

Johannesburg Branch  
 MIMIC COMPONENTS  
 Cape Town Branch  
 Mimic Cape



# MODULER TEMPERATURE CONTROLLER DTC-1X & DTC-1A

## TECH SPECS

|                      |                                                                                     |
|----------------------|-------------------------------------------------------------------------------------|
| Model                | DTC-1X & DTC-1A                                                                     |
| Dimension (HxWxD) mm | 76 x 27 x 116                                                                       |
| Input                | J/K/PT-100/PT.1                                                                     |
| Range                | J: 0 to 600° C, K: 0 to 1200° C,<br>PT-100 -99 to 400° C, PT-1.1: -99.9 to 400.0° C |
| Output               | 2 Relay (NO-C), 5A, 230V AC/28V DC                                                  |
| Control Action       | PID / TP/ ON-OFF ( Configurable )                                                   |
| Mode                 | Heating / Cooling / Alarm ( Configurable )                                          |
| Power Supply         | 24V DC                                                                              |

## APPLICATIONS

Packaging Machinery

Extrusion Machinery

Furnace & Boilers

Ovens & Incubators

Food Industry

# Technical Specifications

| Input                  |                                                                     |
|------------------------|---------------------------------------------------------------------|
| Input Type             | Thermocouple : ( J, K )<br>PT-100 2 Wire or 3 Wire<br>(Factory Set) |
| Display Range          | Refer ( Table 1 )                                                   |
| Accuracy               | ± 1% of FSD                                                         |
| ADC Resolution         | 10 Bits                                                             |
| Display Resolution     | Thermocouple : 1 °C<br>RTD : 0.1 °C                                 |
| Sample Rate            | 6 Sample / Sec                                                      |
| CJC Error              | ± 2 °C                                                              |
| Sensor Open            | All Input                                                           |
| Sensor Burnout Current | 1.10uA                                                              |
| RTD Excitation Current | 0.2mA                                                               |
| CMRR                   | >120 db ( Typical )                                                 |
| Input Impedance        | >1M                                                                 |
| Max Voltage            | 20V DC                                                              |

| Output               |                                        |
|----------------------|----------------------------------------|
| Control Output       |                                        |
| Control Type         | PID, TP, On-Off                        |
| Relay Control Output |                                        |
| Relay                | 2 Nos. (NO-C) Type                     |
| Rating               | 5A @230V AC / 28V DC<br>Resistive Load |

| Modbus Communication |                            |
|----------------------|----------------------------|
| Slave Address        | 1 to 127                   |
| Baudrate             | 2400,4800,9600,19200,38400 |
| Parity               | None, Even, Odd            |
| Datatype             | Sign, Integer, Float       |

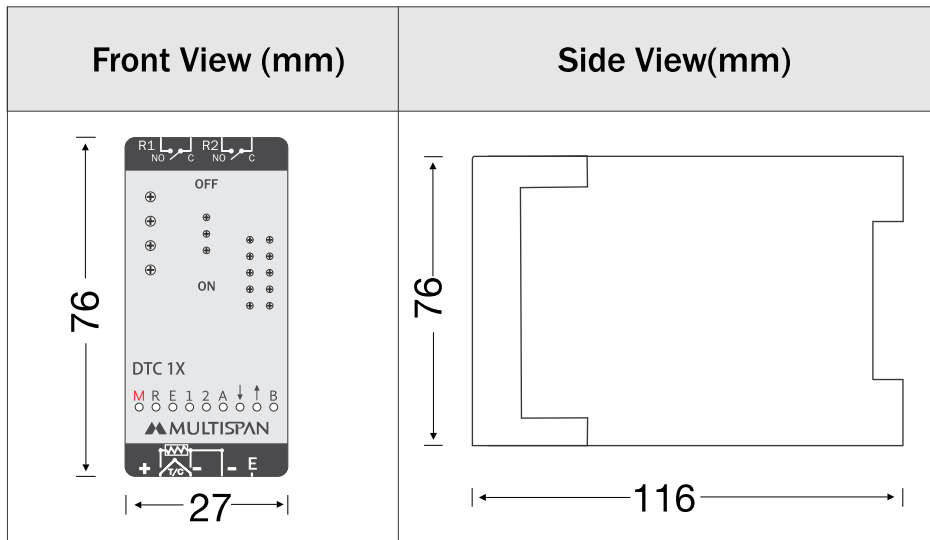
| Environmental         |                       |
|-----------------------|-----------------------|
| Operating Temperature | 0 to 55 °C            |
| Storage Temperature   | 0 to 70 °C            |
| Humidity              | 95% RH Non-condensing |

| Physical           |                 |
|--------------------|-----------------|
|                    | DTC-1X & DTC-1A |
| Front Bezel ( mm ) | 76(H) x 27(W)   |
| Depth behind panel | 116(D) mm       |

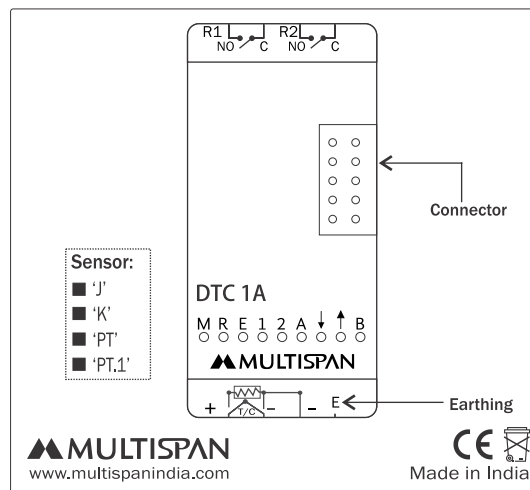
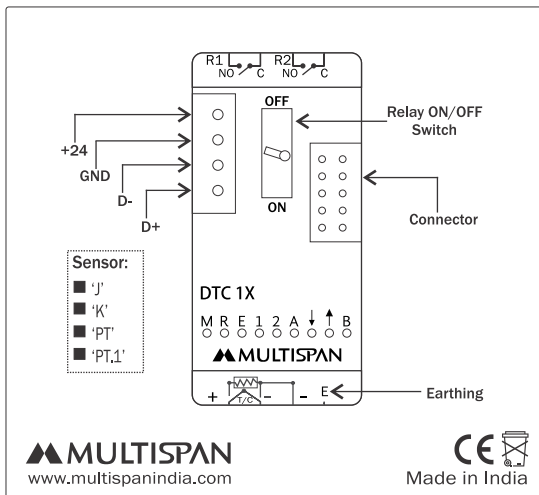
| Table 1 ( Sensor Range ) |                                  |
|--------------------------|----------------------------------|
| J                        | 0 to 600 °C                      |
| K                        | 0 to 1200 °C                     |
| PT-100 2 Wire or 3 Wire  | -99 to 400 °C, -99.9 to 400.0 °C |

| Power Supply |        |
|--------------|--------|
| Standard     | 24V DC |

## Mechanical Dimension



## Terminal Diagram



We reserves the right to change specifications without prior notice. Printing and typographical errors reserved.

Product improvement and upgrade is a constant procedure. So for more updated operating information & support contact us at Mimic Components 011-689-5700