

## Commissioning Procedure for GESTRA Process Controller KS92-1, Ref. N° 1502692

This document describes the commissioning procedure for the process controller KS 92-1 in conjunction with a measuring transducer (4-20 mA) and a control valve.

For more information on terminal/electrical connections, fault finding / troubleshooting, self-tuning etc. please refer to the operating manual supplied with the equipment.

### **DANGER:**

Observe the safety notes stated in the operating manual of the KS92-1!

Commissioning the controller with input = 4-20 mA and **output = 3-point stepping**

To adjust the controller use the two arrow keys and the enter key to the right of the keypad.

Use the arrow keys to change the setpoint indicated in the read-out display. The setpoint can also be changed when the equipment is in operation.

Press the enter key several times until the first parameter "**OuH.1**" appears in the display.

Scale the **measuring input** of the controller. Use the arrow keys to set the upper value.

Example:     For level control set this value to 0-100 [%].  
              For pressure control set the upper value of the pressure transducer, e. g. 0-10 [bar].

Press the enter key several times until the parameter "**t.F1**" appears in the display.

Adjust the **damping factor** for the input signal (4-20 mA).

Example:     With level control the detection threshold for the moving about of the fluid is diminished as an inverse function of the filter time.

Press the enter key several times until the parameter "**Pb1**" appears in the display.

Set the **proportional band** of the controller. The smaller "Pb1", the greater the control action in the event of a deviation.

Press the enter key several times until the parameter "**ti1**" appears in the display.

Set the **integral action time** of the controller. The greater "ti1", the smoother the control action will be.

Press the enter key several times until the parameter "**td1**" appears in the display.

Set the **derivative action time** of the controller. The speed of the control action for the correction increases the more this value is increased and the faster the controlled variable changes.

Press the enter key several times until the parameter "**SH**" appears in the display.

Set the **dead band** (neutral zone) of the controller. The larger this setting, the higher the admissible deviation from the setpoint before control action is taken.

Press the enter key several times until the parameter "**H.2**" appears in the display.

Set the **upper limit** (MAX alarm).

Changes are saved automatically. To quit the programming mode press the enter key several times until the display of the controller indicates the setpoint. After approx. 30 seconds the controller automatically switches back to the read-out display.

Press "Manual / Automatic" key to switch to manual mode. You can now directly open and close the connected control valve by pressing the respective arrow key.

The "F" key does not have a function.