E-210 USER`S GUIDE

1. DEFINITION

E-210 Series Universal Profile Controllers are designed to use On/Off and PID Control Techniques, by using new generation microcontrollers. The dimensions of the controllers are 96x96 mm confirming IEC/TR 60668 standard. The controllers have two 4-digit seven segment led displays each capable of displaying numeric values from -1999 to 9999 and 4-character alphanumeric values messages. The universal inputs (T/C, R/T, mV, mA) are configurable are measured with 16-bit resolution.

These electronic units, have high reading accuracy with high measurement sensivity, don't contain any loose mechanical parts, and provide limitless reliability. They are calibrated in order not to be defected by time and exterior factors. High input impedance, protection of the system from loss of signal, E-210 has two seperate, 4-digit, display to dislay process value and set values within the range of -1999 to 9999. For all industial applications for the measurement and control of; temperature pressure, level speed current-voltage, resistance and other physical features, also for areas such as; Iron-Steel, Cement Chemistry, Food, Plastic, Petrochemistry, Rafineries, Ceramics, Glass and industries this unit is ideal.

2. TECHNICAL FEATURES

Input Types	**Thermocouple (TC) :** B, E, J, K, L, N, R, S, T, U (Temperature Sensor) **Resistance Thermometre (RT):** Pt100 (Temperature Sensor) **Current:** 0-20 mA, 4-20 mA (Linear) **Voltage:** 0-50 mV, 0-1 V, 0.2-1 V (Linear)
Control Outputs	**Relay:** SPST-NO 250V AC, 5A **Current:** 0-20 mA, 4-20 mA (İsoleted) **Pulse:** 24V DC, 25 mA (for SSR)
Alarm Outputs	**Relay:** SPST-NO 250V AC, 5A
Display Type	2 x 4 digits 14mm 7 segment led display
Accuracy	**Thermocouple:** (%0.5 or 1 $^{\circ}$C of the displayed value) 1 digits max. **Pt-100:** (%0.5 or 1 $^{\circ}$C of the displayed value) 1 digits max. **Voltage/Current:** %0.5 FS 1 digit max.
A/D Converter	16 bits
D/A Converter	12 bits
Control Form	On/Off, PID
Operating Voltage	85-265 V AC / 85-375 V DC 20-60 V AC / 20-85 V DC
Power Consumption	7W (10 VA)
Operating Temperature	-10 $^{\circ}$C, +55 $^{\circ}$C (14 $^{\circ}$F, +131 $^{\circ}$F) (Without Condensation and Evaporation)
Storage Temperature	-25 $^{\circ}$C, +65 $^{\circ}$C (-13 $^{\circ}$F, +149 $^{\circ}$F) (Without Condensation and Evaporation)
Relay Mechanical Life	10.000.000 On-Off
Relay Electrical Life	>1.000.000 On-Off (1/10 of the load)
Memory	EEPROM (100.000 max. Write- erase)
Weight	430 g

3.ORDERING GUIDE

E-210-W-X-Y-Z

| W	Relay/SSR	X	Analog Output	Y	Communication	Z	Power Supply
2	2 Relay	0	No Analog Output	0	None	0	85-265 V AC / 85-375 V DC
3	3 Relay	1	1 Analog Output	1	RS 485	1	20-60 V AC / 20-85 V DC
4	4 Relay	2	2 Analog Output				
5	1 Relay, 1 Pulse for SSR						
6	2 Relay, 1 Pulse for SSR						
7	3 Relay, 1 Pulse for SSR						

4. DIMENSION

The outer dimension of E-210 are shown below in **Figure 4.1:**
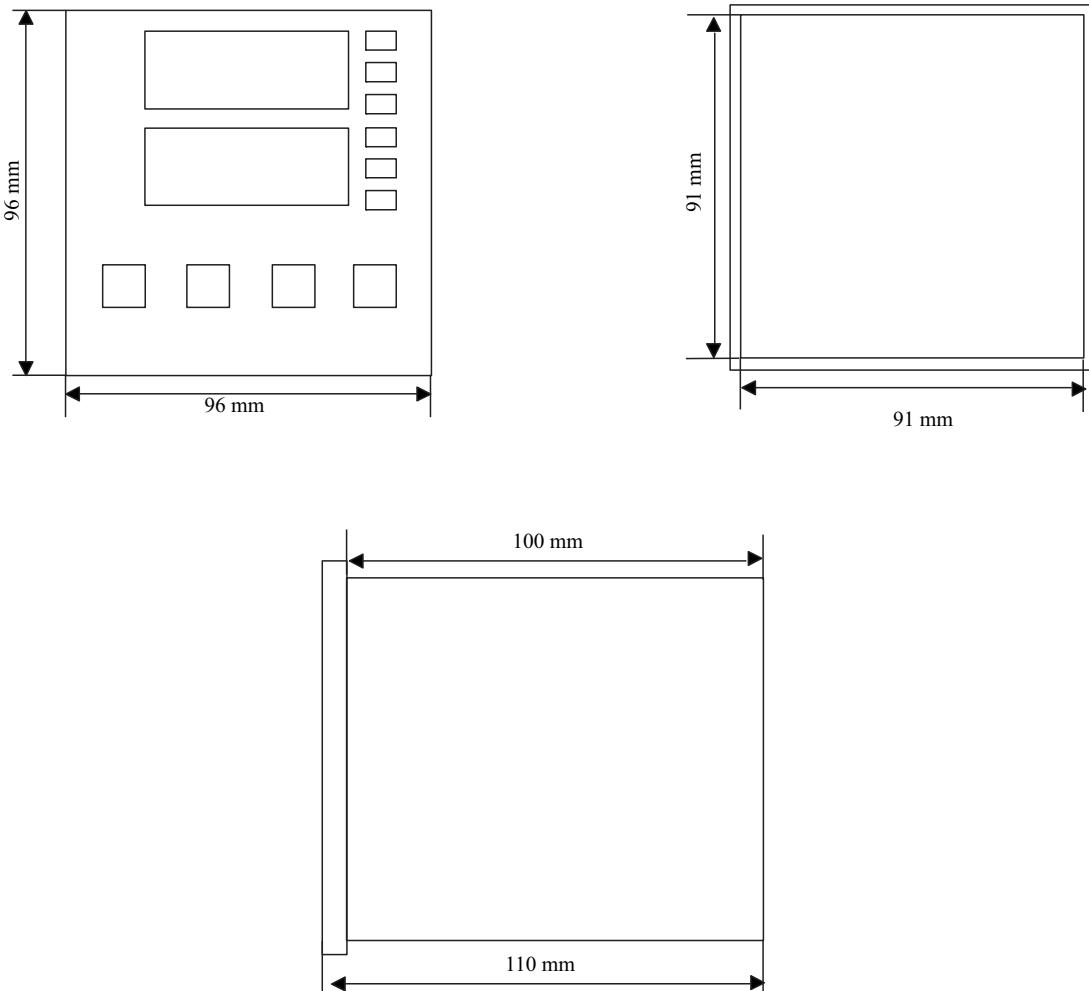
Figure 4.1

5.PANEL MOUNTING

Carefully locate the unit into its suitable space. Screw the clips into their suitable spaces located under and at the top of the unit. If more than one units are to be attached to the same panel, there should be at least 100mm space between the locations of the units side by side as shown below. In the case of closely atteched units, the increase in the temperature due to the units, should be considered carefully.
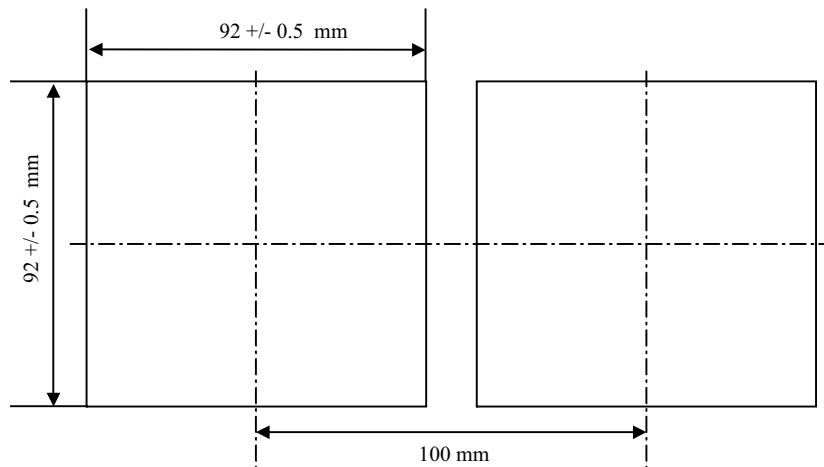
Figure 5.1

6. WARNINGS

☞ Do not touch the terminals when the unit is energized.

☞ Make sure that the unit is powered by the power source of instruments (i.e from an isolated 220 VAC transformers)

☞ Make sure to connect the High-Current and High-Voltage lines seperately from other lines.

☞ Keep the unit away from flamable gases, that could cause explotions.

☞ Any metal, entering the unit can cause unit to mulfunction or electrical shocks. Make sure no metal piece gets in the unit.

☞ The relay life differs according to the usage configuration. When the relays are old, their contacts could melt or born out.

☞ The configurations should be made according to the desired control type. Otherwise, malfunctioning units can cause accidents.

☞ Precautions should be taken incase of malfunctioning units. For example have an external alarm system for the temperature or pressure changes.

☞ Use the unit only in the specified area.

☞ The product life of this instrument is 10 years.

7.FRONT PANEL

The front panel of E-210 is as shown in **Figure 7.1**.

**R1 Led:** On when relay 1 is active.

R2 Led: On when relay 2 is active.

R3 Led: On when relay 3 is active.

R4 Led: On when relay 4 is active.

PR Led:.On when the unit is at programing mode.

MN Led: On when the unit is in manuel mode. Also during autotuning, this led is blinking,, stating the autotuning is in process .

Figure7.1

Upper Display: A 4 digit display shows, the instantaneous value and the errors during the process, parameters` names, in programming mode. Also passing through the menus, both displays are used.

Lower Display: A 4 digital display shows, the set value in automatic mode, the output percentage in manuel mode and the parameter values in programming mode.

✳ **Star Button,** used to exit the menus. When pressed together with ↩ programming starts. When the units is in PID mode, and not programming, pressing this button for every 3 seconds, changes from automatic and manuel modes. Also, not programming, pressing this button once resets the alarms.

↩ **Enter Button**, used to reach the menus. Also pressed with ✳ programming starts.

▼ **Down and** ▲ **Up Buttons** change the output and the parameter values. Also used to change between the displays. Pressed with ✳ , to save the calibration, to start and stop the program.
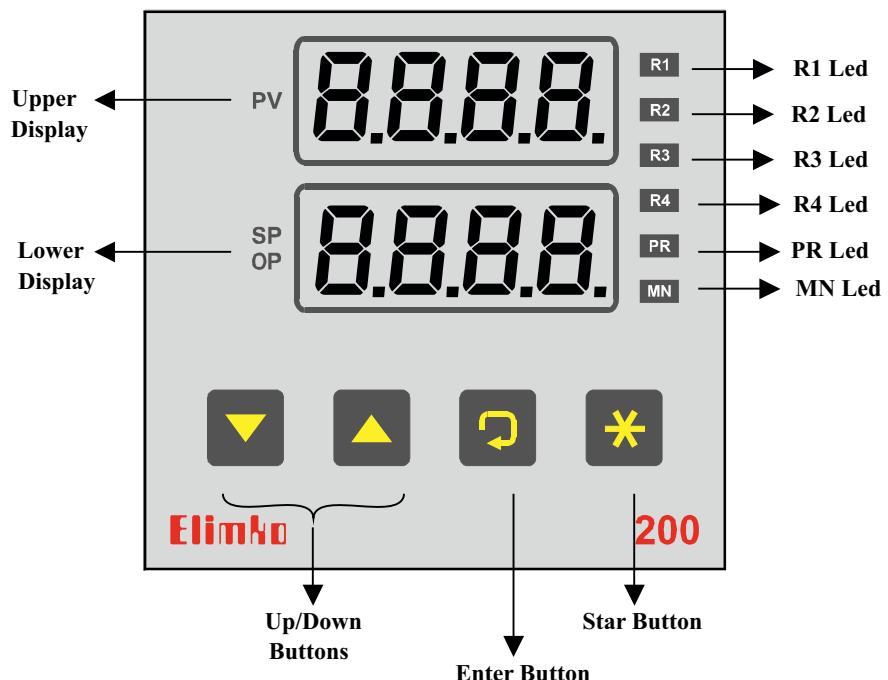
8.CONNECTION DIAGRAMS

The connection schemes for E-210 are as shown in **Figure 8.1** .
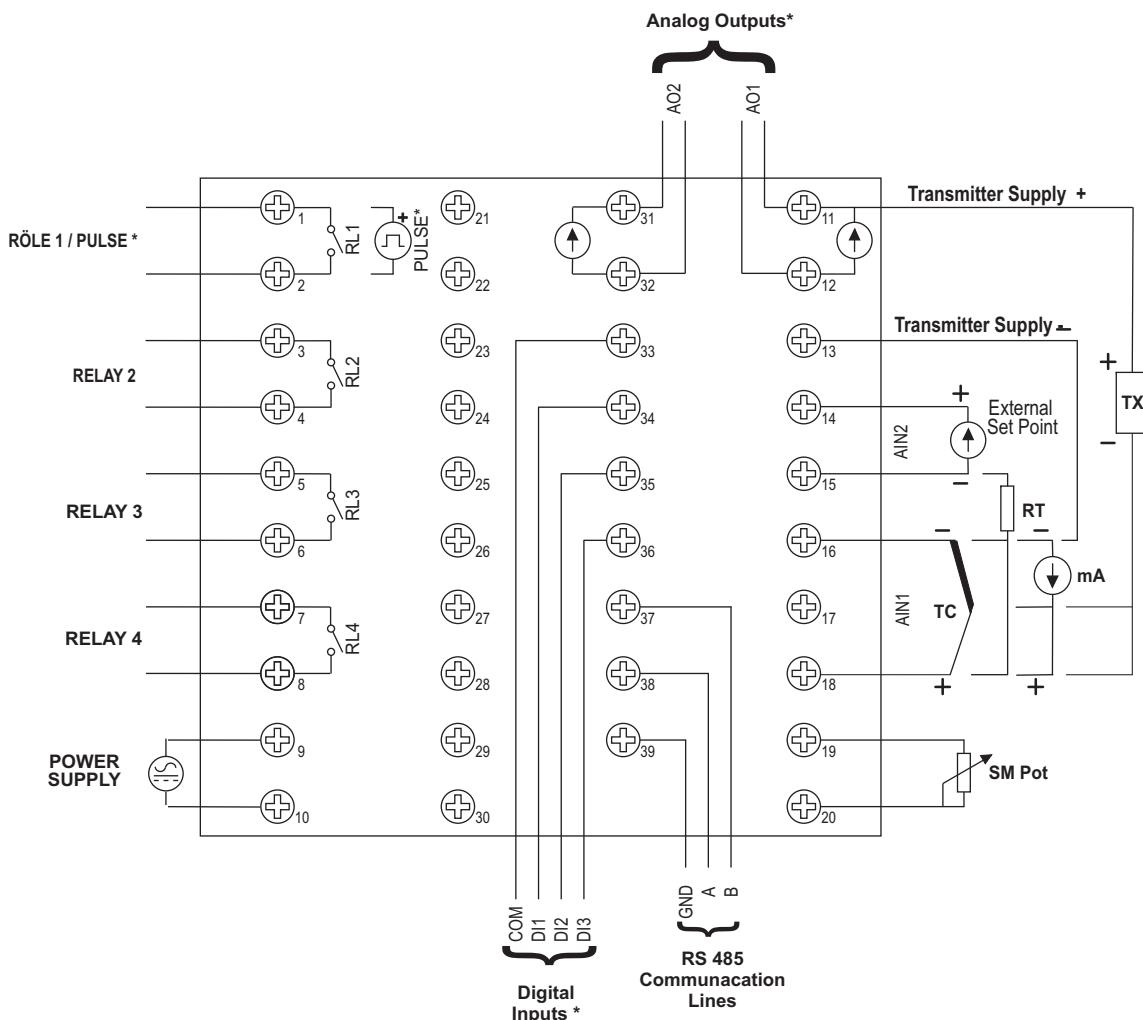
Figure 8.1

*Digital Input Connection
DI1: Automatic/Manuel mode selection
$SPSr$ =when $d InP$; $SEt I$, $SEt2$, $SEt3$ and $SEt4$ in the D12 and D13 $SEtP$ display. (Table 22)
$SPSr$ =when $PrFL$; DI2: Start and Stop operating D13:Hold and continue the operation.

*AO1, AO2 Analog Outputs, **Pulse outputs** and **Digital Inputs** are not isolated.

9.ERROR MESSAGES

Message	Meaning	What To Do
oPEn	The connection of the sensor is broken.	Check the sensor and the sensor connections.
UFL	The process value is below the sensor type-temperature interval.	Check the sensor and the input type specified by the *InP1* parameter.
oFL	The process value is above the sensor type- temperature interval.	
nnnn	The process value is above the value that can be displayed.	Check the analog value on the input connection and the scalar specified by the *dP*, *ZEro* and *SPAn* parameters.
uuuu	The process value is below the value that can be displayed.	

10. INPUT TYPE - MEASUREMENT RANGE

TEMPERATURE SENSORS

Sensor Type	Standart	Temperature Range	
		(°C)	(°F)
b Type B	IEC584-1	60, 1820	140, 3308
E Type E	IEC584-1	-200, 840	-328, 1544
J Type J	IEC584-1	-200, 1120	-328, 1562
k Type K	IEC584-1	-200, 1360	-328, 2480
L Type L	DIN43710	-200, 900	-328, 1652
n Type N	IEC584-1	-200, 1300	-328, 2372
r Type R	IEC584-1	-40, 1760	104, 3200
S Type S	IEC584-1	-40, 1760	104, 3200
t Type T	IEC584-1	-200, 400	-328, 752
U Type U	DIN43710	-200, 600	-328, 1112
Pt Pt100	IEC751	-200, 840	-328, 1544

LINEAR INPUTS

Type	Range
0A20 Current	0-20 mA DC
4A20 Current	4-20 mA DC
0u50 Voltage	0-50 mV DC
0.0u1 Voltage	0-1 V DC
0.2u1 Voltage	0.2-1 V DC

11. ALARM TYPES

The alarm types for E-210 are as given below; where **n** is the alarm number;

AntP	EXPLANATIONS		
	AnSP > 0	AnSP < 0	
Lo	Alarm State (graph, 0 / AnSP / PV)	Alarm State (graph, PV / AnSP / 0)	Lower Bias (Absolute)
HI	Alarm State (graph, 0 / AnSP / PV)	Alarm State (graph, PV / AnSP / 0)	Upper Bias (Absolute)
Lod	Alarm State (graph, 0 / SP / SP+AnSP / PV)	Alarm State (graph, 0 / SP+AnSP / SP / PV)	Lower Bias (Relative)
HId	Alarm State (graph, 0 / SP / SP+AnSP / PV)	Alarm State (graph, 0 / SP+AnSP / SP / PV)	Upper Bias (Relative)
Lob	Alarm State (graph, 0 / SP-AnSP / SP / SP+AnSP / PV)	Alarm State (graph, 0 / SP / PV)	Internal Band Alarm
HIb	Alarm State (graph, 0 / SP-AnSP / SP / SP+AnSP / PV)	Alarm State (graph, 0 / SP / PV)	Internal Band Alarm
oFF	Alarm function is cancelled when AntP parameter is oFF.		
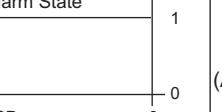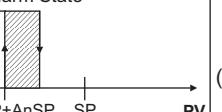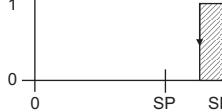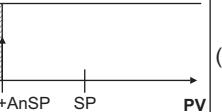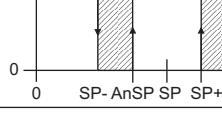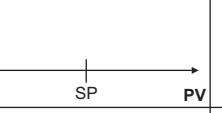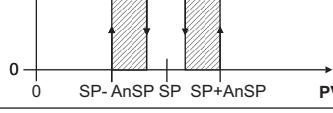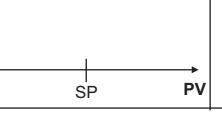
Shaded graphics show the hysteresis. AnHY
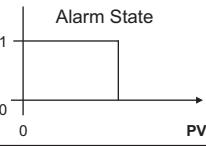
For Alarm State, "1" is for relay is active and "0" is for relay inactive. (Alarm State graph, 0 / PV)

12. AUTO-TUNE

Autotune can be done when the control type is PID. Before the process, the set value and a small hysteresis value (to stop unstability) should be specified by the user.* (**Figure 12.1**) To start the Auto-tuning process, the Rt parameters should be on.
Time taken for auto-tuning, changes realted to
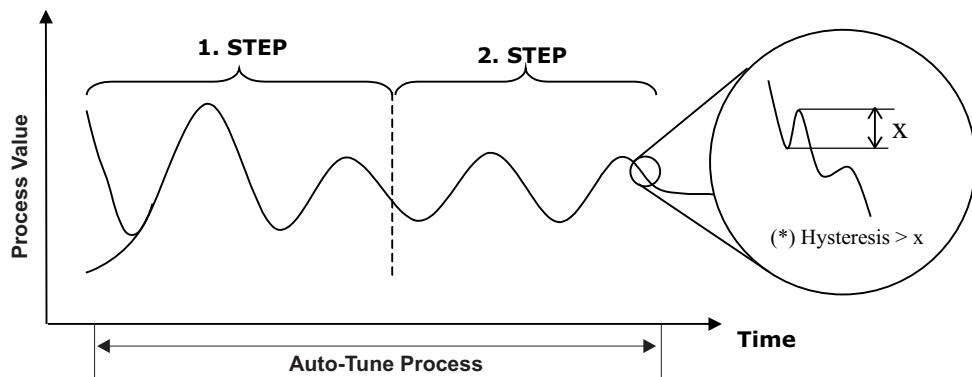
Figure 12.1

the capacity of the system that's controlled. During this process the MN Led and the Lower Display in front of the panel blinks. The $Pb-1$ $Pb-2$ and dt parameters specified by auto-tuning, are written and saved in EEPROM, and Rt parameter switches oF. If the Rt parameter is made oFF during the auto-tuning, the process is cancelled. In the case of cancelled auto-tuning, the keeps working with the previously selected $Pb-1$, $Pb-2$, It, dt values. Auto-tune process can also be observed from **Figure 12.1**.

13. STEP-CONTROL PROGRAMS

E-210 control instrument, accept as much as 100 steps, containing time and target set values, and 6 different warnings can be assigned (A, B, C, D, O, H) to these steps. If desired these warnings can be obtained over relays. 10 separete programs can be defined over these 100 steps, by entering the starting and the ending step numbers. A Program-Execution process, begins with the starting step and increasing, continues until the ending step number. If the ending step number is less than the starting step number, then the step number fallows 0 after 99. Steps with 0.0 time are neglected. When running, pressing ▼ key, program holds and pressing ▲ key program resumes. When holding, lower display blinks, indicating system is in Hold State.
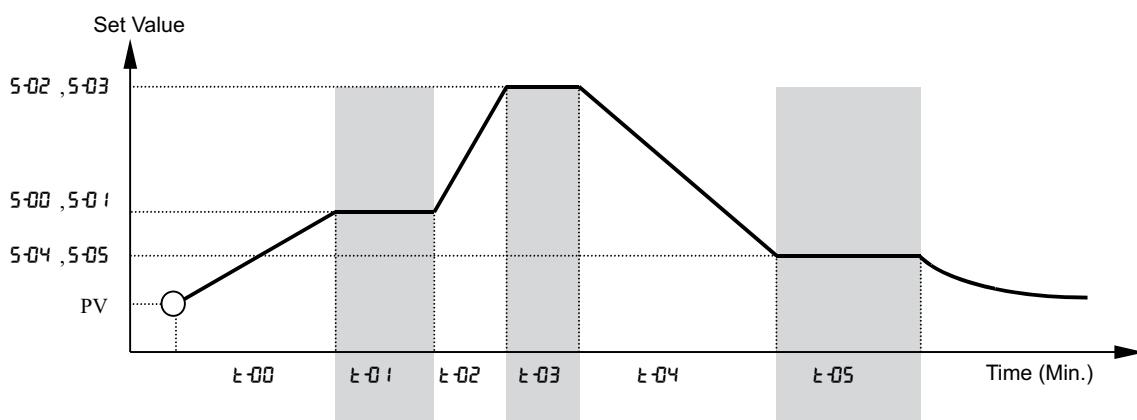

Figure13.1

The explanations for the Step-Control Program Parameters are given below. The usage of these parameters are shown in **Figure 13.1**.

- The "$5P5r$" parameter in $5Et5$ Page should be set to $PrFL$, in order to create and execute the Step-Control Programs.
- The "$5Gdt$" Parameter in $5Gno$ Page, can take values of 00-99 and shows the step numbers to be programmed.
- The "t-n" parameter in $5Gdt$ Page determines the step type. Can have the values of 0.0-999.9 min.
- The "5-n" parameter in $5Gdt$ Page, determines the step ending number. Can have a value between the number determined by $5PLL$ and $5PHL$ parameters.
- The "A-n, b-n, C-n, d-n" parameters in $5Gdt$ Page determines if the AL-A, AL-b, AL-C, AL-d alarms should be active during the step time. Can be set on or oFF.
- The "o-n" parameter in the $5Gdt$ Page, determines if the difference between the process value and the set value is larger than HYS, and if the AL-o alarm should be set in the Hold State. Can be set oFF or on.
- The "H-n" parameter in the $5Gdt$ Page, determines if step beginning hold state should be achived with AL-H alarm set. Can be set oFF or on.
- The "55-m" parameter in the $Prdt$ Page, determines the step-beginning number of the program, with values 0 to 99.
- The "$E5$-m" parameter in $Prdt$ Page, determines the step-end number, with values 0 to 99.

14. FEEDBACK VALVE CONTROL
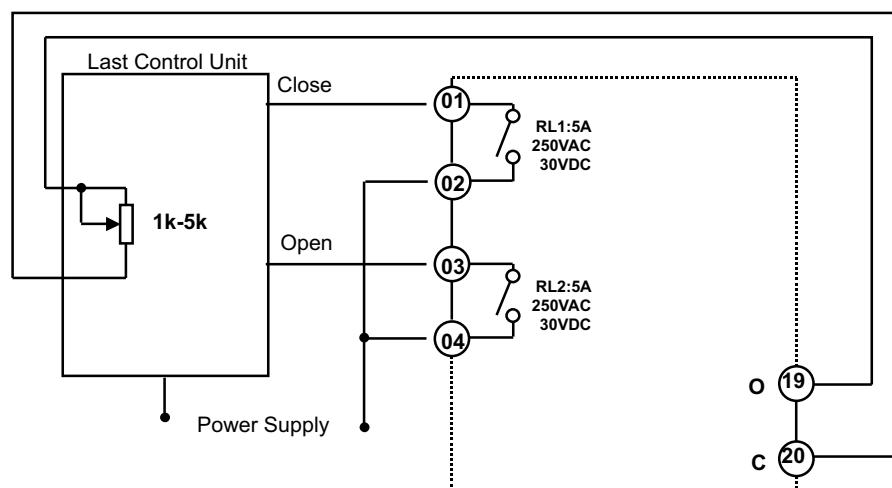
Figure14.1

As shown in **Figure 14.1**, control of the feedback controlled valve can be made, with a servomotor connected to the relays and the 19-20th clemenses on E-210, and a potantiometer(1k-5k)

The parameters of this control, are the `CtYP`, `dbnd`, `SruL` and `SruH` parameters, in the output configurations page `oCnF`. These parameters are as follows;

● The `CtYP` parameter should be set to `PFb`, for this control.
● The `dbnd` parameter is used to prevent relays from opening and closing frequently, during the control. Its unit is given as a percentage of the location data.Its value determines the Death Band value for both to stay open.
● The `SruL` parameter, keeps the location data of the controlled valve in the fully closed state. With this parameter on the display, ▼ key starts the action in motor-active direction. In the fully closed state, the value shown on the display can be saved by pressing ✳▼ keys
● The `SruH` parameters, keeps the location data of the controlled valve in the fully open state. With this parameter on the display, ▲ key stats the action in the motor-active direction. In the fully active state, the value shown on the display can be saved by pressing ✳▼ keys.

## 15.OPEN-LOOP VALVE CONTROL
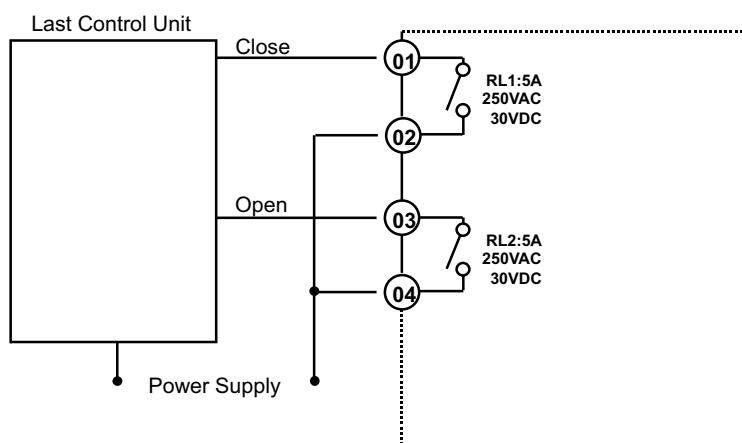
Figure 15.1

Using the relays on E-210, an open-loop valve control can be made, as shown in **Figure 15.1**. Parameters realted with this control, are the `CtYP`, `dbnd` ve `trtn` parameters in the `oCnF` Page. The explanation for the parameters are;

● For this control to be made, the `CtYP` parameters should be set to `bnd`.
● The `dbnd` parameter is used to prevent th relays from opening and closing frequently, during the control. Its unit is given as percentage of the location data. Its value determines the Death Band value for both relays to stay open.
● The `trtn` parameter is the time, in which the valve switches to full-closed from full-open state, when energized. Its unit is seconds.

16.OPERATION AND CONFİGURATION PAGES

When first starts, upper display shows the process value, lower display shows the set value or another control parameter, depending on the working mode. This screen is called Operation Screen. Together with the Operating Screen, the frequently used parameters are called the Operation Page. Can be reached with the ⏎ key. The parameters for main functions are determined in Configuration Page. Input for these pages are as shown below;
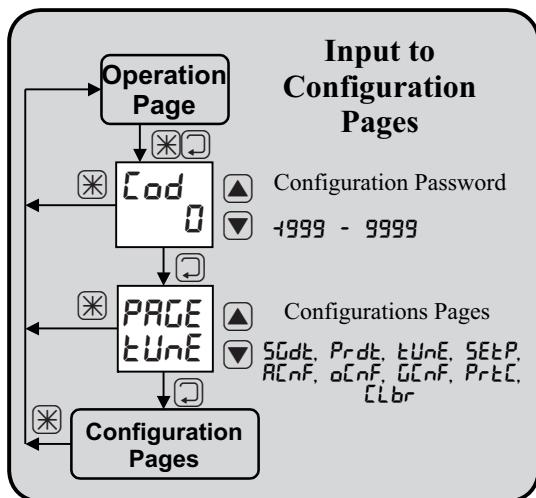
Note: Password for the configuration, is set to "10", as a factory setting.

Configuration Pages:

𝟻𝙶𝚍𝚝 = Step Determination Page
𝙿𝚛𝚍𝚝 = Program Determination Page
𝚝𝚄𝚗𝙴 = PID Tuning Page
𝚂𝙴𝚝𝙿 = Set Points Configuration Page
𝙰𝙲𝚗𝙵 = Alarm Configuration Page
𝚘𝙲𝚗𝙵 = Control and Output Units Configuration Page
𝙶𝙲𝚗𝙵 = General Configuration Page
𝙿𝚛𝚝𝙲 = Security Adjustments Page
𝙲𝙻𝚋𝚛 = Calibration Page

The explanations are given below.

Note: The EU (Engineering Unit) used in the tables, Thermocouples and resistance thermometerinput type units °C or °F, and for linear inputs types, are the controlles measurement unit.

AUTOMATIC-MODE Operation Page

Display	Explanation	Unit	Observation Conditions	Key	Key Function / Setting Interval
23.4	Process Value (**Operation Screen**) [1]	EU			
0.0	Control Set Point	EU		▼ / ▲	$SPLL$ - $SPHL$ [2]
oUt			$CtYP \neq nonE$		
0.0	Control Output Value [3]	%			
PSP			$SPrr \neq oFF$		
0.0	Progressive Set Point	EU			
A1SP			$A1tP \neq oFF$		
0.0	Alarm-1 Set Point	EU		▼ / ▲	-1999 - 9999
A2SP			$A2tP \neq oFF$		
0.0	Alarm-2 Set Point	EU		▼ / ▲	-1999 - 9999
A3SP			$A3tP \neq oFF$		
0.0	Alarm-3 Set Point	EU		▼ / ▲	-1999 - 9999
A4SP			$A4tP \neq oFF$		
0.0	Alarm-4 Set Point	EU		▼ / ▲	-1999 - 9999

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s⏎ returns to the Operation-Screen.

[1] In the Operation Screen,
Pressing ✳ removes the $AL-H$, $AL-E$ warnings.
If ($mnPr = Enb$) and ✳ is pressed during at least 3 s, Manuel-Mode is entered.

[2] If the Set-Point-Source is external ($SPSr \neq Int$), this adjustment is not valid.

[3] With the Control-Type as open-loop valve control ($CtYP = bnd$), this screen is used for Valve-Direction, instead of Control-Output value.
(StP = Valve inactive , CLS = Closing Valve , oPn = Opening Valve)

MANUEL-MODE Operation Page

Display	Explanation	Unit	Observation Conditions	Key	Key Function /Setting Interval
23.4	Process Value **(Operation-Screen)** [1]	EU	$CtYP = SCo$ SingleSided (+) PID Control		
50.0	Control Output Value	%		▼ / ▲	$SoLL - SoHL$
23.4	Process Value **(Operation-Screen)** [1]	EU	$CtYP = dCo$ Double Sided(+/-) PID Control		
50.0	Control Output Value	%		▼ / ▲	$doLL - doHL$
23.4	Process Value **(Operation-Screen)** [1]	EU	$CtYP = PFb$ Feedback Valve Control		
50.0	Control Output Value	%		▼ / ▲	$SoLL - SoHL$
23.4	Process Value **(Operation-Screen)** [1]	EU	$CtYP = bnd$ Open-Loop Valve Control		
StP	Valve Direction [2]			▼ / ▲	Valve-Close/ Valve-Open
A1SP					
0.0	Alarm-1 Set Point	EU	$A1tP \neq oFF$	▼ / ▲	$-1999 - 9999$
A2SP					
0.0	Alarm-2 Set Point	EU	$A2tP \neq oFF$	▼ / ▲	$-1999 - 9999$
A3SP					
0.0	Alarm-3 Set Point	EU	$A3tP \neq oFF$	▼ / ▲	$-1999 - 9999$
A4SP					
0.0	Alarm-4 Set Point	EU	$A4tP \neq oFF$	▼ / ▲	$-1999 - 9999$

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s⏎ returns to the Operation-Screen.

[1] In the Operation-Screen,
Pressing ✳ removes the $AL-H$, $AL-E$ warnings and locked alarms
While in Manuel-Mode, pressing ✳ during at least 3 s reverts to Automatic-Mode.

[2] StP = Valve inactive, CLS = Closing Valve, oPn = Opening Valve

PROFILE-CONTROL Operation Page (Program Not Running)

Display	Explanation	Unit	Observation Conditions	Key	Key Function /Setting Interval
`23.4`	Process Value (**Operation-Screen**)[1]	EU		⌘▼	Program-Start
`Pr-0`	Number of the Program to be running			▼ / ▲	`0 - 9`
`rPt`					
`1`	Program Repeat Number (For Continuous enter `Cont`)			▼ / ▲	`Cont. 1 - 250`
`A1SP`			`A1tP ≠ oFF`		
`0.0`	Alarm-1 Set Point	EU		▼ / ▲	`-199.9 - 999.9`
`A2SP`			`A2tP ≠ oFF`		
`0.0`	Alarm-2 Set Point	EU		▼ / ▲	`-199.9 - 999.9`
`A3SP`			`A3tP ≠ oFF`		
`0.0`	Alarm-3 Set Point	EU		▼ / ▲	`-199.9 - 999.9`
`A4SP`			`A4tP ≠ oFF`		
`0.0`	Alarm-4 Set Point	EU		▼ / ▲	`-199.9 - 999.9`

Whitin this screen, pressing ⊡ button, changes to the next screen, pressing ⌘ or 2s⊡ returns to the Operation-Screen.

[1] In the Operation-Screen peratör,
Pressing ⌘ removes the `AL-H`, `AL-E` warnings and locked alarms.
If `ñnPr=Enb` and ⌘ is pressed during at least 3 s, Manuel- Mode is entered.

PROFILE-CONTROL Operation Page (Program is running)

| Display	Explanation	Unit	Observation Condition	Key	Key Function /Setting Interval
23.4	Process Value (**Operation-Screen**) [1]	EU		✳▼	Program-Stop
0.0	Control Set Point	EU		▼ / ▲	Program-Pause/ Continue
5-00	Step Number in Process			✳▼ / ✳▲	Step-Begin / Next-Step
0.1	Time Left to Step-End	dk		▼ / ▲	Program-Hold /Continue
APrG					
0	Program Number in Process				
rrPt					
1	Remaining Repeat Number ($Cont$ = Continuous)				
oUt					
0.0	Control Output Value [2]	%			
PSP					
0.0	Progressive Set Point	EU	$SPrr \neq oFF$		
A1SP					
0.0	Alarm-1 Set Point	EU	$A1tP \neq oFF$	▼ / ▲	-199.9 - 999.9
A2SP					
0.0	Alarm-2 Set Point	EU	$A2tP \neq oFF$	▼ / ▲	-199.9 - 999.9
A3SP					
0.0	Alarm-3 Set Point	EU	$A3tP \neq oFF$	▼ / ▲	-199.9 - 999.9
A4SP					
0.0	Alarm-4 Set Point	EU	$A4tP \neq oFF$	▼ / ▲	-199.9 - 999.9

Within this screen, pressing ⬚ button, changes to the next screen, pressing ✳ or 2s ⬚ returns to the Operation-Screen.

[1] <u>In the Operation-Screen ,</u>
Pressing ✳ removes the $AL-H$, $AL-E$ warnings and locked alarms.
If ($mnPr = Enb$) and ✳ is pressed during at least 3 s, Manuel-Mode is entered.

[2] With Control-Type as open-loop valve control ($CtYP = bnd$), this screen is used for Valve-Direction, instead of Control-Output value.
(StP = Valve inactive , CLS = Closing Valve , oPn =Opening Valve)

Step Determination Page($PAGE = SGdt$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function / Setting Interval
$SGno$ 0	Step Number to be Programmed		$SPSr = PrFL$	▼ / ▲	$0 - 99$
$t-00$ 0.1	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	Step Time (Enter 00 to cancel the step)	Min.		▼ / ▲	$00 - 9999$
$S-00$ 0.0	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	Step-end Set Value	EU		▼ / ▲	$SPLL - SPHL$
$A-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	"$RL-A$" Alarm, during the Step	Table-7		▼ / ▲	Table-7
$b-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	"$RL-b$" Alarm, during the Step	Table-7		▼ / ▲	Table-7
$C-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	"$RL-C$" Alarm, during the Step	Table-7		▼ / ▲	Table-7
$d-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	"$RL-d$" Alarm, during the Step	Table-7		▼ / ▲	Table-7
$o-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	Hold in case of Excess Value and give "$RL-o$" Alarm	Table-7		▼ / ▲	Table-7
$H-00$ oFF	Step Number		$SPSr = PrFL$	✳▼ / ✳▲	$0 - 99$
	Hold with Step-Begin and give "$RL-H$" Alarm	Table-7		▼ / ▲	Table-7

Within this screen, pressing ⟐ button, changes to the next screen, pressing 2s⟐ or ✳ returns to the Operation-Screen
While this parameter is selected, pressing ⟐ increments the $SGno$ and returns to $SGno$ parameters.

Program Determination Page ($PAGE = Prdt$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function / Setting Interval
55-0 0	Program-0 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-0 0	Program-0 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-1 0	Program-1 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-1 0	Program-1 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-2 0	Program-2 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-2 0	Program-2 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-3 0	Program-3 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-3 0	Program-3 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-4 0	Program-4 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-4 0	Program-4 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-5 0	Program-5 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-5 0	Program-5 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-6 0	Program-6 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-6 0	Program-6 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-7 0	Program-7 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-7 0	Program-7 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-8 0	Program-8 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-8 0	Program-8 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
55-9 0	Program-9 Start Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99
E5-9 0	Program-9 End Step Number		$SPSr = PrFL$	▼ / ▲	0 - 99

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s ⏎ returns to the Operation-Screen.

PID Tuning Page ($PAGE = tUnE$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function /Setting Interval
At oFF	Auto-Tune [1]	Table-7	$CtYP \neq nonE$ $CtYP \neq bnd$	▼ / ▲	Table-7 [1]
$Pb-1$ 20.0	Proportional-Band-1 (For "+" Directed Control Outputs)	EU	$CtYP \neq nonE$	▼ / ▲	$0.1 - 999.9$
$Pb-2$ 20.0	Proportional-Band-2 (For "-" Directed Control Output)	EU	$CtYP = dCo$	▼ / ▲	$0.1 - 999.9$
It 28	İntegral Time (If "oFF" integral is inactive)	s	$CtYP \neq nonE$	▼ / ▲	$oFF, 1 - 9999$
dt 7	Derivative Time (If " oFF", Derivative is inactive)	s	$CtYP \neq nonE$	▼ / ▲	$oFF, 1 - 2500$
HYS 0.1	Hysteresis	EU		▼ / ▲	$0.0 - 999.9$

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s ⏎ returns to the Operation-Screen.

[1]   Auto-Tune Function can not start in Manuel-Mode.

Elimko

Set Points Configuration Page (*PAGE* = *SEtP*)

Display	Explanation	Unit	Observation Conditions	Key	Key Function/ Setting Interval
SPSr *Int*	Set Point Source	Table-13		▼ / ▲	Table-13
SPLL *-199.9*	Set Point Lower Limit	EU		▼ / ▲	*-199.9 - SPHL*
SPHL *999.9*	Set Point Upper Limit	EU		▼ / ▲	*SPLL - 999.9*
SPrr *0.0*	Set Point Ramping Rate (For fastest change, enter " *oFF* ")	EU/min		▼ / ▲	*oFF, 0.1 - 60.0*
SEt1 *0.0*	1.Multiple Set Point	EU	*SPSr = dInP*	▼ / ▲	*SPLL - SPHL*
SEt2 *0.0*	2.Multiple Set Point	EU	*SPSr = dInP*	▼ / ▲	*SPLL - SPHL*
SEt3 *0.0*	3.Multiple Set Point	EU	*SPSr = dInP*	▼ / ▲	*SPLL - SPHL*
SEt4 *0.0*	4.Multiple Set Point	EU	*SPSr = dInP*	▼ / ▲	*SPLL - SPHL*
PonP *0*	Profile-Control Power-On Behaviour	Table-21	*SPSr = PrFL*	▼ / ▲	Table-21

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s ⏎ returns to the Operation-Screen.

Alarm Configuration Page ($PAGE = ACnF$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function /Setting Interval
A1tP oFF	Alarm-1 Type	Table-11		▼ / ▲	Table-11
A1HY 0.5	Alarm-1 Hysteresis	EU	$A1tP \neq oFF$	▼ / ▲	0.0 - 999.9
A1Lt dSb	Alarm-1 Lock	Table-6	$A1tP \neq oFF$	▼ / ▲	Table-6
A2tP oFF	Alarm-2 Type	Table-11		▼ / ▲	Table-11
A2HY 0.5	Alarm-2 Hysteresis	EU	$A2tP \neq oFF$	▼ / ▲	0.0 - 999.9
A2Lt dSb	Alarm-2 Lock	Tablo-6	$A2tP \neq oFF$	▼ / ▲	Table-6
A3tP oFF	Alarm-3 Type	Table-11		▼ / ▲	Table-11
A3HY 0.5	Alarm-3 Hysteresis	EU	$A3tP \neq oFF$	▼ / ▲	0.0 - 999.9
A3Lt dSb	Alarm-3 Lock	Table-6	$A3tP \neq oFF$	▼ / ▲	Table-6
A4tP oFF	Alarm-4 Type	Tablo-11		▼ / ▲	Table-11
A4HY 0.5	Alarm-4 Hysteresis	EU	$A4tP \neq oFF$	▼ / ▲	0.0 - 999.9
A4Lt dSb	Alarm-4 Lock	Table-6	$A4tP \neq oFF$	▼ / ▲	Table-6

Within this screen, pressing ⏎ button, changes to the next screen, pressing ✳ or 2s ⏎ returns to the Operation-Screen.

Control and Output Unit Configuration Page ($PAGE = oCnF$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function / Setting Interval
CtYP SCo	Control Type	Table-12		▼ / ▲	Table-12
CFrm rEu	Control Form	Table-8	$CtYP \neq nonE$	▼ / ▲	Table-8
CPrd 2	Control Period	s	$CtYP \neq nonE$	▼ / ▲	1 - 250
mnPr dSb	Manuel Operation Permission	Table-6	$CtYP \neq nonE$	▼ / ▲	Table-6
trtm 100	Motor Valve Travel Time	s	$CtYP = bnd$	▼ / ▲	10 - 2500
dbnd 0.5	Control Output Death Band	%	$CtYP \neq nonE$	▼ / ▲	0.1 - 25.0
SoLL 0.0	Single Sided (+) Control Output Lower Limit	%	$CtYP \neq nonE$ $CtYP \neq dCo$	▼ / ▲	0.0 - Somr
SoHL 100.0	Single Sided (+) Control Output Upper Limit	%	$CtYP \neq nonE$ $CtYP \neq dCo$	▼ / ▲	Somr - 100.0
Somr 50.0	Single Sided (+) Control Output Manuel-Reset Value	%	$CtYP \neq nonE$ $CtYP \neq dCo$	▼ / ▲	SoLL - SoHL
doLL -100.0	Double Sided (+/-) Control Output Lower Limit	%	$CtYP = dCo$	▼ / ▲	-100.0 - domr
doHL 100.0	Double Sided (+/-) Control Output Upper Limit	%	$CtYP = dCo$	▼ / ▲	domr - 100.0
domr 0.0	Double Sided (+/-) Control Output Manuel-Reset Value	%	$CtYP = dCo$	▼ / ▲	doLL - doHL
PonC 0	PID Control Power-On Behaviour	Table-20	$CtYP \neq nonE$	▼ / ▲	Table-20
rL1d Co-1	1.Relay (RL1) Function	Table-10		▼ / ▲	Table-10
rL2d Co-2	2.Relay (RL2) Function	Table-10		▼ / ▲	Table-10
rL3d AL-3	3.Relay (RL3) Function	Table-10		▼ / ▲	Table-10
rL4d AL-4	4.Relay (RL4) Function	Table-10		▼ / ▲	Table-10
Ao1d Co-1	1.Analog Output (AO1) Function	Table-14		▼ / ▲	Table-14
Ao2d Co-2	2.Analog Output (AO2) Function	Table-14		▼ / ▲	Table-14
Ao1r 4-20	1.Analog Output (AO1) Scalar	Table-15		▼ / ▲	Table-15
Ao2r 4-20	2.Analog Output (AO2) Scalar	Table-15		▼ / ▲	Table-15
SruL 1889	Motor-Valve Fully-Closed Position		$CtYP = PFb$	✳▼ ▼ / ▲	Save Position Valve-Close / Valve-Open
SruH 3756	Motor-Valve Fully-Open Position		$CtYP = PFb$	✳▼ ▼ / ▲	Save Position Valve-Close / Valve-Open

Within this screen, pressing ⬚ button, changes to the next screen, pressing ✳ or 2s ⬚ returns to the Operation-Screen.

General Configuration Page (PAGE = GCnF)

Display	Explanation	Unit	Observation Conditions	Key	Key Function /Setting Interval
InP1 r	1.Analog Input (AIN1) Type (For Process Value Measurement)	Table-17		▼ / ▲	Table-17
InP2 4A20	2.Analog Input (AIN2) Type (External Set Point Input)	Table-5		▼ / ▲	Table-5
dP 1	Measurement Decimal Point (DP)[(1)]			▼ / ▲	0 - 3
2Ero 0.0	Analog Input Scale Lower Value (Linear Input Types)	EU		▼ / ▲	-1999 - 9999
SPAn 400.0	Analog Input Scale Upper Value (Linear Input Types)	EU		▼ / ▲	-1999 - 9999
trLL 0.0	Tramsmitter Scale Lower Value	EU		▼ / ▲	-1999 - trHL
trHL 400.0	Transmitter Scale Upper Value	EU		▼ / ▲	trLL - 9999
Unit °C	Temperature Unit	Table-9	InP1 = TC / RT	▼ / ▲	Table-9
oFSt 0.0	Temperature Offset Value	EU	InP1 = TC / RT	▼ / ▲	-100.0 - 100.0
FLtr 0.5	Measurement Filter Coefficient	EU		▼ / ▲	0.1 - 10.0
Snbr H1	Sensor Broken Behaviour	Table-4		▼ / ▲	Table-4
AdrS 1	Communication Address			▼ / ▲	1 - 127
brtE 4.8	Bound Rate (4.8, 9.6, 19.2, 38.4)	Kb/s		▼ / ▲	4.8, 9.6, 19.2, 38.4
PrtY EunE	Parity	Table-16		▼ / ▲	Table-16

Within this screen, pressing ⊡ button, changes to the next screen, pressing ⊛ or 2s ⊡ returns to the Operation-Screen.

[(1)] Measurement Decimal Point (DP) is specified by the dP Parameter.But
If 1.Analog Input Type (InP1) is TC or RT and the dP parameter is greater than "1","(DP) = 1" assumed.
When the dP Parameter is changed, all the parameters with EU unit should be readjusted.

Security Adjustments Page ($PAGE = PrtC$)

Display	Explanation	Unit	Observation Conditions	Key	Key Function / Setting Interval
SCod 10	Configuration Password Set Point			▼ / ▲	-1999 - 9999
Artn oFF	Menu Auto-Exit Time (cancelled if oFF)	s		▼ / ▲	oFF, 5 - 25
dPrL 5	Operator, Configuration Follow Level	Table-18		▼ / ▲	Table-18
APrL 2	Operator, Configuration Change Level	Table-19		▼ / ▲	Table-19
CPrL dSb	Calibration Page Input Permission	Table-6		▼ / ▲	Table-6
FCSt oFF	Return to Factory Settings	Table-7		✳▼ / ▼ / ▲	Approval / Table-7

Within this screen, pressing ⊡ button, changes to the next screen, pressing ✳ or 2s ⊡ returns to the Operation-Screen.

Elimko

E-210 Communication Data

Address	In Short	Explanation	Unit	Multiplier	Adjustment Permit	Min.	Max.
0		Status	Table-1		No	0	0
1		Reserve			No	0	0
2		Process Value	EU	10^DP	No	0	0
3	PSP	Progressive Set Point	EU	10^DP	No	0	0
4	APrG	Active Program Number			No	0	0
5	rrPt	Remaining Repeat Number (0 = Continuous)		10^DP	No	0	0
6		Active Step Number			No	0	0
7		Step-End Time	Min.	10	No	0	0
8		Measurement Decimal Point			No	0	0
9	SPSr	Set Point Source	Table-13		No	0	0
10	CtYP	Control Type	Table-12		No	0	0
11	oUt	Control Output Value	%	10	Yes	-1000	1000
12		Control Set Point	EU	10^DP	Yes	-1999	9999
13	At	Auto-Tune	Table-7		Yes	0	1
14		Program Number to be Running			Yes	0	9
15	rPt	Program Repeat Number (For Continuous enter "0")			Yes	0	250
16	SS-0	Program-0 Beginning Step Number			Yes	0	99
17	ES-0	Program-0 Last Step Number			Yes	0	99
18	SS-1	Program-1 Beginning Step Number			Yes	0	99
19	ES-1	Program-1 Last Step Number			Yes	0	99
20	SS-2	Program-2 Beginning Step Number			Yes	0	99
21	ES-2	Program-2 Last Step Number			Yes	0	99
22	SS-3	Program-3 Beginning Step Number			Yes	0	99
23	ES-3	Program-3 Last Step Number			Yes	0	99
24	SS-4	Program-4 Beginning Step Numberı			Yes	0	99
25	ES-4	Program-4 Last Step Number			Yes	0	99
26	SS-5	Program-5 Beginning Step Number			Yes	0	99
27	ES-5	Program-5 Last Step Number			Yes	0	99
28	SS-6	Program-6 Beginning Step Number			Yes	0	99
29	ES-6	Program-6 Last Step Number			Yes	0	99
30	SS-7	Program-7 Beginning Step Number			Yes	0	99
31	ES-7	Program-7 Last Step Number			Yes	0	99
32	SS-8	Program-8 Beginning Step Number			Yes	0	99
33	ES-8	Program-8 Last Step Number			Yes	0	99
34	SS-9	Program-9 Beginning Step Number			Yes	0	99
35	ES-9	Program-9 Last Step Number			Yes	0	99
36	Pb-1	Proportional Band-1 ("+" Directed Control Output)	EU	10^DP	Yes	1	9999
37	Pb-2	Proportional Band-2 ("-" Directed Control Output)	EU	10^DP	Yes	1	9999
38	It	Time of Integral (If "0", Integral is inactive)	s		Yes	0	9999
39	dt	Time of Derivative (If "0", Derivative is inactive)	s		Yes	0	2500
40	HYS	Hysteresis	EU	10^DP	Yes	0	9999
41	SPSr	Set Point Source	Table-13		Yes	0	3
42	SPLL	Set Point Lower Limit	EU	10^DP	Yes	-1999	9999
43	SPHL	Set Point Upper Limit	EU	10^DP	Yes	-1999	9999
44	SPrr	Set Point Ramping Rate (For Fastest 0 = En Hızlı)	EU/dk	10^DP	Yes	0	600
45	mSP1	1.Multiple Set Point	EU	10^DP	Yes	-1999	9999
46	mSP2	2.Multiple Set Point	EU	10^DP	Yes	-1999	9999
47	mSP3	3.Multiple Set Point	EU	10^DP	Yes	-1999	9999
48	mSP4	4.Multiple Set Point	EU	10^DP	Yes	-1999	9999
49	PonP	Profile-Control Power-On Behaviour	Table-21		Yes	0	4

Address	In Short	Explanation	Unit	Multiple	Adjustment Permit	Min.	Max.
50	A1tP	Alarm-1 Type	Table-11		Yes	0	6
51	A1HY	Alarm "1" Hysteresis Value	EU	10^DP	Yes	0	9999
52	A1Lt	Alarm "1" Lock	Table-6		Yes	0	1
53	A1SP	Alarm "1" Set Point	EU	10^DP	Yes	-1999	9999
54	A2tP	Alarm "2" Type	Table-11		Yes	0	6
55	A2HY	Alarm "2" Hysteresis Value	EU	10^DP	Yes	0	9999
56	A2Lt	Alarm "2" Lock	Table-6		Yes	0	1
57	A2SP	Alarm "2" Set Point	EU	10^DP	Yes	-1999	9999
58	A3tP	Alarm "3" Type	Table-11		Yes	0	6
59	A3HY	Alarm "3" Hysteresis Value	EU	10^DP	Yes	0	9999
60	A3Lt	Alarm "3" Lock	Table-6		Yes	0	1
61	A3SP	Alarm "3" Set Point	EU	10^DP	Yes	-1999	9999
62	A4tP	Alarm "4" Type	Table-11		Yes	0	6
63	A4HY	Alarm "4" Hysteresis Value	EU	10^DP	Yes	0	9999
64	A4Lt	Alarm "4" Lock	Table-6		Yes	0	1
65	A4SP	Alarm "4" Set Point	EU	10^DP	Yes	-1999	9999
66	CtYP	Control Type	Table-12		Yes	0	4
67	CFrm	Control Form	Table-8		Yes	0	1
68	CPrd	Control Period	s		Yes	1	250
69	mnPr	Manuel Operation Permisson	Table-6		Yes	0	1
70	trtm	Motor Valve Travel Time	s		Yes	10	2500
71	dbnd	Control Output Death Band	%	10	Yes	1	250
72	SoLL	Single Sided (+) Control Output Lower Limit	%	10	Yes	0	1000
73	SoHL	Single Sided (+) Control Output Upper Limit	%	10	Yes	0	1000
74	Somr	Single Sided (+) Control Output Manual-Reset Value	%	10	Yes	0	1000
75	doLL	Double Sided (+/-) Control Output Lower Limit	%	10	Yes	-1000	1000
76	doHL	Double Sided (+/-) Control Output Upper Limit	%	10	Yes	-1000	1000
77	domr	Double Sided (+/-) Control Output Manual-Reset Value	%	10	Yes	-1000	1000
78	PonC	PID Control Power-On Behaviour	Table-20		Yes	0	4
79	rL1d	1.Relay (RL1) Function	Table-10		Yes	0	14
80	rL2d	2.Relay (RL2) Function	Table-10		Yes	0	14
81	rL3d	3.Relay (RL3) Function	Table-10		Yes	0	14
82	rL4d	4.Relay (RL4) Function	Table-10		Yes	0	14
83	Ao1d	1.Analog Output (AO1) Function	Table-14		Yes	0	3
84	Ao2d	2.Analog Output (AO2) Function	Table-14		Yes	0	3
85	Ao1r	1.Analog Output (AO1) Scalar	Table-15		Yes	0	3
86	Ao2r	2.Analog Output (AO2) Scalar	Table-15		Yes	0	3
87	inP1	1.Analog Input (AIN1) Type (For Process Value Measurement)	Table-17		Yes	0	15
88	inP2	2.Analog Input (AIN2) Type (External Set Point Input)	Table-5		Yes	0	1
89	dP	Measurement Decimal Point (DP)[1]			Yes	0	3
90	2Ero	Analog Input Scalar Lower Value (Linear Input Types)	EU	10^DP	Yes	-1999	9999
91	SPAn	Analog Input Scalar Upper Value (Linear Input Types)	EU	10^DP	Yes	-1999	9999
92	trLL	Tansmitter Scale Lower Value	EU	10^DP	Yes	-1999	9999
93	trHL	Transmitter Scale Upper Value	EU	10^DP	Yes	-1999	9999
94	Unit	Temperature Unit	Table-9		Yes	0	1
95	oFSt	Temperature Offset Value	EU	10^DP	Yes	-1000	1000
96	FLtr	Measurement Filter Coefficient	EU	10^DP	Yes	1	100
97	Snbr	Sensor Broken Behaviour	Table-4		Yes	0	1
200+4n		Step Time ("0" to cancel)	Min.	10	Yes	0	9999
201+4n		Step-End Set Value	EU	10^DP	Yes	-1999	9999
202+4n		Step Alarms	Table-2		Yes	0	63

Note : "n" is the step number, takes values between 0 and 99.

[1] Measurement Decimal Point (DP) is specified by the dP Parameter.But
If 1.Analog Input Type (inP1) is TC or RT and the dP parameter is greater than "1","(DP) = 1" assumed.
When the dP Parameter is changed, all the parameters with EU unit should be readjusted.

Tables:

Table-1

	Status	
Bit	**In short**	**Explanation (For 1)**
0		1.Relay (RL1) Active
1		2.Relay (RL2) Active
2		3.Relay (RL3) Active
3		4.Relay (RL4) Active
4	oPEn	Sensor Broken
5	oFL	Sensor Measurement over Scalar
6	UFL	Sensor Measurement below Scalar
7		Manuel
8	oPn	Valve Open
9	CLS	Valve Close
10		Program in Process
11		Program in Hold

Tablo-2

	Step Alarms
Bit	**1 / 0 = Yes /No**
0	Give "AL-A" Alarm, during the Step
1	Give "AL-b" Alarm, during the Step
2	Give "AL-C" Alarm, during the Step
3	Give "AL-d" Alarm, during the Step
4	For Excess Change Hold and give "AL-o" Alarm
5	At Step Beginning Hold and give "AL-H" Alarm

Table-3

	COIL	Communication Addresses
Ad.	**A.Perm**	**Explanation (1 / 0)**
0	Yes	Mod (Manuel / Automatic)
1	Yes	Valve (Open /Stop)
2	Yes	Valve (Close / Stop)
3	Yes	Program (Start /Stop)
4	Var	Program (Hold / Continue)

Table-4

0	Lo	Lower The Process Value
1	HI	Higher The Process Value

Table-5

0	0A20	0-20mA (Linear)
1	4A20	4-20mA (Linear)

Table-6

0	dSb	Disable
1	Enb	Enable

Table-7

0	oFF	OFF
1	on	ON

Table-8

0	dir	Direct
1	rEu	Reverse

Table-9

0	oC	°C
1	oF	°F

Table-10

0	Co-1	"+" Directed Control Output
1	Co-2	"-" Directed Control Output
2	do-1	On / Off Heater Output
3	do-2	On / Off Cooler Output
4	AL-1	Alarm-1
5	AL-2	Alarm-2
6	AL-3	Alarm-3
7	AL-4	Alarm-4
8	AL-A	"A" Type Step Alarm
9	AL-b	"B" Type Step Alarm
10	AL-C	"C" Type Step Alarm
11	AL-d	"D" Type Step Alarm
12	AL-o	"O" Type Step Alarm
13	AL-H	"H" Type Step Alarm
14	AL-E	Program Over Alarm

Table-11

0	oFF	Off
1	Lo	Low (Absolute)
2	HI	High (Absolute)
3	Lod	Low (Relative)
4	HId	High (Relative)
5	Lob	Internal Band Alarm
6	HIb	External Band Alarm

Table-12

0	nonE	No Control
1	SCo	Single-Sided (+) PID Control
2	dCo	Double-Sided (+/-) PID Control
3	PFb	Feedback Valve Control
4	bnd	Open-Loop Valve Control

Table-13

0	Int	Over The Unit or by Communication
1	Ert	Over the 2.Analog Output(AIN2)
2	dInP	Multiple with Digital Input (Tablo-22)
3	PrFL	With Profile-Control Program

Table-14

0	Co-1	"+"Directed Control Output
1	Co-2	"-" Directed Control Output
2	Putr	Process Value Transmitter
3	SPtr	Set Point Transmitter

Table-15

0	0-20	0-20mA
1	20-0	20-0mA
2	4-20	4-20mA
3	20-4	20-4mA

Table-16

0	nonE	None
1	odd	Odd
2	EuEn	Even

Table-17

0	b	Type-B (TC)
1	E	Type-E (TC)
2	J	Type-J (TC)
3	F	Type-K (TC)
4	L	Type-L (TC)
5	n	Type-N (TC)
6	r	Type-R (TC)
7	S	Type-S (TC)
8	t	Type-T (TC)
9	U	Type-U (TC)
10	Pt	Pt-100 (RT)
11	0A20	0-20mA (Linear)
12	4A20	4-20mA (Linear)
13	0u50	0-50mV (Linear)
14	0.0u1	0.0-1.0V (Linear)
15	0.2u1	0.2-1.0V (Linear)

Table-18 (Not-1)

0	Only Process Value can be Observed
1	Process and Set Values can be Observed
2	Operation Screen Parameters can be Observed
3	SCdt Page Parameters can be Observed
4	Prdt Page Parameters can be Observed
5	tUnE Page Parameters can be Observed
6	SEtP Page Parameters can be Observed
7	ACnF Page Parameters can be Observed
8	oCnF Page Parameters can be Observed
9	GCnF Page Parameters can be Observed

Table-19 (Not-1)

0	None of the Parameters can be changed
1	Only Set Value can be changed
2	Operation Screen Parameters can be changed
3	SCdt Page Parameters can be changed
4	Prdt Page Parameters can be changed
5	tUnE Page Parameters can be changed
6	SEtP Page Parameters can be changed
7	ACnF Page Parameters can be changed
8	oCnF Page Parameters can be changed
9	GCnF Page Parameters can be changed

Table-20

0	Run with the latest Control Values
1	Switch to Automatic Mode
2	Switch to Automatic Mode and make "int=0"
3	Switch to Manuel Mode
4	Switch to Manuel Mode and make "Out = 0"

Table-21

0	Profile Position Unchanged
1	Profile Position Unchanged and Hold
2	Return to the Start of the Current Segment
3	Return to the Start of the Current Segment and Hold
4	Stop

Table-22

DI1	DI2	0 / 1 = Open/ Closeed
0	0	1.Multiple Set Point (SEt1)
0	1	2.Multiple Set Point (SEt2)
1	0	3.Multiple Set Point (SEt3)
1	1	4.Multiple Set Point (SEt4)

Not-1: Levels with large numerals in Tables-18 and Tables-19 contains previous levels