

4.3.16 Auxiliary Output Set Up Group

Introduction

The auxiliary output set up group lets you enable or disable the auxiliary output selection which provides a milliampere output representing one of four control parameters: Input, Output, Setpoint, or Deviation. You can also set the auxiliary output low and high scaling factors.

Auxiliary output group prompts

Table 4-15 lists all the function prompts in the auxiliary output set up group and their definitions.

For a 2-pen recorder, the desired input channel is displayed on the left side of the operator interface.

Press **FUNC** to select channel.

Press **SETUP** key until "AUX OUT" appears in the lower display.

Press **FUNC** key to select the parameters.

Table 4-15 Auxiliary Output Parameter Definitions

Lower Display Prompt	Upper Display Range of Setting or Selection	Parameter Definition
<p>AUX OUT</p> <p><i>continued on next page</i></p>	<p>NONE <i>[factory setting]</i></p> <p>INP</p> <p>OUT</p> <p>SP</p>	<p>AUXILIARY OUTPUT SELECTION provides an mA output representing any of four control parameters. The display for Auxiliary Output viewing will be in engineering units for all but output. Output will be designated in percent (%).</p> <p>The Auxiliary Output is the same output as the Current Output and is <i>not</i> available if the control output algorithm = CUR, CurT, or Tcur.</p> <p>Other prompts affected by these selections: "4 mA VAL" and "20mA VAL".</p> <p>NO AUXILIARY OUTPUT</p> <p>INPUT—This represents the configured range of input. FOR EXAMPLE: Type "J" Thermocouple (0 to 1600°F) 0°F display = 0% output 1600°F display = 100% output</p> <p>OUTPUT—Represents the displayed controller output in percent (%).</p> <p>SETPOINT—Represents the value of the setpoint in units of PV.</p>

Table 4-15 is continued on next page.

Table 4-15 Auxiliary Output Parameter Definitions, Continued

Lower Display Prompt	Upper Display Range of Setting or Selection	Parameter Definition
AUX OUT (continued)	DE	<p>DEVIATION (Process Variable minus Setpoint)— Represents –100 to +100% of the selected PV span in engineering units. FOR EXAMPLE:</p> <p style="padding-left: 40px;">Type "T" Thermocouple PV range = –300 to +700°F PV span = 1000°F Deviation range = –1000 to +1000°F If PV = 500°F and SP = 650°F then Deviation Display = –150°F Auxiliary Output = 42.5%</p> <p>NOTE: A deviation of 0°F yields an auxiliary output of 50%.</p>
4 mA VA	<p>Low Scale Value within the range of the selected variable to represent 4 mA</p> <p><i>[factory setting = 0]</i></p>	<p>AUXILIARY OUTPUT LOW SCALING FACTOR— Use a value in engineering units for all selections above except Output.</p> <p>Use value in percent (%) for Output. (Output can be between –5 and +105%.)</p>
20mA V	<p>High Scale Value within the range of the selected variable to represent 20 mA</p> <p><i>[factory setting = 100]</i></p>	<p>AUXILIARY OUTPUT HIGH SCALING FACTOR— Use a value in engineering units for all selections above except Output.</p> <p>Use a value in percent (%) for Output. (Output can be between –5 and +105%.)</p> <p>*When Deviation is selected, only one operating parameter will be entered. This value represents the deviation level that will produce 20 mA output. Zero deviation will produce a center scale (12 mA) output. A negative deviation equal in magnitude to the Auxiliary Output High Value will provide a low end (4 mA) output.</p>

4.3.14 Timer Set Up Group

Introduction

The timer option allows you to configure a timeout period and to select the timer start by either the keyboard (Increment or Decrement key) or Alarm 1. The optional digital input can also be configured to the start the timer. The timer display is selectable as either "time remaining" or "elapsed time".

Alarm 2 is activated at the end of the timeout period. When the timer is enabled, it has exclusive control of the Alarm 2 relay; any previous Alarm 2 configuration is ignored. At timeout, the timer is ready to be activated again by whatever action has been configured. Relay 2 will remain energized until the timer is reset.

See 4.5.2.7 for operation of timer.



Timer group prompts

Table 4-13 lists all the function prompts in the timer setup group and their definitions.

Press **SET UP** key until "TIMER" appears in the lower display.

Press **FUNC** key to display parameters.

Table 4-13 Timer Parameter Definitions

Lower Display Prompt	Upper Display Range of Setting or Selection	Parameter Definition
TIMER	ENAB DIS [factory setting]	TIMER - Use this to enable or disable the timer option.
PERIOD	0:00 to 99:59 [factory setting = 0]	PERIOD - Configure the length of the timeout period (from 0 to 99 hours, 59 minutes).
START	KEY [factory setting] AL1	START - Select whether the Timer starts with the keyboard (Increment or Decrement key) or Alarm 1.
L DISP	TREM [factory setting] ET	<p>L DISP - Select whether time remaining (TREM) or elapsed time (ET) is displayed for the timer option.</p> <p>The time is shown on the lower display in hh:mm format along with a rotating "clock" character.</p> <p>Time remaining: If the "clock" rotation is clockwise, elapsed time is indicated.  □.□□</p> <p>Elapsed time: If the "clock" rotation is counterclockwise, time left is indicated.  □.□□</p>

4.3.18 Remote Switch (Digital Inputs) Set Up Group

Introduction

If the hardware supports optional digital inputs, the parameters in this group are used to specify what action the recorder will take if these “remote switches”, triggered by some external event, are closed.

Remote switch group prompts

Table 4-17 lists all the function prompts in the remote switch set up group and their definitions. For a 2-pen recorder, the desired input channel is displayed on the left side of the operator interface.

Press **FUNC** to select channel.

Press **SETUP** key until “REM SW” appears in the lower display.

Press **FUNC** key to select the parameters.

Table 4-17 Remote Switch Parameter Definitions

Lower Display Prompt	Upper Display Range of Setting or Selection	Parameter Definition
REMSW1	<p>NONE <i>[factory setting]</i></p> <p>SP2</p> <p>MAN</p> <p>MNFS</p> <p>HOLD</p> <p>RUN</p> <p>TIMR</p>	<p>REMOTE SWITCH 1—Use this parameter to specify what action the recorder should take if digital input 1 for this channel goes to ON (switch contact closed).</p> <p>NONE - No remote switching action.</p> <p>SETPOINT2 - Controller setpoint used in Auto will go to the value of the second setpoint (operating parameter "S2" for the channel) when the digital input goes ON. (When it goes OFF, the recorder will resume using "SP" for the channel.) Use of the second setpoint with a remote switch is independent of the number of setpoints specified with control group parameter "NumSPs".</p> <p>MANUAL - Controller will be switched to Manual mode when the digital input goes ON. Output will not change until the operator changes it. (When the digital input goes OFF, the controller will go back to Auto, using operating parameter "SP" as the basis of computing output.)</p> <p>MANUAL WITH FAILSAFE - Controller will be switched to Manual mode <u>and</u> the output will be changed to the value of control group parameter "FAILSF" for the channel when the digital input goes ON. (When the digital input goes OFF, the controller will go back to Auto, using operating parameter "SP" as the basis of computing output.)</p> <p>HOLD - When the digital input goes ON, the recorder will hold execution of the single setpoint ramp or the optional setpoint program.</p> <p>RUN - When the digital input goes ON, the recorder will start execution of the single setpoint ramp or the optional setpoint program.</p> <p>TIMER - When the digital input goes ON, the optional timer will start.</p>
REMSW2	<p>NONE <i>[factory setting]</i></p> <p>SP2</p> <p>MAN</p> <p>MNFS</p> <p>HOLD</p> <p>RUN</p> <p>TIMR</p>	<p>REMOTE SWITCH 2—This parameter is used to specify what action the recorder should take if digital input 2 for this channel goes ON (switch contact closed). The choices are the same as for REMSW1.</p>