



Features

- Selectable sensor Input (T/C & RTD)
- Control Action : T.P Control / ON-OFF
- Input Signal Conditioning (Digital Filter & Offset)
- Selectable Control Output (Relay / SSR Drive)
- Time Delay for Compressor
- Universal supply voltage (90 ~ 270 VAC)
- Programmable Setpoint Limits
- Program Lock function

Technical Specifications

Display Specification

| | | |
|----------------|--|------------|
| Digits | 4 Digits Dual Row 7 Segment LED Display | |
| LED Indication | 1 - Control Output Status | |
| Height | PV (White) | SV (Green) |
| | 0.56" | 0.56" |

Keys

4 Controlling keys for configuration and operation



Auxiliary Supply Specification

| | |
|----------------|--------------|
| Supply Voltage | 90 - 270 VAC |
|----------------|--------------|

Input Specification

| | |
|------------------------|---|
| Sensor Input | Thermocouple - J, K, R, S RTD - Pt-100 |
| Resolution | T/C - 1°C Pt-100 - 1°C / 0.1°C |
| Accuracy | 0.3% FSD |
| Temperature Unit | °C / °F |
| Sampling Rate | 250 m Sec |
| CJC Error | ± 2°C |
| Sensor Open | All Input |
| Sensor Burnout Current | 1.10uA |
| RTD Excitation Current | 0.2mA |
| Input Impedance | >1M |
| Max Voltage | 20 VDC |



Make In India



Accurate



Reliable



Affordable



User Friendly

Output Specification

| | |
|----------------|--|
| Control Output | Relay / SSR Drive (User Selectable) |
| Relay | 5A @ 250 VAC / 30 VDC |
| SSR Drive | 12 VDC @ 30mA |

Environmental Specification

| | |
|-------------|-------------------------|
| Temperature | Operating - 0 to 50°C |
| Storage | -20° to 75°C |
| Humidity | 95% RH (Non-condensing) |
| Protection | IP 65 (Front Side) |

General Description

| | |
|---------------------|--|
| Model | AI-5981 |
| Weight (Gms) | 250 |
| Enclosure | Molded ABS |
| Color | Black |
| Accessories | 1 Pair of Mounting clamp |
| Terminal Cable Size | Barrier Type terminal cable Size (2.5 mm ²) |

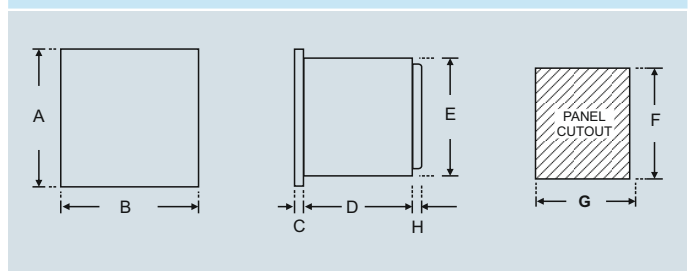
Certification

None

Functional Specification

| | |
|-------------------|--|
| Control Action | T.P. Control / ON-OFF |
| Control Logic | Heat / Cool |
| Proportional Band | 0.5 to 99.9°C |
| Cycle Time | 1.0 to 100.0 sec |
| Hysteresis | J, K, R, S, RTD - 1 to 100°C RTD.1 - 0.1 to 100.0°C |
| Delay | 0 to 500 sec |

Mechanical Dimensions



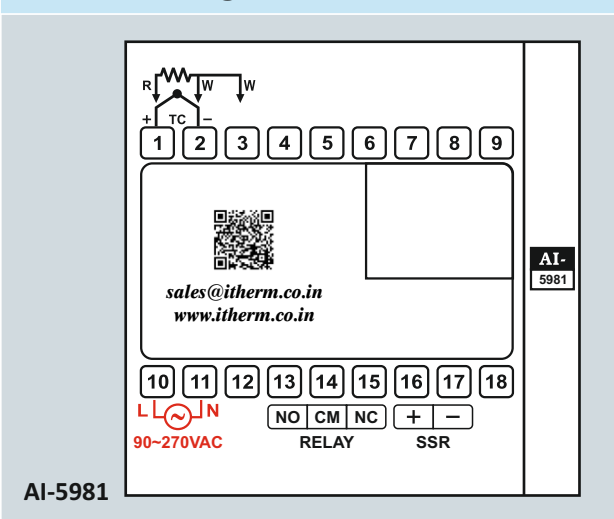
Mechanical Dimensions

| Model | Dim | A | B | C | D | E | F | G | H |
|---------|-----|----|----|----|----|----|----|----|---|
| AI-5981 | | 96 | 96 | 10 | 45 | 89 | 92 | 92 | 9 |

Order Code : AI-5981 Series

| Control Action | Size | No. Of Digits | No. of Output |
|-----------------|--------------|---------------|---------------|
| 5 (ON-OFF / TP) | 9 (96X96X53) | 8 Digits | One |

Terminal Diagram



Input Sensor Range

| Sensor Input | Range | Resolution | Accuracy |
|-------------------------|------------------|------------|----------|
| Thermocouple (J) Type | 0 ~ 760 °C | 1 °C | ± 1 °C |
| Thermocouple (K) Type | -99 ~ 1300 °C | 1 °C | ± 1 °C |
| Thermocouple (R) Type | 0 ~ 1700 °C | 1 °C | ± 1 °C |
| Thermocouple (S) Type | 0 ~ 1700 °C | 1 °C | ± 1 °C |
| Pt-100(RTD) | -100 ~ 450 °C | 1 °C | ± 1 °C |
| Pt-100(RTD.1) | -99.9 ~ 450.0 °C | 0.1 °C | ± 0.3 °C |