

TLK94

- UNIVERSAL INPUT
- RS485
- UP TO 5 OUTPUTS
- SERVOMOTOR CONTROL



FEATURES

DISPLAY	TLK94
Dual display	Main display: 4 red digit, h 10 mm Secondary display: 4 green digit, h 7.5 mm
INPUTS	
Universal	Thermocouples J, K, S, B, C, E, L, N, R, T and Infrared sensors J or K + Thermoresistances Pt 100 and Pt1000 3 wires + Linear signals 0/10... 50mV, 0/4... 20mA, 0/12... 60mV, 0/1... 5V, 0/2... 10V (see table next page for temperature ranges)
Accuracy	$\pm 0.2\%$ fs + 1 digit; PTC/NTC: $\pm 0.5\%$ fs + 1 digit
Current transformer (CT) input	CT 50 mA max. optoisolated
Digital inputs	2 for free voltage contacts
OUTPUTS	
Up to 6	OUT 1 : Relay SPST-NO (6 A-AC1, 3 A-AC3 / 250 V AC) or 12Vdc/20 mA to drive SSR or 0/4... 20 mA or 0/2... 10 V OUT 2: Relay SPST-NO (4 A-AC1, 2 A-AC3 / 250 V AC) or 12Vdc/20 mA to drive SSR or 0/4... 20 mA or 0/2... 10 V OUT 3, OUT 4, OUT 5 : Relay SPST-NO (4 A-AC1, 2 A-AC3 / 250 V AC) or 12Vdc/20 mA to drive SSR OUT6: 12Vdc/20 mA to drive SSR
Up to 4	12 Vdc/20 mA max.
FUNCTIONAL	
Control	ON/OFF, PID single and double action, PID for servomotor control
PID functions	AUTOTUNING, FAST TUNING, Selftuning
Multi Set Point	Up to 4 pre-programmable Set Point
Servomotor control	3 points
Signal retransmission	On analogue output
Serial communication	RS485 with ModBus-RTU (JBUS) protocol
Baud rate	1200... 38400 baud, programmable
GENERAL	
Power supply	24 Vac/Vdc, 100... 240 Vac/Vdc $\pm 10\%$ (50/60 Hz)
Power consumption	10 VA approx.
Dimensions / Weight	48 x 96 mm (1/8 DIN) – depth 98 mm / 260 g approx.
Mounting	Flush in panel in 45 x 92 mm hole
Connections	Screw terminal block 2 x 1 mm ²
Front protection degree	IP 54, mounted on panel with gasket
Operating / storage temperature	0... 50°C (32... 122°F) / -10 ... 60 °C (14... 140°F)
Operating humidity	30... 95 RH% without condensation
Conformity	Directive CEE EMC 2004/108/CE (EN 61326), Directive CEE BT 2006/95/CE (EN 61010-1)

HOW TO ORDER

To compose the part number, pls. choose one of the option for each variable

TLK94	
POWER SUPPLY	
24 Vac/Vdc	L
100... 240 Vac/Vdc	H
OUT 1	
Relay SPDT 6 A-AC1	R
Voltage for SSR driving	O
0/4... 20 mA	I
0/2... 10 V	V
OUT 2	
Relay SPST-NO 4 A-AC1	R
Voltage for SSR driving	O
0/4... 20 mA	I
0/2... 10 V	V
Not available	-
OUT 3	
Relay SPST-NO 4 A-AC1	R
Voltage for SSR driving	O
Not available	-
OUT 4	
Relay SPST-NO 4 A-AC1	R
Voltage for SSR driving	O
Not available	-
OUT 5	
Relay SPST-NO 4 A-AC1	R
Voltage for SSR driving	O
Not available	-
SERIAL COMMUNICATION AND DIGITAL INPUT	
RS485	S
CT input	H
RS485 and CT input	T
Not available	-

Note : When selected OUT 3, OUT 4 and OUT 5 must be identical.
(ALL Relay or ALL voltage for SSR driving).

DIMENSIONS

The technical drawing shows two views of the TLK94 control unit:

- Front View (Left):** A rectangular panel with a width of 48 mm and a height of 96 mm. It features a digital display showing "PV 302.5 TUN" and "SV 500.5 SET". Above the display are five output indicators labeled "Out1", "Out2", "Out3", "Out4", and "Out5". Below the display are four buttons arranged in a 2x2 grid: "U" (Up), "P" (Down), and two arrow buttons (Up and Down). The label "TLK 94" is at the bottom.
- Side View (Right):** Shows the profile of the unit with a total depth of 10 mm. The main body has a height of 89.5 mm. On the right side, there is a vertical stack of 10 screw terminals.

The dimensions are expressed in mm.

CONNECTIONS

Pin diagram of the TLK94 relay module. The diagram shows 16 pins on the left (INPUT) and 16 pins on the right (OUTPUTS). The input pins are labeled 1a through 8a, 1b through 8b. The output pins are labeled 1a through 8a, 1b through 8b. The module includes a 15VDC input, a 15VDC output, and a 15VDC output. The module is labeled TLK94.

TEMPERATURE RANGES

TLK94 TEMPERATURE RANGES		
INPUT	WITHOUT DP	WITH DP
tc J	-160 ... 1000 °C - 256 ... 1832 °F	-160.0 ... 999.9 °C -199.9 ... 999.9 °F
tc K	-100 ... 1370 °C - 148 ... 2498 °F	-100.0 ... 999.9 °C -148.0 ... 999.9 °F
tc S	0 ... 1760 °C 32 ... 3200 °F	0.0 ... 999.9 °C 32.0 ... 999.9 °F
tc B	72 ... 1820 °C 162 ... 3308 °F	72.0 ... 999.9 °C 162.0 ... 999.9 °F
tc E	-150 ... 750 °C -252 ... 1382 °F	-150.0 ... 750.0 °C -199.9 ... 999.9 °F
tc L	-150 ... 900 °C -252 ... 1652 °F	-150.0 ... 900.0 °C -199.9 ... 999.9 °F
tc N	-250 ... 1300 °C -418 ... 2372 °F	-199.9 ... 999.9 °C -199.9 ... 999.9 °F
tc R	-50 ... 1760 °C -58 ... 3200 °F	-50.0 ... 999.9 °C -58.0 ... 999.9 °F
tc T	-250 ... 400 °C -418 ... 752 °F	-199.9 ... 400.0 °C -199.9 ... 752.0 °F
tc C	0 ... 2320 °C 32 ... 4208 °F	0.0 ... 999.9 °C 32.0 ... 999.9 °F
Infrared sensors	-46 ... 785 °C -50 ... 1445 °F	-46.0 ... 785.0 °C -50.8 ... 999.9 °F
Pt100 (IEC)	-200 ... 850 °C -50 ... 1445 °F	-199.9 ... 850.0 °C -199.9 ... 999.9 °F
PTC (KTY81-121)	-55 ... 150 °C -67 ... 302 °F	-55.0 ... 150.0 °C -67.0 ... 302.0 °F
NTC (103-AT2)	-50 ... 110 °C -58 ... 230 °F	-50.0 ... 110.0 °C -58.0 ... 230.0 °F
Pt1000 (IEC)	-200 ... 500 °C -328 ... 932 °F	-199.9 ... 500.0 °C -199.9 ... 932.0 °F