

FEATURES

- ❑ Universal input
- ❑ Control action – ON / OFF or PI
- ❑ Simple 4 key user control
- ❑ Operation & Calibration through keyboard on front panel
- ❑ 95 – 265V AC universal power supply
- ❑ User friendly installation and operation
- ❑ 0.56" [DC4010] and 0.8" [DC4010L] display height option



DC4010 / DC4010L is an advanced Microcontroller based indicating controller used in majority of industrial processes. The indicating controller can accept analog inputs from RTDs, Thermocouples, current and voltage input with provision of single or dual output. The controller is calibrated for all the basic inputs 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. DC4010 can be used for On/ Off control application or PI control action in case of SSR output.

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
Linear (V / mA)	0 – 5 V / 0 – 20 mA	-1999 to +9999
	1 – 5 V / 4 – 20 mA	Field programmable

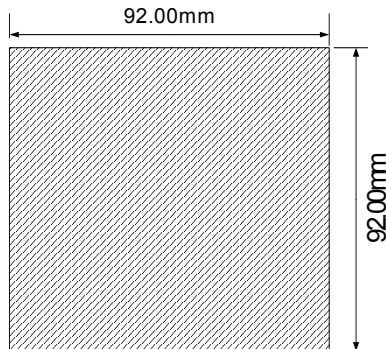
SPECIFICATIONS:

No. of channels	1
Inputs	Universal inputs (Refer Input Table) or Linear input (voltage/current)
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
Display	- 4 digit 7seg. Red LED, Size: 0.56" for DC4010 OR 0.8" for DC4010L
Square root extraction	Provided built-in for linear inputs
Automatic Compensations	-Cold junction compensation for thermocouples -Wire resistance compensation for three wire RTDs.
Accuracy	+/- 0.1% of FS, +/- 1 digit for Linear inputs +/- 0.2% of FS, +/- 1 digit for others
Decimal Point	Programmable as 8888, 888.8, 88.88, 8.888 for Linear Inputs
Noise Rejection	-Common Mode 120dB or better -Series Mode 60dB or better

contd. SPECIFICATIONS:

Relay output (optional)	Upto two 1 CO, 5A / 230 V AC resistive max. Relay or SSR Output
Transmitter Excitation Voltage(optional)	24V DC/30mA max.
Control action	On / Off or PI – Factory Set (as per ordering code)
OTHER OPTIONS: 1. Retransmission Output 2. Communication port	1. Isolated, programmable 4 – 20mA. (Note: Retransmission option is non isolated if excitation voltages are used) 2. RS232 or RS485 MODBUS RTU
Battery Backup	EEPROM Nonvolatile Memory (Battery not required)
Power Supply	Universal 95 – 265V AC, 50Hz or 110 – 300 V DC
Open Sensor Indication	'OPEN' or 'OR' where applicable.
PROTECTION Sensor Burn out Protection: Set Point & Configuration Protection: System Protection:	Programmable alarm ON or OFF Password Protected – User & configuration menu Through hardware and software watch dog
ENVIRONMENT Operating Temperature: Operating Humidity: Storage Temperature:	0 to +55 Deg. C Up to 95% non condensing -10 to +70 Deg. C
ENCLOSURE Enclosure: IP Rating: Mounting Type: External Dimension: Panel Cutout:	Flame Retardant ABS IP54 (Front panel) Flush on panel 96(H) x96 (W) x125 (D) mm 92(H) x92 (W) mm, Depth behind panel: 125mm including terminals
Gross Weight	480 gms

DIMENSIONS IN mm (Panel Cutout):-



SAMPLE ORDER CODE
DC4010 – FS – TL – 1MR – 2MR – 3M4
 0.56" Controller, Standard On/Off, Linear input, 1st output relay, 2nd output relay, RS485 port

ORDERING CODE:

DC4010 DC4010L	-	-	-	-	-
Function	Type of Input	Output-1	Output-2	Output-3 (optional)	
FS = Indicator / Standard On-Off FP = PI	TU = Universal TL = Linear Input (mA /V)	1M0 = None 1MR = Relay 1MS = SSR	2M0 = None 2MR = Relay 2MS = SSR	3M0 = None 3M2 = RS232 port 3M4 = RS485 port 3MA = with 4-20mA retransmission	

Note: Select DC4010 for 0.56" display and DC4010L for 0.8" display