

# THE CLEAN ROOM MONITOR

**HUMIDITY TEMPERATURE  
DIFF. PRESSURE**



## Model AI-CRM3-1

The Clean Room Monitor is designed to measure the vital parameters of Temperature, Humidity & Differential Pressure in Clean Room Applications.

The Model AI-CRM3-1 is designed for minimum cabling & easy flush mounting in Modular Wall or Brick Walls of Clean Rooms. The sensor for humidity & temperature is externally provided so that the sensor can be mounted in the Operation Theatre & the Display can be outside the Operation Theatre. The differential pressure sensor is built inside the Clean Room Monitor with 2 Nos. Hose Nipples for room & corridor connection.

The instruments find immense use in Pharma Clean Rooms, Hospitals, Operation Theatres, APIs, Bulk Drugs, Electronic Hardware Manufacturing Plants, Test Plants, Green Houses, etc. Easy integration to Building Management Systems ( BMS ) with the RS 485 Modbus RTU Protocol Communication allow easy set up & great control.

The Display of the AI-CRM3-1 is a large 1" High Super Bright Display with integrated buzzer alarm for process limit violation alert for all the 3 parameters of temperature, humidity & differential pressure . The display LEDs also show the alarm status for easy identification & follow-up remedial action.

# Technical Specifications:

- **Sensor Type**                    1) Combination External Humidity & Temperature Sensor  
2) Built In Piezo Resistive Sensor for Differential Pressure
  
- **Range**                            1) -30.0 to +50.0 Deg. C typical for Temperature  
2) 0.0 to 100.0 %RH typical for Relative humidity  
3) -500 to +500 Pascals / -50.0 to +50.0 mm.W.C.  
(Any other customized range as per user specifications)
  
- **Resolution**                    Fixed 0.1 for both Temperature & Relative humidity, 0.1 mm. W.C.  
or 1 Pascal for Differential Pressure
  
- **Accuracy**                        1)  $\pm 0.5^{\circ}\text{C}$  for -30 to  $50^{\circ}\text{C}$  for Temperature  
2)  $\pm 1.8\%$  for 10 to 95% RH for Relative humidity.  
3)  $\pm 0.5\%$  F.S. for Differential Pressure
  
- **Display**                            3 Line Red 7 Segment LED Display.  
4 Digits for Differential Pressure on Line 1  
4 Digits for Temperature ( Deg. C) on Line 2  
4 Digits for % R.H. (Humidity) on Line 3
  
- **Differential Pressure Entry**    2 Nos. 4 mm. Hose Nipples at top of clean room monitor enclosure
  
- **Setting**                            By 4 keys on the front stainless steel panel
  
- **Buzzer**                            Integrated buzzer for Alarm Hi & Lo in case of process violation of  
any of the 3 parameters
  
- **Supply Voltage**                24VDC, 500mA
  
- **Mounting**                        Wall mounting / Modular Wall mounting with Stainless Steel Front  
Flush Plate for Clean Rooms
  
- **Sensors**                            External Humidity & Temperature Sensor in Stainless Steel Front  
Flush Plate Enclosure .  
Built-in differential pressure sensor with Brass Hose Nipples  
(Chrome Plated) for Differential Pressure At Rear ( 4mm x 2 Nos.)
  
- **Communication**                RS 485 Modbus RTU Protocol

# Technical Specifications:

- **Dimension**                      Enclosure : 115(W) X 150(H) X 40(D) mm.  
   Stainless Steel Front Plate : 145W x 160 (H) mm.
- **Enclosure**                      M.S. Powder Coated Body with Stainless Steel Front Flush Plate for  
   Modular Wall Mounting / Optional Brick Wall Mounting
- **Weight**                              700 gms. Approx.



Manufactured By :  
ACE INSTRUMENTS

( An ISO 9001-2008 TUV Nord Certified Company )

Plot No.77, Shaktipuram, Industrial Estate Kukatpally, Prashantinagar, Hyderabad – 500018. India.

Phones : +91-40-23078848, 23078849, 32901226, 23830848 Fax : +91-40-23830848

Email : [sales@alwaysace.com](mailto:sales@alwaysace.com) | Web : [www.alwaysace.com](http://www.alwaysace.com)