TLZ 10
TEMPERATURE REGULATOR FOR REFRIGERATION

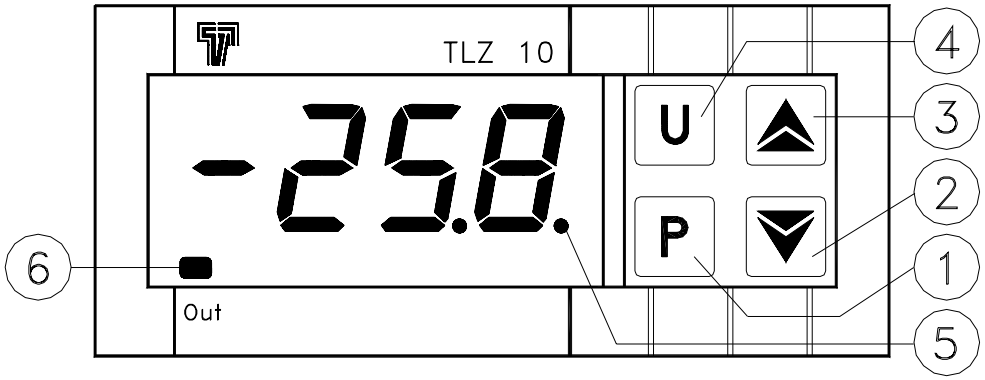
TECHNICAL DATA

MECHANICAL DATA	
Housing	Self-extinguishing plastic, UL 94 V0
Dimensions	33x75 mm – depth 64 mm
Weight	115 g approx.
Connections	2,5 mm ^{2} screw terminal block
Mounting	Flush in panel in 29x71 mm hole
Front panel protection	IP 65 mounted in panel with gasket
ELECTRICAL DATA	
Power supply	12 VAC/VDC, 24 VAC/VDC, 100…240 VAC +/-10%
AC Frequency	50 / 60 Hz
Power consumption	3 VA approx.
INPUT DATA	
Thermistors	1 x PTC (KTY 81-121 – 990 Ω at 25°C) or 1 x NTC (103 AT-2 – 10 KΩ at 25°C)
OUTPUT DATA	
Relay outputs	1 output : SPST-NO (16A-AC1, 6A-AC3 250VAC) or SPDT (16A-AC1, 6A-AC3 250 VAC)
Relay electrical life	100000 operations for OUT SPST-NO 50000 operations for OUT SPDT
FUNCTIONAL DATA	
Control	ON/OFF
Overall accuracy	+/-0.5% fs
Display resolution	1° or 0,1°
Measurement range	PTC: -50 … 150°C / -58 … 302°F NTC: -50 … 109°C / - 58 … 228°F
Display	4 digit red h=12 mm
Measure sampling rate	130 ms
Parameters access	Protected by password
Operating temperature	0…55°C
Operating humidity	30…95 RH% without condensation

CONTROL MODE FEATURES

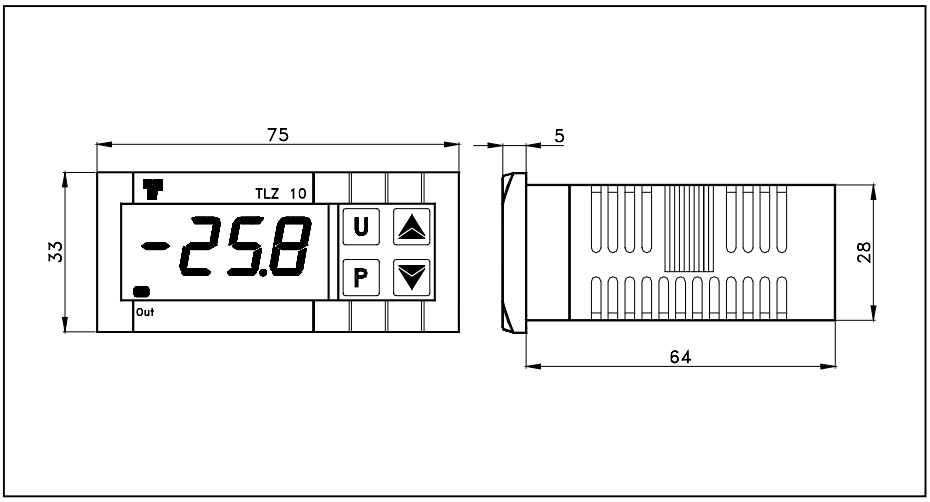
ON / OFF CONTROL
This type of control works on the outputs depending on the Set Point, on the functioning mode and on the differential programmed. The functioning is correct when it's programmed a negative differential in case of heating control and a positive differential in case of refrigeration control. The functioning of the regulator can be modified through the "Compressor Protection" function.
SET POINT PROGRAMMING
Pushing key (P), led SET lights on and the display visualises the programmed Set Point value. With keys UP and DOWN this value can be increased or decreased. These keys work changing one digit per time but, if pushed for more than two seconds, the value is rapidly modified. Exit from the Set Point programming occurs automatically not pushing any key for approx. 5 seconds, thus, on the display, will be visualised the temperature measured by the room probe.
COMPRESSOR PROTECTION FUNCTION
This function is used in the cooling application to avoid compressor "short-cycles", by introducing a delay on the output activation.
KEY U FUNCTIONING MODE
Key U can be configurated for 2 differents functionings: - If OFF, the key executes any function - If 1, pushing key at least for 1 second, it's possible to change the instrument's state ON over stand-by and vice versa.
PARAMETERS CONFIGURATION WITH KEY 01
The instrument parameters can be loaded and/or downloaded through the KEY01 by means of a 5 pole connector. The KEY01 is used to program more instruments with the same parameters or to obtain a copy of the programming.

FRONT PANEL DESCRIPTION

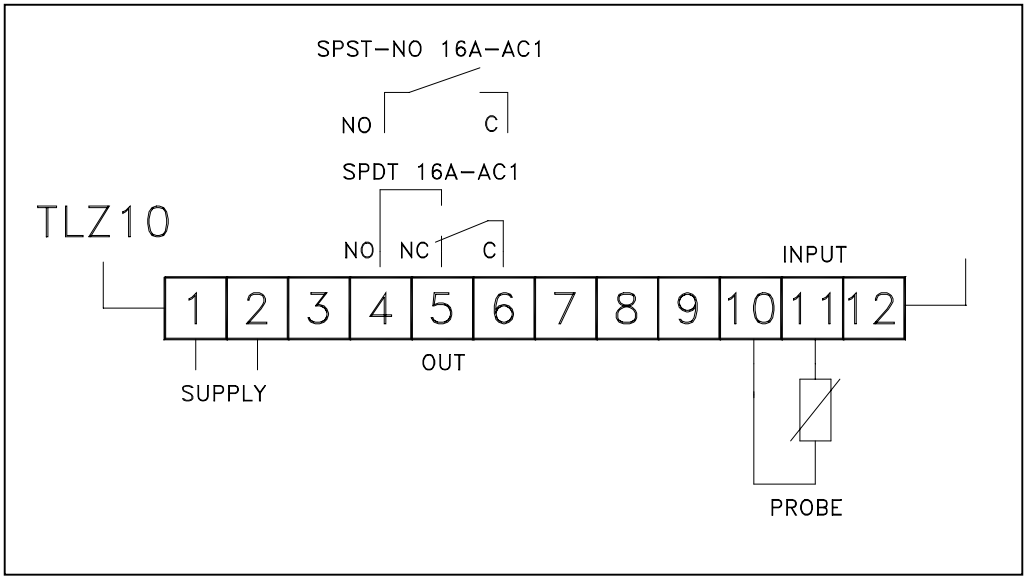


1 – Key P	It programs the Set Point and permits to get into the parameters programming.	**4 – Key U**	It is programmed for ON/OFF function (stand-by).
2 – Key DOWN	It decreases the values to be programmed and selects the different parameters.	**5 – Led SET**	Lighted, it indicates the entering into the Set Point programming or the stand-by.
3 – Key UP	It increases the values to be programmed and selects the different parameters.	**6 – Led OUT**	Lighted, it indicates that output OUT is ON. If flasing, the output is inhibited.

MECHANICAL DIMENSIONS (mm)



CONNECTIONS DIAGRAM



CERTIFICATIONS AND CONFORMITY

▲ CE Conformity: CEE EMC 89/36 (EN 61326)
CEE LT 73/23 and 93/68 (EN 61010-1)
▲ UL Conformity: File n. E 212227

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