



48 x 48mm

## Features :

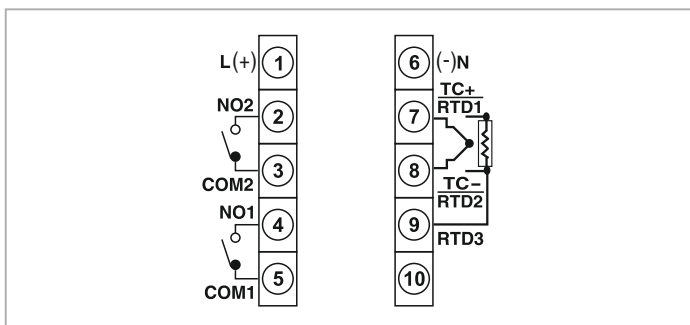
- ▶ 4+4 Digits, 7 Segment LED Dual display
- ▶ TC/ RTD Input
- ▶ ON - OFF/ PID Control auto tune
- ▶ Dual set points
- ▶ Control output: Relay
- ▶ Auxiliary output: Relay

Certifications : CE

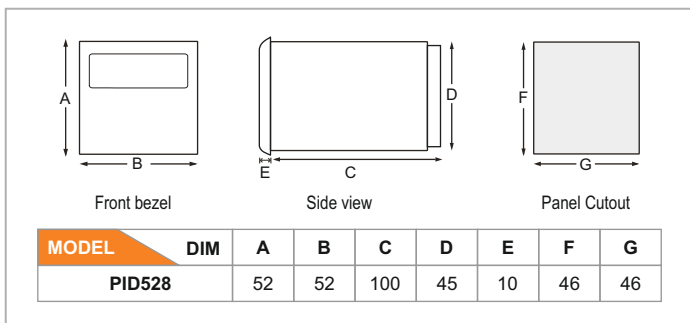
## Technical specifications

| Display specifications          |                                                                                                                                                                                                          |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display                         | 4+4 Digits, 7 Segment LED Dual display                                                                                                                                                                   |
| Height of display               | Upper display: 10mm ; Lower display: 7mm                                                                                                                                                                 |
| LED indication                  | 1: Main output ; 2: Alarm output ; T: Tune                                                                                                                                                               |
| Input specifications            |                                                                                                                                                                                                          |
| Inputs                          | Thermocouple (J, K, T, R, S) / RTD (PT100)                                                                                                                                                               |
| Resolution                      | 0.1/ 1° for TC/ RTD inputs (fixed 1° for R & S type TC input)                                                                                                                                            |
| Indication accuracy             | For J, K & T inputs: 0.25% of F.S. $\pm 1^\circ$<br>For R & S inputs: 0.5% of F.S. $\pm 2^\circ$ (20 min of warm up time for TC inputs)<br>For RTD input: 0.1% of F.S. $\pm 1^\circ$ (F.S. = Full Scale) |
| Temperature unit                | $^\circ\text{C}/^\circ\text{F}$ selectable                                                                                                                                                               |
| Input filter (FTC)              | 0.2 to 10.0 sec                                                                                                                                                                                          |
| Sampling time                   | 250 ms                                                                                                                                                                                                   |
| Output specifications           |                                                                                                                                                                                                          |
| Control output                  |                                                                                                                                                                                                          |
| Relay contact (SPST)            | 5A @ 230 VAC/ 30 VDC                                                                                                                                                                                     |
| Auxiliary output                |                                                                                                                                                                                                          |
| Relay                           | 5A @ 230 VAC/ 30 VDC, resistive                                                                                                                                                                          |
| Functional specifications       |                                                                                                                                                                                                          |
| Control action                  | Auto tune PID/ ON-OFF                                                                                                                                                                                    |
| Proportional band (P)           | 1 to 400.0 $^\circ\text{C}$                                                                                                                                                                              |
| Integral time (I)               | 0 to 3600 sec                                                                                                                                                                                            |
| Derivative time (D)             | 0 to 200 sec                                                                                                                                                                                             |
| Cycle time                      | 1 to 100 sec                                                                                                                                                                                             |
| Hysteresis width                | 0.1 to 99.9 $^\circ\text{C}$                                                                                                                                                                             |
| Manual reset value              | - 99 to 99 for 1° resolution ; - 99.9° to 99.9 for 0.1° resolution                                                                                                                                       |
| For auxiliary output            |                                                                                                                                                                                                          |
| Modes                           | Deviation, absolute                                                                                                                                                                                      |
| Hysteresis                      | 0.1 to 99.9 $^\circ\text{C}$                                                                                                                                                                             |
| Auxiliary supply specifications |                                                                                                                                                                                                          |
| Supply voltage                  | 90 to 270 VAC/ DC (50/ 60Hz)                                                                                                                                                                             |
| Power consumption               | 5 VA max @ 230 VAC                                                                                                                                                                                       |
| Environment specifications      |                                                                                                                                                                                                          |
| Temperature                     | Operating: 0 $^\circ\text{C}$ to 50 $^\circ\text{C}$ (32 to 122 $^\circ\text{F}$ ); Storage: 20 $^\circ\text{C}$ to 75 $^\circ\text{C}$ (- 4 to 167 $^\circ\text{F}$ )                                   |
| Humidity (non - condensing)     | 95% RH                                                                                                                                                                                                   |
| Mechanical specifications       |                                                                                                                                                                                                          |
| Mounting                        | Panel                                                                                                                                                                                                    |
| Weight                          | 200 gms                                                                                                                                                                                                  |

## Terminal connections



## Dimensions (All are in mm)



## Compliance

| Applicable EMI / EMC Standards |                |                                                                                                                                                                                                                                                                                                  |
|--------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Standard : IEC 61326-1 |                |                                                                                                                                                                                                                                                                                                  |
| Category                       |                | Standards Compliance                                                                                                                                                                                                                                                                             |
| ESD Immunity                   | IEC 61000-4-2  | Level III                                                                                                                                                                                                                                                                                        |
| Surge Immunity                 | IEC 61000-4-5  | +/- 2 kV common mode,<br>+/- 1 kV differential mode                                                                                                                                                                                                                                              |
| Radiated Susceptibility        | IEC 61000-4-3  | Level III, 80 to 1000MHz<br>Level II, 1.4GHz to 2GHz<br>Level I, 2GHz to 2.7GHz                                                                                                                                                                                                                  |
| Conducted Susceptibility       | IEC 61000-4-6  | Level II                                                                                                                                                                                                                                                                                         |
| Voltage Dips and Interruptions | IEC 61000-4-11 | <b>Dips</b> : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C)<br><b>Interruptions</b> : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C) |
| Conducted Emission             | CISPR-11       |                                                                                                                                                                                                                                                                                                  |
| Radiated Emission              | CISPR-11       |                                                                                                                                                                                                                                                                                                  |
| Electrical Fast Transient      | IEC 61000-4-4  | Level III                                                                                                                                                                                                                                                                                        |

## Ordering information

| Product code   | Output 1   | Output 2   | Supply voltage    | Certification |
|----------------|------------|------------|-------------------|---------------|
| PID528-1       | RELAY (5A) | RELAY (5A) | 90 to 270 VAC/ DC | ---           |
| PID528-1 V2-CE | RELAY (5A) | RELAY (5A) | 90 to 270 VAC/ DC | CE            |