

CONTROLTEC

DIGITAL CONTROLS

TLK

**SelfTune/ Auto Tune
PID**

Single or Dual Display

**1/16 DIN
48x48 mm**



TLK 48

TLK 49

TLK 41

TLK 42

TLK 43

MECHANICAL CHARACTERISTICS

Housing	Self-extinguishing plastic, UL 94 V0	
Dimensions	48x48 mm – depth 98 mm (1/16DIN)	
Weight	225 g approx.	190 g. approx.
Connections	2,5 mm ² screw terminal block	
Mounting	Flush in panel in 45x45 mm hole	
Front panel protection	IP 54 mounted in panel with gasket	

ELECTRICAL DATA

Power supply	24 VAC/DC, 100 - 230 VAC +/-10%	20...30 VAC/VDC, 100...230 VAC +/-10%
AC Frequency	50 / 60 Hz	
Power consumption	5 VA approx.	9 VA approx.

INPUT DATA

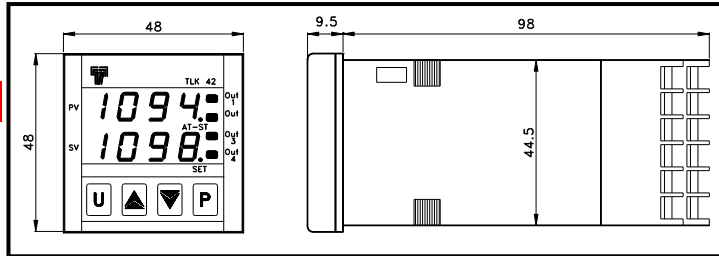
4 different configurations for programmable multi-input	Thermocouples J, K, - IEC 584-2, Pt 100 – According to IEC 751, TECHNOLOGIC Infrared IRS J and K 0...50 mV, 0...60 mV, 12...60 mV	--
	Thermocouples J, K, S – IEC 584-2 PTC KTY 81-121 (990 Ω at 25°C) NTC 103AT-2 (10 kΩ at 25°C) TECNOLOGIC Infrared 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	--
Programmable universal input	--	Thermocouples J, K, S – According to IEC 584-2, Pt 100 – According to IEC 751 TECNOLOGIC Infrared Thermocouples IRS J and K PTC KTY 81-121 (990 Ω at 25°C) NTC 103AT-2 (10 kΩ at 25°C) 0...50 mV, 0...60 mV, 12...60 mV 0/4...20 mA 0/1...5 V, 0/2...10 V
Current transformer input	--	CT 50 mA max
Digital Input	--	Optoisolated
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 SPST-NO (8 A-AC1, 3 A-AC3 / 250 VAC)	Up to 4 outputs SPST-NO (5 A-AC1, 2 A-AC3 / 250 VAC)
Relay electric life	100000 operations	
Current output	--	3 x 0/4...20 mA
Voltage output	3 x 0/2...10 V	
Voltage for SSR driving	Up to 2 outputs : 8 mA at 8 VDC with protection against short circuits	Up to 4 outputs : 7 mA at 14 VDC with protection against short circuits
Auxiliary pow. sup. Output	10 VDC / 20 mA max	12 VDC / 20 mA max

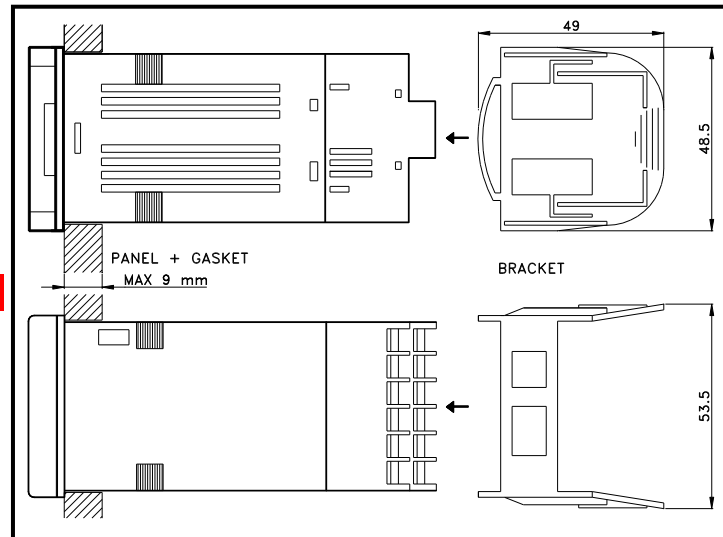
FUNCTIONAL DATA

Control	ON/OFF, Neutral Zone, PID single and double action programmable		
Multi Set Point	Up to 4 programmable Set Points		
Signal re-transmission	--	On relay output	
Motorized actuators control	--	3 points control	
Overall accuracy	+/-0.5% full scale	+/-0.15% 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		
Measurement Unit	°C - °F, programmable		
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	
Communication rate	--	1200...38400 baud, selectable	
Display	4 digit h=12 mm	4+4 digit h=7 mm	4 digit h=12 mm 4+4 digit h=7 mm
Parameters access	Protected by password		
Operating temperature	0...55°C		
Operating humidity	30...95 RH% without condensation		

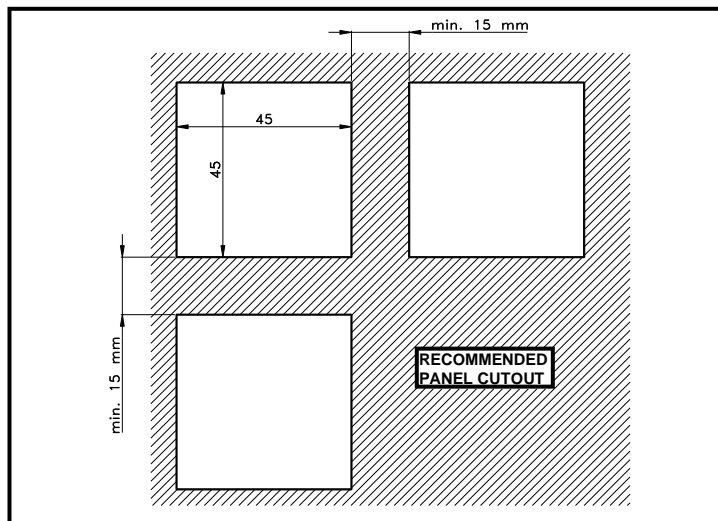


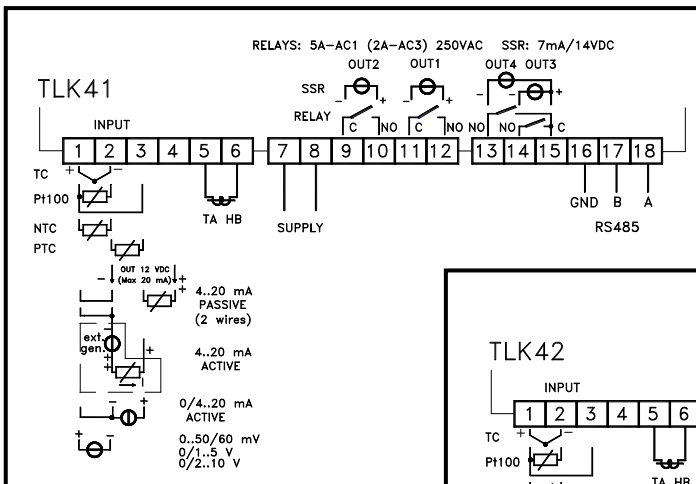
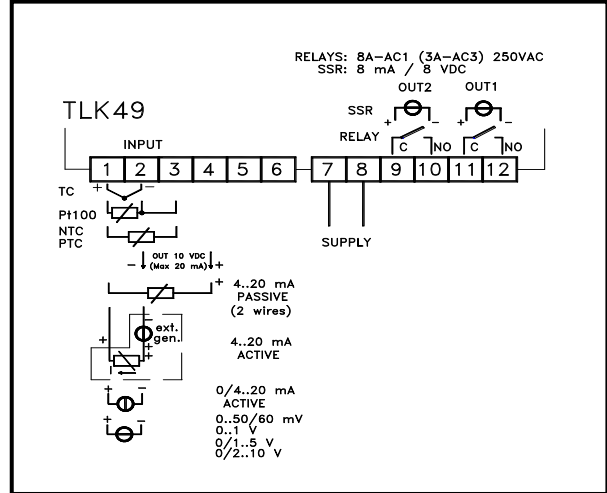
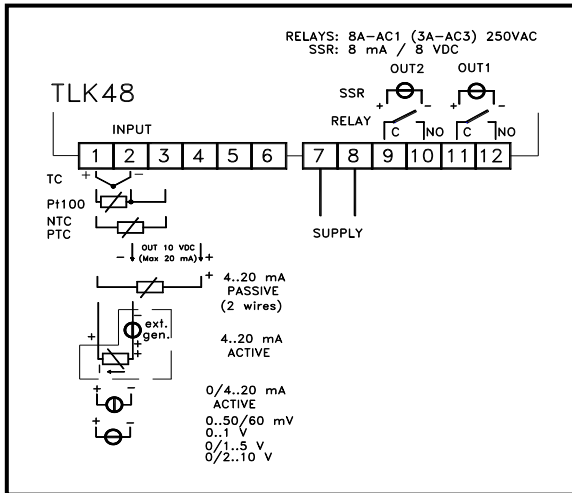
DIMENSIONS (mm)

PANEL MOUNTING BRACKET

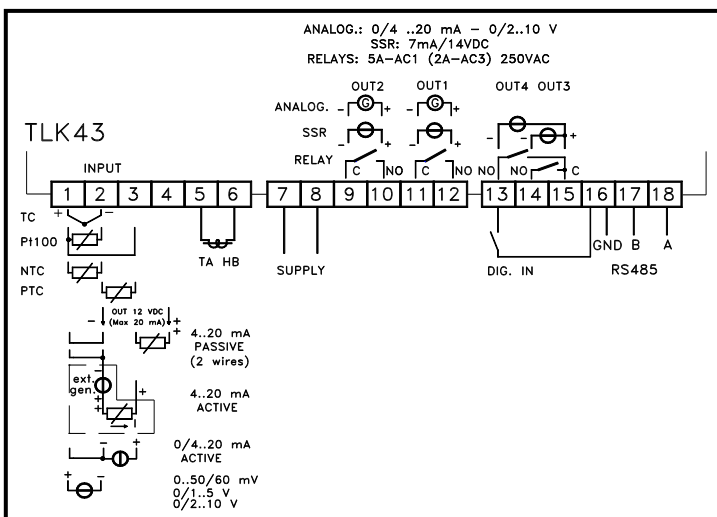
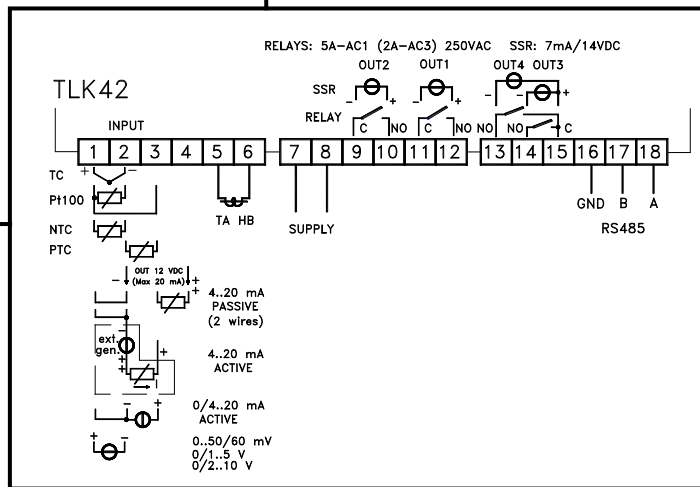


PANEL CUTOUT





WIRING DIAGRAMS



TLK 48	Single Display	48 x 48 (1/16 DIN)
TLK 49	Double Display	
Description	Code	Code Description
Power Supply	L	24 VAC/DC
	H	100-230VAC
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
	O	8 mA / 8 VDC for SSR
Second output OUT 2	R	Relay
	O	8 mA / 8 VDC for SSR
	-	None

HOW TO ORDER

TLK 41	Single Display	48 x 48 (1/16 DIN)
TLK 42	Double Display	
Description	Code	Code Description
Power supply	L	20...30 VAC/DC
	H	100...230 VAC
Main output OUT 1	R	Relay
	O	7 mA / 14 VDC for SSR
Second output OUT 2	R	Relay
	O	7 mA / 14 VDC for SSR
	-	None
Third output OUT 3	R	Relay
	O	7 mA / 14 VDC for SSR
	-	None
Fourth output OUT 4	R	Relay
	O	7 mA / 14 VDC for SSR
	-	None
Serial Communication	S	RS485
	-	None
Heater Break HB	H	CT Input
	-	None

TLK 43	Double Display	48 x 48 (1/16 DIN)
Description	Code	Code Description
Power Supply	L	20...30 VAC/DC
	H	100...230 VAC
Main output OUT 1	R	Relay
	O	20 mA/14 VDC x SSR
	C	0/4..20 mA
	V	0/2..10 V
Second output OUT 2	R	Relay
	O	7 mA / 14 VDC for SSR
	C	0/4..20 mA
	V	0/2..10 V
	-	None
Third output OUT 3	R	Relay
	O	7 mA / 14 VDC for SSR
	C	0/4..20 mA
	V	0/2..10 V
	-	None
Fourth output OUT 4	R	Relay
	O	7 mA / 14 VDC for SSR
	-	None
Serial Communication / Digital inputs	S	RS485
	I	RS485+Digital input
	-	None
Heater Break HB	H	CT input
	-	None