

## HOW TO CHANGE TYPE OF PROBE ON 1012 (P, H, V)

### 1. Access configuration level (hardware settings)

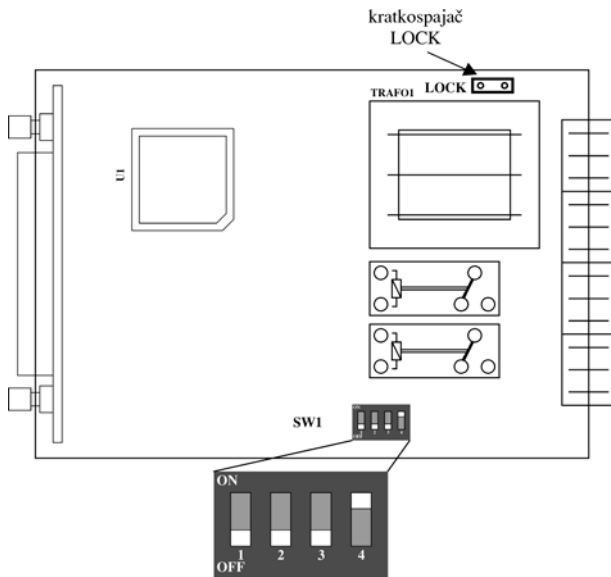
To access configuration level, follow this procedure:

- Turn off the controller, remove all clamps. Make sure to remember proper position of each clamp!
- Remove back lid of the controller and take electronics out
- **On main PCB, near the transformer there is a jumper labelled LOCK (see picture). Release this jumper to unlock device and enable configuration access.**
- **Change position of DIP SWITCH SW1 if necessary. Position this switch for different types of probes according to Table 1.**
- Return electronic device back to case and close back lid
- Return all clamps and connect power supply

Now access to configuration level is enabled. Perform all adjustments that are required.

Upon completion of all adjustments, you should LOCK the device again using same procedure in reverse order (return LOCK jumper back into position). This will enable protection of device and access only on user level with access code protection.

**NOTE: When configuration level is enabled, all parameters can be accessed and changed. Use this option with caution and LOCK the device again after setting is finished to prevent un-authorized access and change of parameters.**



Picture 1. Position of jumper LOCK and DIP SWITCH SW1 on main PCB

Table 1. DIP SWITCH setting

Thermocouples and Pt100	
Voltage input: 0 ÷ 1V and PT1000	
Voltage input: 0 ÷ 10V	
Current input: 0 ÷ 20mA	

### 2. Change the type of probe (software settings)

Controller is delivered already set to requested probe type according to customer request, but sometimes change of the probe on input is required. To do that, follow the procedure to unlock the device and enable access on configuration level as described above.

Complete procedure is following:

- Enter the configuration level as described in article 1.
- Release the jumper LOCK and set the DIP SWITCH (Table 1) to appropriate position according to given table.
- Return electronics in the plastic housing and return all clamps in position.
- Press the button **PAR** to reach the parameter **Sond**. This label is shown on display flashing with old value.
- Use buttons **↓** and **↑** to adjust new value corresponding to new probe that will be used in the future. List of possible probes is shown in Table 2.
- In case that parameter **Sond** has selected values **L.in** or **.L.in** make sure that value of parameter **IP** (type of linear input) is also selected appropriately.
- Check and if necessary adjust parameters for set point limitation (**h.1SP** and **LoSP**) to match the limits of new type of probe (see Table 2).
- Wait for controller to return to normal view (30 seconds)
- Exit configuration level and lock the device again as described in hardware settings.

Table 2. Input parameters

PARAMETER LABEL		POSSIBLE VALUES OF PARAMETER		DEFAULT VALUE
<b>Sond</b>	Type of probe		measurement range	on request
		<b>FE J</b> - thermocouple J (Fe- SAMA Konst)	0 ÷ 750 °C	
		<b>nCr</b> - thermocouple K (NiCr - Ni)	0 ÷ 1200 °C	
		<b>FE L</b> - thermocouple L (Fe - DIN Konst)	0 ÷ 750 °C	
		<b>r 13</b> - thermocouple R (PtRo13% - Pt)	300 ÷ 1600 °C	
		<b>S 10</b> - thermocouple S (PtRo 10% - Pt)	300 ÷ 1600 °C	
		<b>b 30</b> - thermocouple B (PtRo 30% - Pt)	600 ÷ 1700 °C	
		<b>P 1</b> - Pt100 without decimal point	-99 ÷ 600 °C	
		<b>.P 1</b> - Pt100 with decimal point	-99.9 ÷ 600.0 °C	
		<b>P 10</b> - Pt1000 without decimal point	-99 ÷ 600 °C	
		<b>.P 10</b> - Pt1000 with decimal point	-99.9 ÷ 600.0 °C	
		<b>L. in</b> - linear input without decimal point	-999 ÷ 1999	
		<b>.L. in</b> - linear input with decimal point	-99.9 ÷ 199.9	
<b>lt ,P.</b>	Defines the type of linear input (shown only in case that linear input is selected as value of <b>Sond</b> parameter)	<b>n 1</b> - voltage input 0 ÷ 1V <b>n 10</b> - voltage input 0 ÷ 10V <b>S 20</b> - current input 0 ÷ 20mA		

We emphasise again that it is crucial to match all 3 items: actual probe, DIP SWITCH position and **Sond** parameter to enable proper operation and correct measurement of temperature!