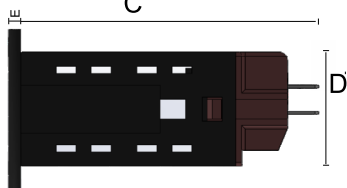
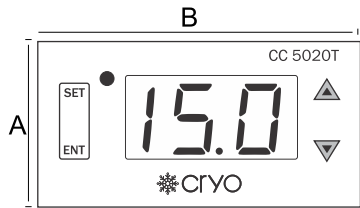


Technical Specification

Model	CC 5020T
Display	3 Digit 0.56" 7 Segment White/Red Display
Size (mm)	40 (H) x 83 (W) x 78 (D) mm
Panel Cutout	30 X 71 mm
Input	NTC Thermistor
Output	1 Relay, 1 C/O contact, 20A (Resistive)
Range	-40°C to 90.0°C
Power Supply	230V AC, 50/60Hz, Approx 3VA
Operating Temperature	0°C to 55°C
Relative Humidity	Up to 95% RH Non Condensing

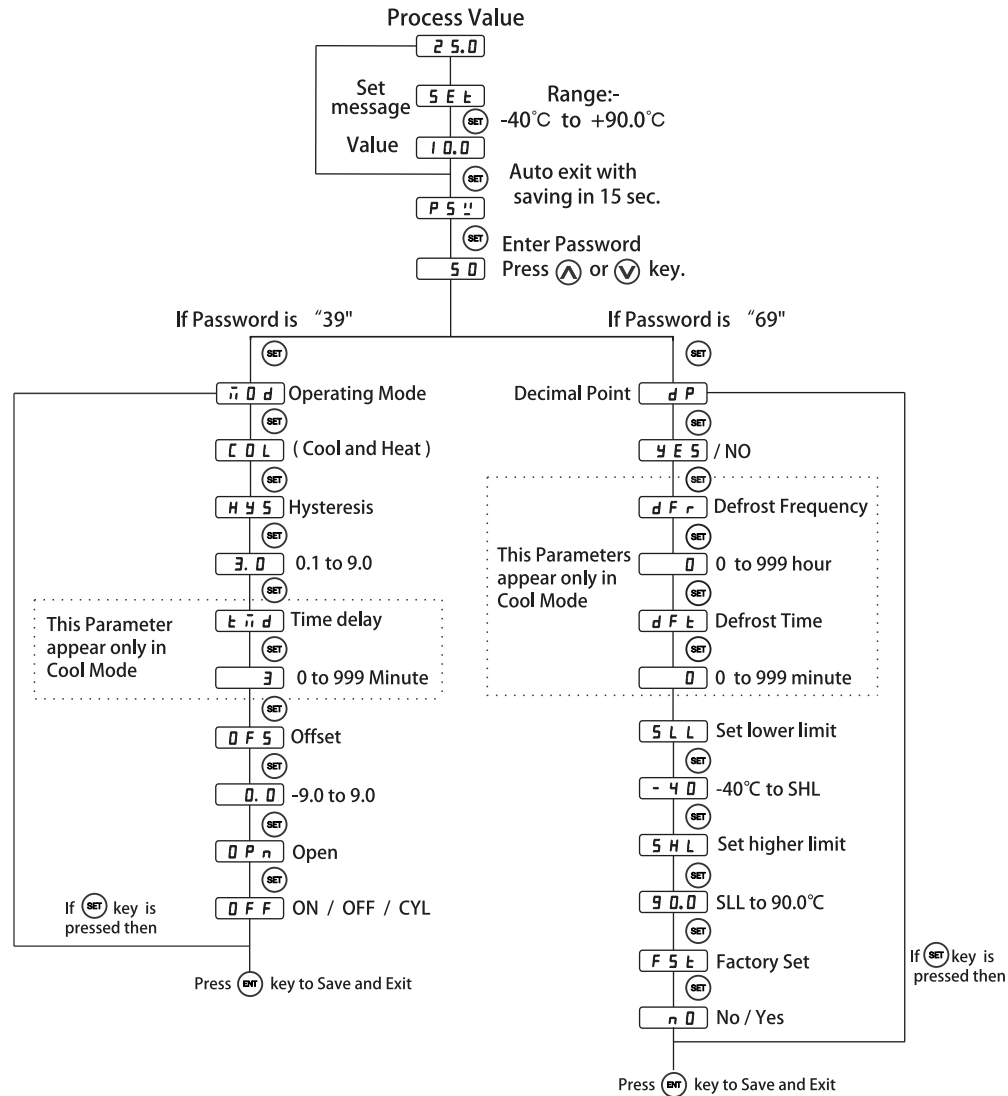
MECHANICAL INSTALLATION



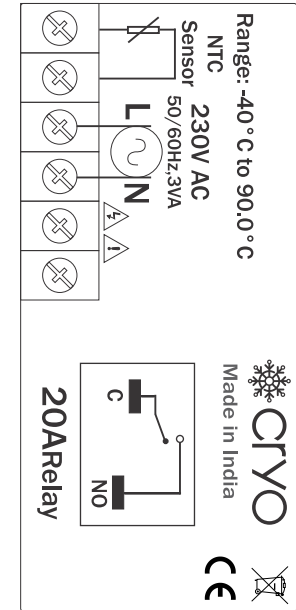
MODEL	A	B	C	D	E
DIMENSIONS	40mm	83mm	78mm	30mm	3.25mm

Parameter Settings

Press **▲** or **▼** key to change parameter value



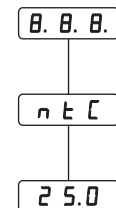
Wiring Diagram (5020T)



Note:

- 1) Press **SET** key to set the SETPOINT
- 2) Press **SET** key to go to next parameter.
- 3) Auto exit with saving in SETPOINT is for 15 sec, and in Hysteresis, Time delay, Defrost Rate, Defrost Time Parameter it is 15 sec with saving.

When instrument is powered on, Display shows :



DFR & DFT Modes

DFR (in Hour) and DFT (in Minutes) specifies Defrost rate and Defrost time.

i.e - If DFR is set to 2 and DFT is set to 40, after 2 hours power applied to instrument, defrost will take place for 40 minutes. This Cycle repeat after every 2 hours.

"DFM" will be shown for 1 Sec & temperature will be shown for 2 Sec. This cycle will repeat until defrost Time not completed.

Manual Mode

If $\text{Ⓐ} + \text{Ⓜ}$ key pressed for 3 Sec, The relay goes in manual Defrost mode and display shows "OFF" message. Press and hold $\text{Ⓐ} + \text{Ⓜ}$ key to turn on relay.

Factory Set Data		
Parameter	DP = Yes	DP = No
Hysteresis	3.0	3.0
Time Delay	3 min	3 min
Defrost Frequency	0 hours	0 hours
Defrost Time	0 min	0 min
Set Lower Limit	-40°C	-40°C
Set Higher Limit	90.0°C	90°C
Offset	0.0°C	0°C
Open	OFF	OFF

- 1) In password "69", Last parameter is FST it have selection of "YES" and "NO". Select "Yes" option and press Ⓜ key to restore the factory set data as shown in above table
- 2) Setpoint, DP selection and Mode will not change, when you restore the factory data.
- 3) If Factory set data is selected while manual defrost mode is running, instrument will remaining in manual defrost mode.

3) Cable used for connection to power source, must have a cross section of 1mm² or greater. These wires should have insulations capacity made of at least 1.5kV.

4) When extending the thermocouple lead wires, always use thermocouple compensation wires for wiring for the RTD type, use a wiring material with a small lead resistance (5Ω max per line) and no resistance differentials among three wires should be present.

5) A better anti-noise effect can be expected by using standard power supply cable for the instrument.

Installation Guidelines

1) This equipment, being built-in-type, normally becomes a part of main control panel and such in case the terminals do not remain accessible to the end user after installation and internal wiring.

OPN

- Sensor open or Break
- Sensor is not connected
- Temperature value goes down to -50 or goes up to 99.9

In password menu "39", parameter "OPN" have three selection of "ON", "OFF", "CYL".

ON = In case of sensor break, then Relay will continuously ON.

OFF = In case of sensor break, then Relay will continuously OFF.

CYL = In case of sensor break, Relay operate in cycle of 10 Mins ON and 4 Mins OFF.

SET LOW LIMIT (SLL)

Set Low Limit (Range : -40°C to SHL) SLL indicate Setpoint's Lower Limit it is lock at some specific value. Setpoint can not be Set lower than this value.

If Temperature reached down to this value, then display shows "LD!" message for 1 Sec. and present value display for 2 Secs.

SET HIGH LIMIT (SHL)

Set High Limit (Range : SLL to 90°C) SHL indicate Setpoint's Higher Limit it is lock at some specific value. Setpoint can not be Set Higher than this value.

If Temperature reached Higher to this value, then display shows "HI 9" message for 1 Sec. and present value display for 2 Secs.

Safety Precautions

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If all the equipment is not handled in a manner specified by the manufacturer, it might impair the protection provided by the equipment.

=> Read complete instructions prior to installation and operation of the unit.

 **WARNING** : Risk of electric shock.

Warning Guidelines

1) To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement. Do not touch the terminals while power is being supplied.

2) To reduce electro magnetic interference, use wire with adequate rating and twists of the same of equal size shall be made with shortest connection.

2) Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.

3) Circuit breaker or mains switch must be installed between power source and supply terminal to facilitate power 'ON' or 'OFF' function. However this mains switch or circuit breaker must be installed at convenient place normally accessible to the operator.

4) Use and store the instrument within the specified ambient temperature and humidity ranges as mentioned in this manual.

Maintenance

1) The equipment should be cleaned regularly to avoid blockage of ventilating parts.

2) Clean the equipment with a clean soft cloth. Do not use isopropyl alcohol or any other cleaning agent.

3) Fusible resistor must not be replaced by operator.

Mechanical Installation Guideline

- 1) Prepare the panel cutout with proper dimensions as show above.
- 2) Fit the unit into the panel with the help of clamp given.
- 3) The equipment in its installed state must not come in close proximity to any heating source, caustic vapors, oils steam, or other unwanted process by products.
- 4) Use the specified size of crimp terminal (M3.5 screws) to wire the terminal block. Tightening the screws on the terminal block using the tightening torque of the range of 1.2 N.m.
- 5) Do not connect anything to unused terminals.



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