MICROPROCESSOR BASED REGULATORS

ELK

CE

- °C-RH%-*bar*
- PID
- 4 Relays
- RS485




	ELK 38	ELK 39	ELK 31	ELK 32
MECHANICAL CHARACTERISTICS				
Housing	Self-extinguishing plastic, UL 94 V0			
Dimensions	33x75 mm - depth 64 mm			
Weight	180 g approx.		150 g. approx.	
Connections	2,5 mm^2 screw terminal block			
Mounting	Flush in panel in 29x71 mm hole			
Front panel protection	IP 65 mounted in panel with gasket			
ELECTRICAL DATA				
Power supply	12, 24 VAC/DC, 100..240 VAC +/-10%		12 VAC/VDC	
AC Frequency	50 / 60 Hz			
Power consumption	4 VA approx.			
INPUT DATA				
4 different configuration for programmable multi-input	Thermocouples J, K, S – According to IEC 584-2, accuracy class 1 or 2 Pt 100 – According to IEC 751, accuracy class A or B TECNOLOGIC Infrared Thermocouples IRS J and K 0…50 mV, 0…60 mV, 12…60 mV			
	Thermocouples J, K, S – According to IEC 584-2, accuracy class 1 or 2 PTC KTY 81-121 (990 Ω at 25°C) NTC 103AT-2 (10 kΩ at 25°C) TECNOLOGIC Infrared Thermocouples IRS J and K 0…50 mV, 0…60 mV, 12…60 mV			
	0/4...20 mA			
	0/1…5 V, 0/2…10 V			
Digital input	--		2 programmable digital inputs	
Normalized signals input impedance	for 0/4…20 mA input : 51 Ω - for mV and V input : 1 MΩ			
OUTPUT DATA				
Relay	Up to 2 outputs SPDT (8 A-AC1, 3 A-AC3 / 250 VAC)		2 outputs SPST-NO + 2 outputs SPDT (8 A-AC1, 3 A-AC3 / 250 VAC)	
Relay electric life	100000 operations			
Voltage for SSR driving	Up to 2 outputs : 8 mA / 8 VDC with protection against short circuits		Up to 4 outputs : 10 mA / 10 VDC with protection against short circuits	
Auxiliary power supply output	12 VDC / 20 mA max, only for instruments with 12 VAC/DC as power supply			
FUNCTIONAL DATA				
Control	ON/OFF, Neutral Zone, PID single and double action programmable			
Multi Set Point	Up to 4 programmable Set Points			
Overall accuracy	+/-0.5% full scale			
Display resolution	According to the used probe 1/0,1/0,01/0,001			
Measurement range	According to the used probe and to the measurement unit			
Max. cold junction compensation drift	0.04°C/°C with operating temperature 0…50°C after warm-up time of 20 min.			
Sampling rate	8 samples per second			
Serial communication	--		RS485 with MODBUS-RTU (JBUS) protocol	
Serial transmission rate	--		1200…38400 baud, selectable	
Display	4 red digit h=12 mm	4+4 red/green digit h=7 mm	4 red digit h=12 mm	4+4 red/green digit h=7 mm
Parameters access	Protected by password			
Fast parameters programming	By using programming key KEY01			
Operating temperature	0…50°C			
Operating humidity	30…95 RH% without condensation			

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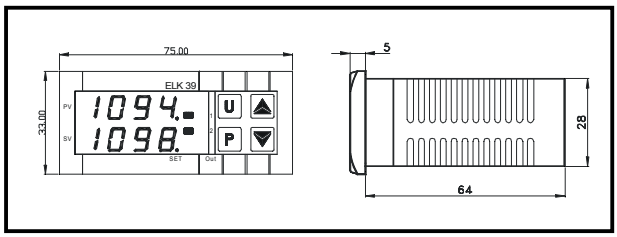
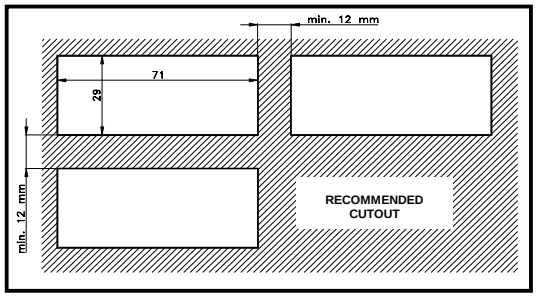
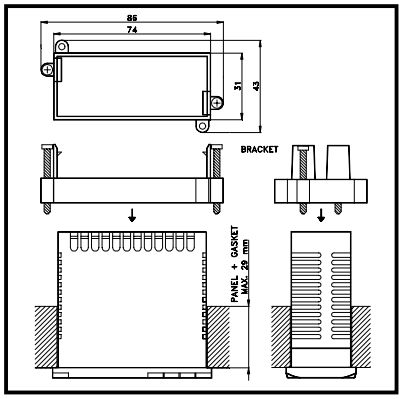
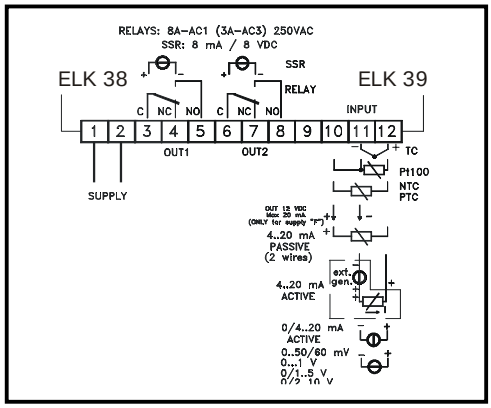
DIMENSIONS (mm)

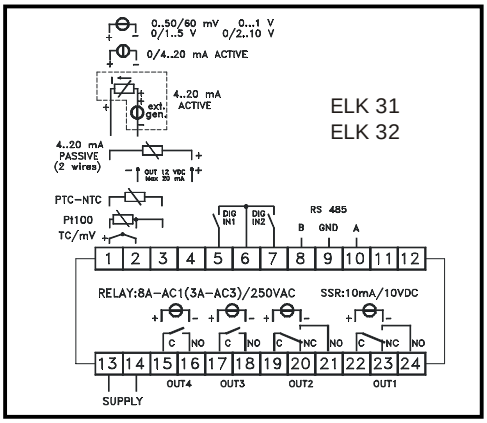






CONNECTIONS





CODING

ELK 38 / ELK 39	Single Display / Double Display	33 x 75
Description	**Codes**	**Codes Description**
Power Supply	**240**	100..240 VAC
	24	24 VAC/DC
	12	12 VAC/DC
Input Signal	**V**	0-1/5V, 0-2/10 V
	I	0-4/20 mA
	E	TC (J,K,S,IR) + PTC,NTC, mV
	C	TC (J,K,S,IR) + PT100, mV
Main Output **OUT 1**	**R**	Relay
	S	8 mA / 8 VDC for SSR
Second Output **OUT 2**	**2R**	Relay
	2S	8 mA / 8 VDC for SSR
	-	None

ELK 31 / ELK 32	Single Display / Double Display	33 x 75
Description	**Codes**	**Codes Description**
Input Signal	**V**	0-1/5V, 0-2/10 V
	I	0-4/20 mA
	E	TC (J,K,S,IR) + PTC,NTC,
	C	TC (J,K,S,IR) + PT100, mV
Main Output OUT 1	**R**	Relay
	S	10 mA / 10 VDC for SSR
Second Output **OUT 2**	2R	Relay
	2S	10 mA / 10 VDC for SSR
	-	None
Third Output **OUT 3**	3R	Relay
	3S	10 mA / 10 VDC for SSR
	-	None
Fourth Output **OUT 4**	4R	Relay
	4S	10 mA / 10 VDC for SSR
	-	None
Serial Communication	S	RS485
	-	None
Digital Input	IA	Digital Input
	-	None