## Remarks

Supply circuit should include an instantaneous fuse of strength up to 10A.

## Maintenance and service

The switch does not require periodical maintenance.
In the case of a defect please contact with the Commercial Department of CZAKI.

## Factory settings

Number of active channels: 10, Manual operation

## CZAKI THERMO-PRODUCT

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MEASURING POINT SWITCH
TYPE PMP-201
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## Use

PMP-201 measuring point switch makes possible connection of several gauges to one measuring instrument.
It is designed for panel and board installation
PMP-201 makes possible digital setting of the following parameters:

- number of active channels (gauges)
- manual or automatic operation
- channel (gauge) switching over time


## Technical data

| Number of channel (gauge) inputs | 10 |
| :--- | :--- |
| Number of paths for each input | 3 |
| Resistance of relay contacts (plated by gold) | $<100 \mathrm{~m} \Omega$ |
| Maximum voltage and switching over current | $30 \mathrm{~V} / 100 \mathrm{~mA}$ |
| Power supply | $230 \mathrm{~V}, 50 \mathrm{~Hz}, 3 \mathrm{VA}$ |
| Degree of casing protection |  |
| - | IP 40 |
| on the front side | IP 30 |
| Ambient temperature | $0 \ldots+50^{\circ} \mathrm{C}$ |
| Dimensions/weight | $96 \times 48 \times 143 \mathrm{~mm} / \mathrm{ca} .400 \mathrm{~g}$ |
| Mounting window dimensions | $92 \times 43 \mathrm{~mm}$ |

## Description of design

The casing of the measuring instrument made of plastic matter may be mounted in the panel. On the front panel (vide drawing) there are three pushbuttons for setting switch parameters and a LED field.

## Designations:

- Pushbutton $\triangle$ designed for increasing the value being set.
- Pushbutton $\boldsymbol{\nabla}$ designed for decreasing the value being set.

Single depression of the pushbutton causes increase / decrease of the value by 1,
depression and holding of the pushbutton for more than 3 seconds causes a rapid change of the value.

- Pushbutton 4. designed for programming parameters.
$1 . . .10$ red LED indicating the number of active channel.
A green LED indicating automatic operation
T green LED which indicates entering the switching time programming mode
M green LED which indicates entering the active channel switching mode.

In the rear part of the switch there is a terminal strip making possible connection of supply cables, ten gauges and measuring instrument.

Operation of the switch consists in connection of one of the inputs $1 \ldots .10$ to OUT output. Connection takes place by means of relays P1 .... P10
Diodes located on the front panel inform about the actual condition of the switch.

## Programming of the number of active channels

Depres and hold pushbutton $\boldsymbol{\rightharpoonup}$ until diode $\mathbf{M}$ lights up.
By means of pushbuttons $\mathbf{4}$ or $\nabla$ light up one of diodes
$1 . .10$ indicating the number of active channels
Depres the pushbutton $4>$ and hold it until diodes $\mathbf{A}, \mathbf{T}, \mathbf{M}$ extinguish.

## Manual operation

Depres the pushbutton 4 and hold it until diodes $\mathbf{A}, \mathbf{T}, \mathbf{M}$ extinguish
By means of pushbuttons $\mathbf{\Delta}$ or $\boldsymbol{\nabla}$ set the required channel.
Channels are switchwd over within the range of the active channels beig programmed. During the manual operation "keep in mind" the actual number of the channel (switching on and off the supply mains does not change the channel).

## Automatic operation

Depres and hold pushbutton $4 \downarrow$ until diode A illuminates.
Pushbutton $\mathbf{\Delta}$ switches on automatic switching over of channels.
Exit from the automatic working cycle: Depress three times the pushbutton until diodes A, T, M extinguish.

Programming of channel switching over time (for the automatic working cycle) Depres and hold pushbutton $4 \boldsymbol{\square}$ until diode $\mathbf{T}$ illuminates.
By means of pushbuttons $\mathbf{4}$ or $\boldsymbol{\nabla}$ light up one of diodes $1 . . .10$ switching over time according to the following table:

| Diode number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Diode switching <br> over time [s] | 1 | 3 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 90 |

Depres the pushbutton 4 and hold it until diodes $\mathbf{A}, \mathbf{T}, \mathbf{M}$ extinguish.

## Specification of equipment

Measuring instrument, fixing grips, operating instructions with guarantee certificate.

## Installation of the switch

Switch is to be mounted in the board by means of fixing grips.
Supply (copper) cables and load circuit cables are to be connected according to the drawing. Cable terminals should be tinned.


Block diagram


Front panel

| OUT | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: |
| $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ | $\bigcirc \bigcirc$ |
| $a \quad b \quad c$ | $a \quad b \quad c$ | $a \mathrm{~b}$ c | $a \quad b \quad c$ |



