

TLK 41/42/43

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



FEATURES	TLK41	TLK42	TLK43
DISPLAY	Single display: 4 red digit, h 12 mm	Dual display: 4 red and green digit, h 7 mm	
INPUTS	Thermocouples: J (-160... +1000°C/-256... +1832°F or -160.0... +999.9°C/-199.9... +999.9°F), K (-100... +1370°C/-148... +2498°F or -100.0... +999.9°C/-148.0... +999.9°F), S (0... +1760°C/32... +3200°F or 0.0... 999.9°C/32.0... +999.9°F)		Thermocouples: J, K, S, B, C, E, L, N, R, T (see table next page for temperature ranges)
Universal	Infrared sensors: J or K		Thermoresistances: Pt100 and Pt1000 3 wires (see table next page for temperature ranges)
	Thermoresistances: Pt100 3 wires (-200... +850°C/-328... +1562°F or -199.9... +850.0°C/-199.9... +999.9°F) - according to EN 60751/A2, classe A or B		
	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 (10kΩ at 25°C) (-50... +110°C/-58... +230°F or -50.0... +110.0°C/-58.0... +230.0°F)		
Accuracy	±0.15% fs		
Current transformer (CT) input	CT 50 mA max.		
Digital input	--		optoisolated
OUTPUTS	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		
Up to 4	12 Vdc/20 mA max.		
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	ON/OFF, Neutral Zone, PID single and double action		
PID functions	AUTOTUNING, FAST TUNING, Seltuning		
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	24 Vac/Vdc, 100... 240 Vac/Vdc ±10% (50/60 Hz)		
Power supply	10 VA approx.		
Power consumption	48 x 48 mm (1/16 DIN) - depth 98 mm / 190 g approx.		
Dimensions / Weight	Flush in panel in 45 x 45 mm hole		
Mounting	Screw terminal block 2 x 1 mm ²		
Connections	IP 65, mounted on panel with gasket		
Front protection degree	0... +50°C (32... +122°F) / -25... +60°C (-13... +140°F)		
Operating / storage temperature	30... 95 RH% without condensation		
Operating humidity	Directive CEE EMC 2004/108/CE (EN 61326), Directive CEE BT 2006/95/CE (EN 61010-1)		
Conformity			



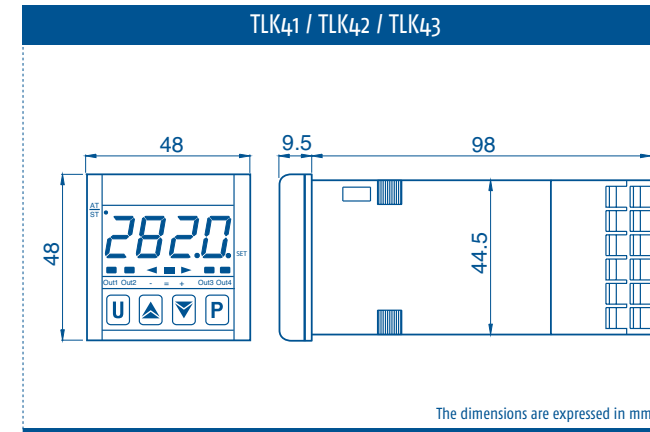
HOW TO ORDER

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	O
0/4... 20mA (TLK43 only)	C
0/2... 10V (TLK43 only)	V
OUT 2	
Relay	R
Voltage for SSR driving	O
0/4... 20mA (TLK43 only)	C
0/2... 10V (TLK43 only)	V
Not available	-
OUT 3	
Relay	R
Voltage for SSR driving	O
Not available	-
OUT 4	
Relay	R
Voltage for SSR driving	O
Not available	-
SERIAL COMMUNICATION AND DIGITAL INPUT	
RS485	S
RS485 and digital input (TLK43 only)	I
Not available	-
CURRENT TRANSFORMER INPUT	
Available	H
Not available	-

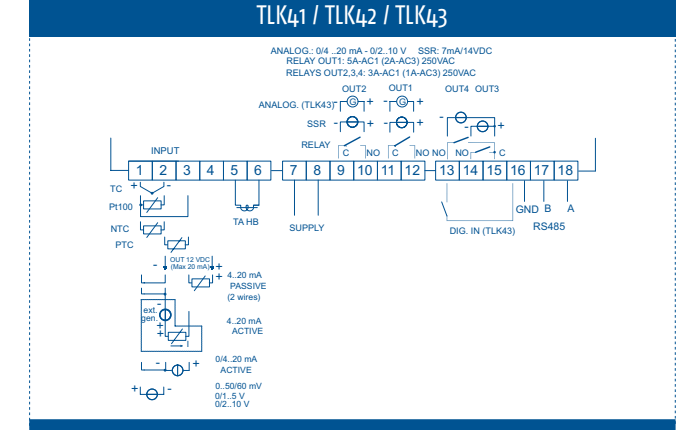
Notes:
 TLK41-TLK42-TLK43: OUT 3 and OUT 4 have to be of the same type (both R or O).
 CT INPUT: this function has to be always associated to an output (R or O).
 TLK43: Analogue output and CT function are mutually exclusive.
 Digital input is always available when RS485 option is provided.
 RS485 and OUT 4 are mutually exclusive.

DIMENSIONS



EVERYTHING UNDER CONTROL

CONNECTIONS



TEMPERATURE RANGES

TLK43 TEMPERATURE RANGES	WITHOUT D.P.	WITH D.P.
INPUT		
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 (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

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