 mA / 3: 10–100% PWM |

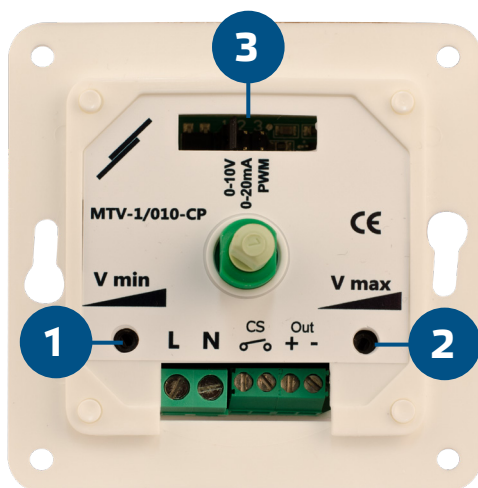
### Standards

- Low Voltage Directive 2014/35/EC
- EMC Directive 2014/30/EC
- RoHS Directive 2011/65/EC

### Global trade item numbers (GTIN)

| Packaging | MTV-1-010-CP   |
|-----------|----------------|
| Unit      | 05401003008928 |
| Carton    | 05401003301418 |
| Box       | 05401003502082 |

### Key features



|             |   |
|-------------|---|
| L, N        | Power supply (230 VAC ±10% / 50–60 Hz)            |
| Out (+, -)  | Output voltage (1–10 VDC / 2–20 mA / 10–100% PWM) |
| CS          | Dry contact (for remote on / off)                 |
| Connections | Cable cross section: max. 1,5 mm <sup>2</sup>     |

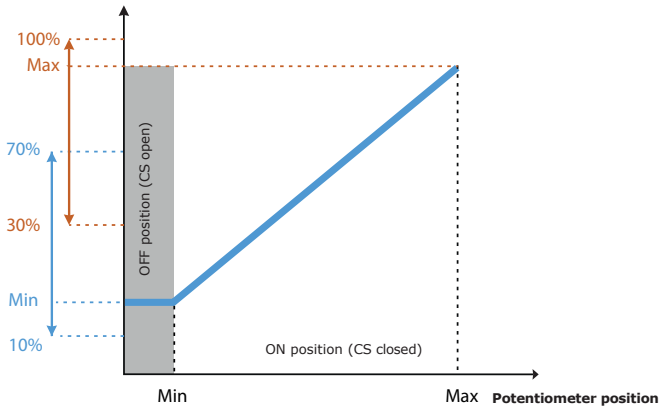


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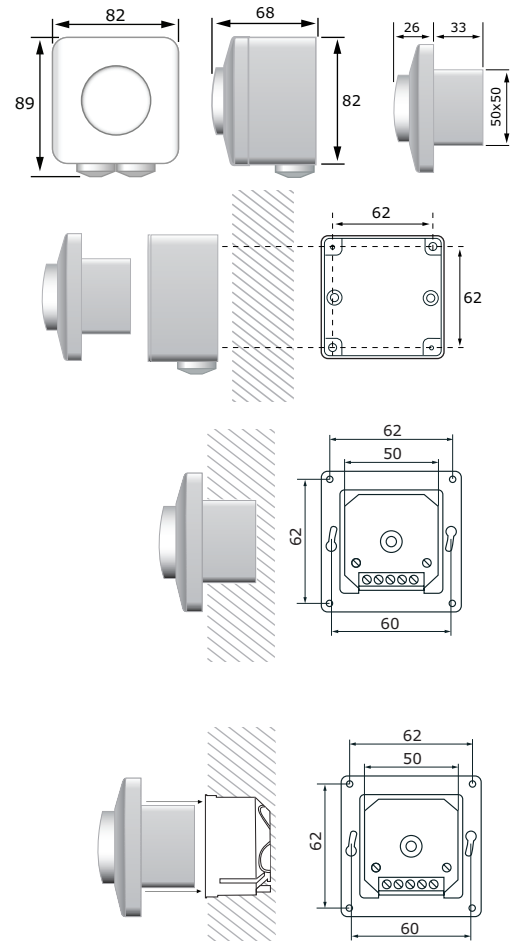
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## Operational diagram

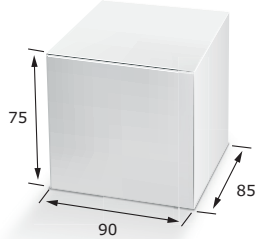
### Analog output



## Fixing and dimensions



## Packaging



| Article      | Packaging        | Length [mm] | Width [mm] | Height [mm] | Net weight | Gross weight |
|--------------|------------------|-------------|------------|-------------|------------|--------------|
| MTV-1-010-CP | Unit (1 pc.)     | 85          | 95         | 70          | 0,19 kg    | 0,21 kg      |
|              | Carton (10 pcs.) | 485         | 175        | 84          | 1,96 kg    | 2,31 kg      |
|              | Box (60 pcs.)    | 580         | 370        | 280         | 11,76 kg   | 14,85 kg     |