

REGOLATORE PROGRAMMABILE di TEMP. PROGRAMMABLE TEMP. CONTROLLER

TJ xx

MANUALE UTENTE USER MANUAL

1. FACEPLATE DESCRIPTION



LED	FUNCTION
M	Uscita Principale Main Output
I	Uscita Allarme I Alarm I Output
II	Uscita Allarme II Alarm II Output
- DEV +	Indicatore scostamento Deviation Indicator
°C / °F	OFF = °C ON = °F
LK	Chiave Accesso (Lock) Access code (Lock)
AT	Autoregolazione Self-Tuning



KEY	FUNCTION	DISPLAY	FUNCTION
DEV	Tasto Funzione Function Key	PV	Valore di Processo Process-Value
INC	Tasto Incremento Increment Key	SV	Valore Impostato Set-Value
DEC	Tasto Decremento Decrement Key		
LK	Tasto di Ritorno Reverse Key		

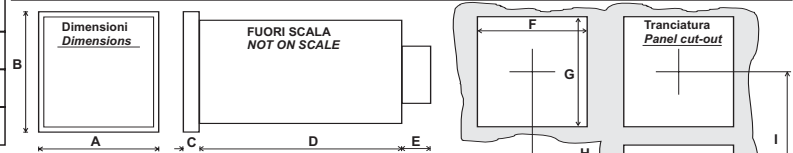
2. MODELS

MODEL	TJ2x	TJ3x	TJ34	TJ43	TJ44	TJ46	TJ48	TJ63	TJ64	TJ66	TJ68	TJ74	TJ78	TJ84	TJ88	TJ94	TJ98	TJxx
3 DIGIT + DEV.																		
3 + 3 DIGIT																		
4 DIGIT + DEV.																		
4 + 4 DIGIT																		

3. DIMENSIONS

unit = mm

MODEL	A	B	C	D	E	F	G	H	I
TJ2x	48	24	5						
TJ3x	74	32	6	62	-	71	29	111	48
TJ4x	48	48	5	72	13	45 ^{+0.6} _{-0.6}	45 ^{+0.6} _{-0.6}	72	72
TJ6x	48	96	5	55	10	45 ^{+0.6} _{-0.6}	92 ^{+0.8} _{-0.8}	72	154
TJ7x	72	72	5						
TJ8x	96	48	9						
TJ9x	96	96	9						



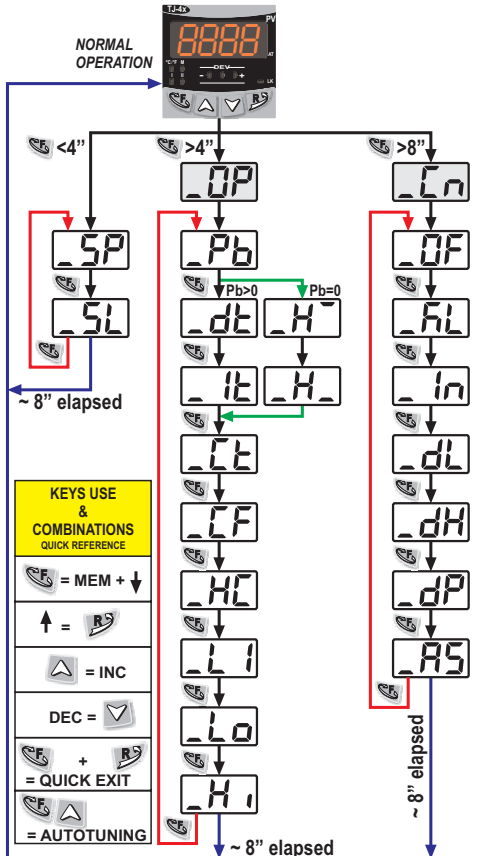
4. TECHNICAL DATA (see data catalog for details)

INPUTS
- RTD Pt100 according to DIN 43760 [linearized] three wires connection for RTD Pt100 (line - 100Ohm max).
- Thermocouple J or K according IEC584-1 [linearized] automatic compensation ref. junction for thermocouples.
- Continuous mV range 0 + 50mVdc with prog. display (other values ie. 0+1V, 0+5V, 0+10Vdc by ext. resistors).
- Continuous mA range 0 + 20mAdc with prog. display (supplied 2,5 ohm resistor, must be connected externally).
Floating input (e.g. sensor breaking) makes overrange.
OUTPUTS
- MAIN : relay SPDT 3A @ 250Vac max; or logic output 12Vdc 20% Ri=270R 2W on req. dc out 0+20mA or 4+20mA or 0+1V or 0+5V
- LIMIT I : relay SPDT 3A @ 250Vac max; (SPST x TJ3x) or logic output 12Vdc 20% Ri=270R 2W
- LIMIT II : relay SPDT 3A @ 250Vac max; (SPST x TJ3x) or logic output 12Vdc 20% Ri=270R 2W
POWER SUPPLY
24 or 115 or 230 Vac ±10% (trasformer) or 100+240Vac ±10% or 15+35Vac/dc ±10% (switching)
Supply frequency : 50 - 60 Hz.
Power : 3 Watt max
CONNECTIONS
- TJ3x 2 x 5 poles screw connectors (2,5mm ²).
- TJ4x "UNDECAL" for socket with screw connections.
- TJ6x 11 poles s.r. disconnecting terminal block with screws.

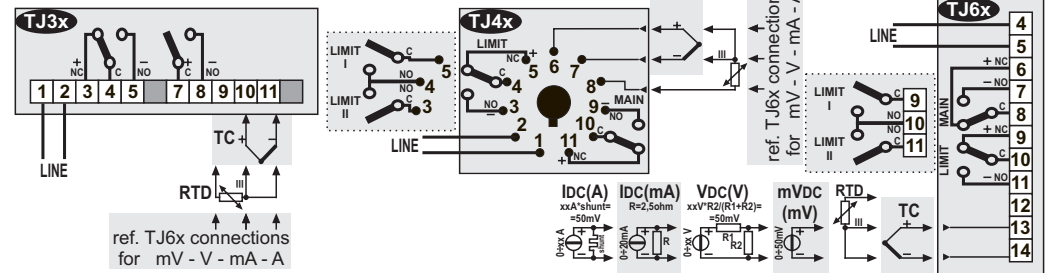
5. CONNECTIONS DIAGRAM & WIRING

SECTION	EXTERNAL WIRING	TJ2x 24x48	TJ3x 74x32	TJ4x 48x48	TJ6x 48x96	TJ7x 72x72	TJ8x 96x48	TJ9x 96x96	TJxx XXXXX	INSIDE DIAGRAM	DEF.
P. S.	LINE	1	1	4	5	X	X	X	X	AC SUPPLY	P. S.
MAIN	MAIN LOAD	3	11	6	8	X	X	X	X	NC RELAY OUT	MAIN
LIMIT I	LIMIT I LOAD	X	5	9	X	X	X	X	X	NC RELAY OUT	LIMIT I
LIMIT II	LIMIT II LOAD	X	7	4	10	X	X	X	X	NC RELAY OUT	LIMIT II
INPUT	LEFT	9	8	12	X	X	X	X	X	15K 2V50H	INPUT

6. FLOW DIAGRAM



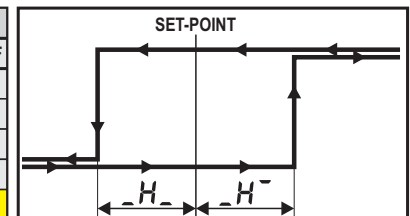
7. ELECTRICAL CONNECTIONS



8. INPUTS and RANGES

CODE	INPUT	3 digit (TJx3 or TJx6)				4 digit (TJx4 or TJx8)			
		min°C	MAX°C	min°F	MAX°F	min°C	MAX°C	min°F	MAX°F
0	Pt100	-199°C	500°C	-199°F	932°F	-199°C	500°C	-328°F	932°F
1	Pt100	-19.9°C	99.9°C	-	-	-19.9°C	400.0°C	-	-
2	Tc 'J'	0°C	900°C	0°F	999°F	0°C	900°C	0°F	1652°F
3	Tc 'K'	0°C	999°C	0°F	999°F	0°C	1300°C	0°F	2372°F
4	mV-mA	-199pts	999pts	-	-	-1999pts	9999pts	-	-

9 HYSTERESIS DIAGRAM



10. ALARM FUNCTIONS (ALARM ≡ LIMIT)

CODE	ALARM (LIMIT) OUTPUT ACTION	RELATIVE	DIRECT
0	MAIN SET-POINT	main +/- limit	RELATIVE
1	Limit S.P.	main + limit	RELATIVE
2	Limit S.P.	main - limit	RELATIVE
3	Limit S.P.	ABSOLUTE	ABSOLUTE
4	main +/- limit	RELATIVE	RELATIVE
5	main + limit	RELATIVE	RELATIVE
6	main - limit	RELATIVE	RELATIVE
7	ABSOLUTE	ABSOLUTE	ABSOLUTE
8	NO ALARM		

11. ERROR MESSAGE

Errors Code	
0000	Over range
0000	Under range

Thermosystems s.r.l.
via delle Industrie, 8 (S.S. 11)
24040 Fornovo S. Giovanni (BG) - Italy
phone : (+39) 0363 350159
fax : (+39) 0363 350362
web : www.thermosystems.it
e-mail : info@thermosystems.it