

## FEATURES

- Universal or fixed input for RTD, thermocouple, current and voltage
- Keyboard calibration
- Red or Green display colour
- Engineering unit labels insertion
- Control action – ON / OFF, PI
- Compact size
- Rugged industrial design



The design of DC2010 Universal Process Controller is characterized by high reliability and precision, electrical noise and EMI immunity. These features make them ideal for industrial applications in Instrumentation and Process Control. They accept fixed or universal input that can be mA DC, Volts DC, mV DC, thermocouples, RTD or pulse input. The controllers are projected on modularity and flexibility concepts, having a single or dual relay output. DC2010 can be used for ON/OFF control application where the control action is reverse for heating and direct for cooling. The controller has two set points for relays. The controller is calibrated for all the basic input and the calibration is not required to be changed if the input type is changed. However if recalibration is required due to any error then calibration can be done through keyboard.

**TABLE FOR INPUT CODE AND TYPE CODE**

		INPUT CODE						
		0 mA DC	1 Volts DC	2 mV DC	3 RTD	4 Thermocouple	5 Pulse	6 Universal
TYPE CODE	0	Normal Scale 4 – 20 mA	Normal Scale 1 – 5 V	Normal Scale 15– 75 mV	PT100 1 Deg.C resolution	J	RPM	0
	1	Normal Scale 0– 20 mA	Normal Scale 0 – 5 V	Normal Scale 0– 75 mV	PT100 0.1 Deg.C resolution	K	NA	NA
	2	Centre Zero 4 – 20 mA	Centre Zero 1 – 5 V	Centre Zero 15– 75 mV	NA	T		
	3	Centre Zero 0– 20 mA	Centre Zero 0 – 5 V	Centre Zero 0– 75 mV		E		
	4	User Curve 4 – 20 mA	User Curve 1 – 5 V	User Curve 15– 75 mV		B		
	5	User Curve 0 – 20 mA	User Curve 0 – 5 V	User Curve 0– 75 mV		R		
	6	Others	Others	Others		S		

**NOTE:** 1) Type code is for Fixed inputs only; Universal input has type code as 0.  
2) Consult factory for 'Others'

**SPECIFICATIONS:**

No. of channels	1
Inputs	Refer Input & Type code table
Input Connection	Rugged Screw type terminal, suitable for wire size ranging from 0.2-2.5sq.mm
Input Impedance	For Thermocouples & mV inputs: >1 MΩ DC Volts: >100 KΩ mA inputs : <25 Ω
Display	4 digit 0.56" 7seg. Red LED Range -1999 to 9999
Accuracy	+/- 0.2% of FS, +/- 1 Digit
Noise Rejection	Common Mode 120dB or better Series Mode 60dB or better
Decimal Point	Programmable as 8888, 888.8, 88.88, 8.888 for linear inputs.
Power Supply	Universal 95 – 265Vac, 50Hz or 110 V – 300 V DC
Control action	ON / OFF, PI
Output Options	Single Relay Output or Dual Relay Output
Relay rating	5A / 230V AC resistive max
Battery Backup	EEPROM Nonvolatile Memory (Battery not required)
Automatic Compensations	Cold junction compensation for thermocouples Wire resistance compensation for three wire RTDs.
Open Sensor Indication	'OPEN' or 'OR' where applicable.
<b>PROTECTION</b>	
Sensor Burn out Protection	Programmable alarm ON/OFF
Set Point & Configuration Protection	Password protected - User and configuration menu
System Protection	Through hardware and software watch dog
<b>ENVIRONMENT</b>	
Operating Temperature	0 to +55 Deg. C
Operating Humidity	Up to 95% non condensing
Storage Temperature	-10 to +70 Deg. C
<b>ENCLOSURE</b>	
Mounting Type:	Flush on panel
Accessories:	Screw type mounting clamp
External Dimension:	48(H) x96 (W) x129 (D) mm
Panel Cutout:	46(H) x92 (W) mm, Depth behind panel: 119mm
Weight:	0.25 Kg. approx.

**ORDERING CODE:**

