

TLK 43

- UNIVERSAL INPUT
- RS485
- UP TO 4 OUTPUTS
- CT INPUT



FEATURES

DISPLAY	
Display	TLK43 Dual display: 4 red and green digit, h 7mm
INPUTS	
Universal	Thermocouples: J, K, S, B, C, E, L, N, R, T (see table next page for temperature ranges) Infrared sensors: J or K Thermoresistances: Pt100 and Pt1000 3 wires (see table next page for temperature ranges) Thermistors PTC KTY 81-121 (990 kΩ at 25°C) (-55... +150°C/-67... +302°F or -55.0... +150.0°C -67.0... +302.0°F) and NTC 103AT-2 (10Ω at 25°C) (-50... +110°C/-58... +230°F or -50.0... +110.0°C/-58.0... +230.0°F) Linear signals: 0/10... 50 mV, 0/12... 60 mV, 0/4... 20 mA, 0/1... 5 V, 0/2... 10 V
Accuracy	±0.15% fs
Current transformer (CT) input	CT 50 mA max.
Digital input	optoisolated
OUTPUTS	
Up to 4	OUT 1: Relay SPST-NO (5 A-AC1, 2 A-AC3/250 Vac) or 7 mA/14 Vdc 20 mA max. to drive SSR OUT 2, OUT 3 and OUT 4: Relay SPST-NO (3 A-AC1, 1,5 A-AC3/250 Vac) or 7 mA/14 Vdc 20 mA max. to drive SSR
Auxiliary power supply	12 Vdc/20 mA max.
Current (as alternative to Relay output)	OUT 1 and OUT 2: 0/4... 20 mA.
Voltage (as alternative to Relay output)	OUT 1 and OUT 2: 0/2... 10 V
FUNCTIONAL	
Control	ON/OFF, Neutral Zone, PID single and double action
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 ±10% (50/60 Hz)
Power consumption	10 VA approx.
Dimensions / Weight	48 x 48 mm (1/16 DIN) - depth 98 mm / 190 g approx.
Mounting	Flush in panel in 45 x 45 mm hole
Connections	Screw terminal block 2 x 1 mm ²
Front protection degree	IP 65, mounted on panel with gasket
Operating / storage temperature	0... +50°C (32... +122°F) / -25... +60°C (-13... +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

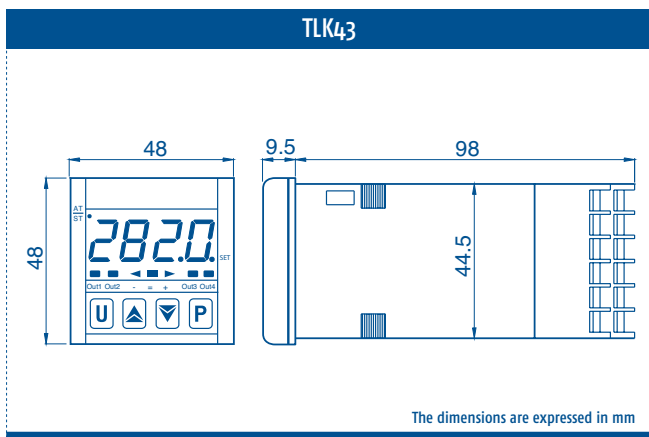
To compose the part number, pls. choose one of the option for each variable

TLK41 / TLK42 / TLK43	CODE
POWER SUPPLY	
24 Vac/Vdc	L
100... 240 Vac	H
OUT 1	
Relay	R
Voltage for SSR driving	0
0/4... 20mA	C
0/2... 10V	V
OUT 2	
Relay	R
Voltage for SSR driving	0
0/4... 20mA	C
0/2... 10V	V
Not available	-
OUT 3	
Relay	R
Voltage for SSR driving	0
Not available	-
OUT 4	
Relay	R
Voltage for SSR driving	0
Not available	-
SERIAL COMMUNICATION AND DIGITAL INPUT	
RS485	S
RS485 and digital input	I
Not available	-
CURRENT TRANSFORMER INPUT	
Available	H
Not available	-

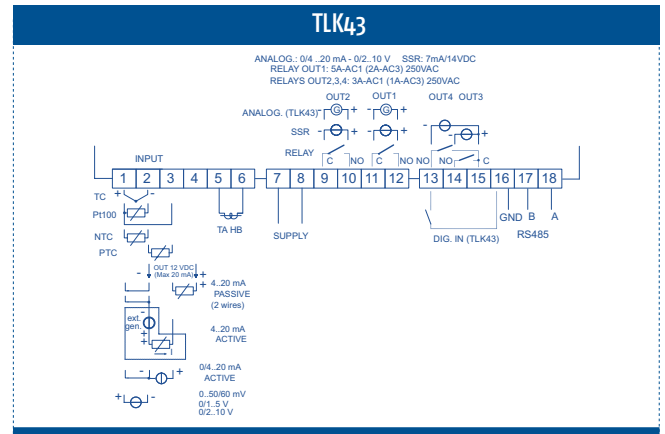
Notes:

OUT 3 and OUT 4 have to be of the same type (both R or 0).
 CT INPUT: this function has to be always associated to an output (R or 0).
 Analogue output and CT function are mutually exclusive.
 Digital input is always available when RS485 option is provided.
 RS485 and OUT 4 are mutually exclusive.

DIMENSIONS



CONNECTIONS



TEMPERATURE RANGES

TLK43 TEMPERATURE RANGES		
INPUT	WITHOUT D.P.	WITH D.P.
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
Ingrated sensors (ZIS)	-46 ... 785 °C -50 ... 1445 °F	-46.0 ... 785.0 °C -50.8 ... 999.9 °F
Pt1000 (IEC)	-200 ... 500 °C -328 ... 932 °F	-199.9 ... 500.0 °C -199.9 ... 932.0 °F
Pt100 (IEC)	-200 ... 850 °C -328 ... 1562 °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