

## PELTIER CELLS CONTROLLER

- PID CONTROL
- UP TO 2 OUTPUTS
- RS485



### FEATURES

| DISPLAY   |  | TLK33  |
|---|--|--|
| Single  |  | 4 red digit, h 12 mm   |
| INPUTS  |  |  |
| 4 different configurations                        |  | Thermocouples (0... 1000°C/32... 1832°F), K (0... 1370°C/32... 2498°F), S,R (0... 1760°C/32... 3200°F), T (0... 400°C/32... 752°F) and Infrared sensors J or K type + Thermoresistances Pt 100 3 wires (-200... 850°C/-328... 1562°F)  |
|   |  | Thermocouples J (0... 1000°C/32... 1832°F), K (0... 1370°C/32... 2498°F), S,R (0... 1760°C/32... 3200°F), T (0... 400°C/32... 752°F) and Infrared sensors J or K type + Thermistors PTC KTY 81-121 (990Ω at 25°C) (-55... 150°C/-67... 302°F) and Thermistors NTC 103AT-2 (10kΩ at 25°C) (-50... 110°C/-58... 230°F) |
|   |  | Linear signals 0/4... 20mA   |
|   |  | Linear signals 0/10... 50mV, 0/12... 60mV, 0/1... 5V, 0/2... 10V   |
| Digital inputs                                    |  | 2 digital inputs for free voltage contacts   |
| Accuracy  |  | ± 0,5% span ±1 digit, Tc S :±1% span ±1 digit  |
| OUTPUTS   |  |  |
| Up to 2, in voltage to direct drive Peltier cells |  | 12... 24 Vdc (equal to power supply) to direct drive Peltier cells max. 7A; up to 2 alarm outputs in voltage for SSR driving (10mA/ 10Vdc)   |
| Auxiliary supply                                  |  | 12 Vdc / 20 mA max.  |
| FUNCTIONAL  |  |  |
| Control   |  | PID dual action, Autotuning FAST, Selftuning algorithms, Fuzzy overshoot control   |
| Set Point   |  | 4 Set Points programmable  |
| Serial communication                              |  | RS485 with Modbus RTU protocol   |
| Baud rate   |  | 1200... 38400 baud, programmable   |
| GENERAL   |  |  |
| Power supply                                      |  | 12... 24 Vdc ±10%  |
| Power consumption                                 |  | 4 VA approx.   |
| Dimensions / Weight                               |  | 78 x 35 mm - depth 75.5 mm / 130 g approx.   |
| Connections                                       |  | Screw terminal block 2.5 mm <sup>2</sup>   |
| Mounting  |  | Flush in panel in 71 x 29 mm hole  |
| Front protection degree                           |  | IP65, mounted in panel with gasket   |
| Operating / storage temperature                   |  | 0... 50°C (32... 122°F) / -30... 70°C (-22... 158°F)   |
| Operating humidity                                |  | 20... 85 RH% without condensation  |
| Conformity  |  | Directive EMC 2004/108/CE (EN 61326-1), Directive BT 2006/95/CE (EN 61010-1)   |

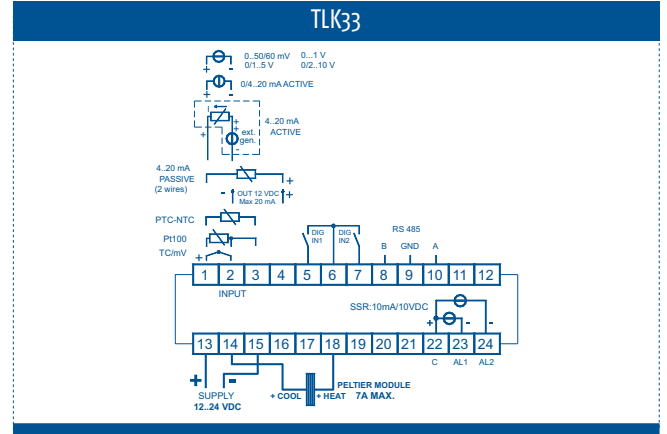
# HOW TO ORDER

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

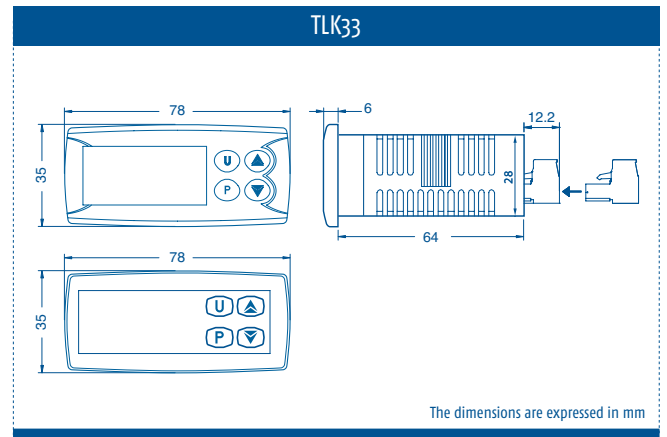
| TLK33                                   | CODE |
|---|------|
| <b>POWER SUPPLY</b>                     |      |
| 12... 24 Vdc                            | G    |
| <b>INPUT</b>                            |      |
| PT100 + TC (J,K,S,IRS), mV              | D    |
| PTC,NTC,mV + TC (J,K,S,IRS)             | E    |
| 0/4... 20mA                             | I    |
| 0/1... 5V, 0/2... 10V                   | V    |
| <b>CONTROL OOUTPUTS ( 2 FOR SSR )</b>   |      |
| 12... 24 Vdc for Peltier cells (7A max) | 0    |
| <b>OUT AL1</b>                          |      |
| Vdc for SSR driving                     | 0    |
| Not available                           | -    |
| <b>OUT AL2</b>                          |      |
| Vdc for SSR driving                     | 0    |
| Not available                           | -    |
| <b>SERIAL COMMUNICATION</b>             |      |
| RS485 + 2 digital inputs                | S    |
| Not available                           | -    |
| <b>DIGITAL INPUT</b>                    |      |
| Available                               | I    |
| Not available                           | -    |

TLK33 : When the RS485 is required, 2 digital inputs are always on board too.

# CONNECTIONS



# DIMENSIONS



THERMOSTATS AND CONTROLLERS

INDICATORS

SPECIAL CONTROLLERS AND "CUSTOM"

PAC SYSTEMS

PRE-PROGRAMMED SYSTEMS

PLC AND OPERATOR PANELS

I/O MODULES

SUPERVISION

ACCESSORIES