# FEATURES


- Universal input
- Selectable output – analog (mA) or ON/OFF Relay
- Dual digital display along with bar display
- Simple 4 key user control
- Operation and Calibration through keyboard on front panel
- IP54 protection
- User friendly installation and operation

DC3010 – PID Controller is microcontroller based controller which offers versatility and accuracy for the most demanding control applications. The unit has an universal input which accepts direct signals from thermocouples, RTDs and linear voltage or current inputs and generates a control output signal of either 4 – 20 mA or time proportional relay output. Front panel control enables easy modification of system parameters. The digital display for process value and set point value along with bar display for output provides convenient monitoring of input and output signals. The control output type is PID action, which eliminates the need for continuous operator attention. Two independent auxiliary relays are fitted as standard with optional transmitter excitation supply.

## SPECIFICATIONS:

| | |
|---|---|
| Input | Universal TC, RTD and linear inputs (Refer Input table) |
| Accuracy | +/- 0.1% of span, +/- 1 count |
| Common mode rejection | 120 dB@ 50Hz |
| Normal mode rejection | 60 dB@ 50Hz |
| Input open protection | Upscale |
| Display | ▪ 4 digit 0.56″ 7 segment LED for Process Value<br>▪ 4 digit 0.39″ 7 segment LED for Set Point Value<br>▪ 10 segment red LED bar display for Output<br>▪ Individual status LEDs |
| Control type | PID |
| Control Action | Direct (Cool) and Reverse (Heat) |
| Control parameters | Proportional Band: 0 to 999.9 % of input span<br>Integral time (Reset): 0 to 6000 seconds (0 = OFF)<br>Derivative time (Rate): 0 to 3600 seconds (0 = OFF) |
| Auto / Manual Operation | Operator initiated from front panel , bumpless with in PB |
| Output | ▪ Current: 4 – 20 mA OR 0 – 20 mA<br>▪ Relay SPDT 3A / 230V AC resistive max |
| Load resistance | 0 to 600 ohms (For current output) |
| Alarm output | 2 no., 1 C/O contact relay output |
| Relay rating | 3A / 230V AC resistive max. |
| Compensations | Automatic – cold junction for TC, wire resistance for RTDs |

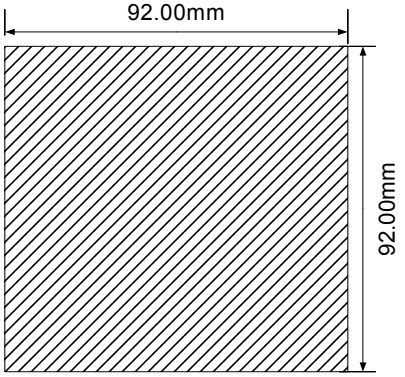
## contd. specifications:

| | |
|---|---|
| Input power supply | Universal SMPS suitable for 95 to 265V AC and 110 to 300V DC |
| ENCLOSURE: | |
| Enclosure | Flame Retardant ABS |
| IP Rating | IP54 (Front Panel) |
| Mounting type | Flush on panel |
| Panel cutout | 92 × 92 mm |
| Bezel dimension | 96 × 96 mm |
| Depth behind panel | 125 mm including terminals |
| Gross Weight | 480 gms |
| ENVIRONMENT: | |
| Operating temperature | 5 to 55 Deg.C |
| Operating humidity | Up to 95% non condensing |

## INPUT TABLE:

| INPUTS | TYPE | RANGE |
|---|---|---|
| Thermocouple | J | 0 to 700 Deg. C |
| | K | 0 to 1200 Deg. C |
| | R | -50 to 1765 Deg. C |
| | S | 0 to 1766 Deg. C |
| | T | -100 to 400 Deg. C |
| | E | -100 to 1000 Deg. C |
| | B | 250 to 1820 Deg. C |
| | N | 0 to 1800 Deg. C |
| RTD | PT100 | 0 to 200.0 Deg.C |
| | PT100 | 0 to 600 Deg.C |
| mA DC | 4 – 20 mA | -1999 to +9999 Field programmable |
| | 0 – 20 mA | |
| V DC | 1 – 5 V | |
| | 0 – 5 V | |

## DIMENSIONS IN mm:




PANEL CUTOUT

## ORDERING CODE:

DC3010 - [ ]

| Function |
|---|
| FS = Standard |

**SAMPLE CODE ORDER**:
**DC3010 – FS**
Standard Controller

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