

FEATURES:-

- The Precimeasure Smart Breather helps in keeping the transformer or its bladder in a healthy dry condition.
- Moisture ingress can cause rapid deterioration of the transformer oil and insulation and the transformer's life can be maintained high if moisture is kept out.
- Precimeasure Smart breather is a fully automatic, microprocessor controlled, self-regenerating, dual columned, silica gel moisture guard for transformers.
- During the transformers normal breathing process, moisture is absorbed by the silica gel and the moisture thus absorbed is driven out to the atmosphere during the automatic regeneration process.



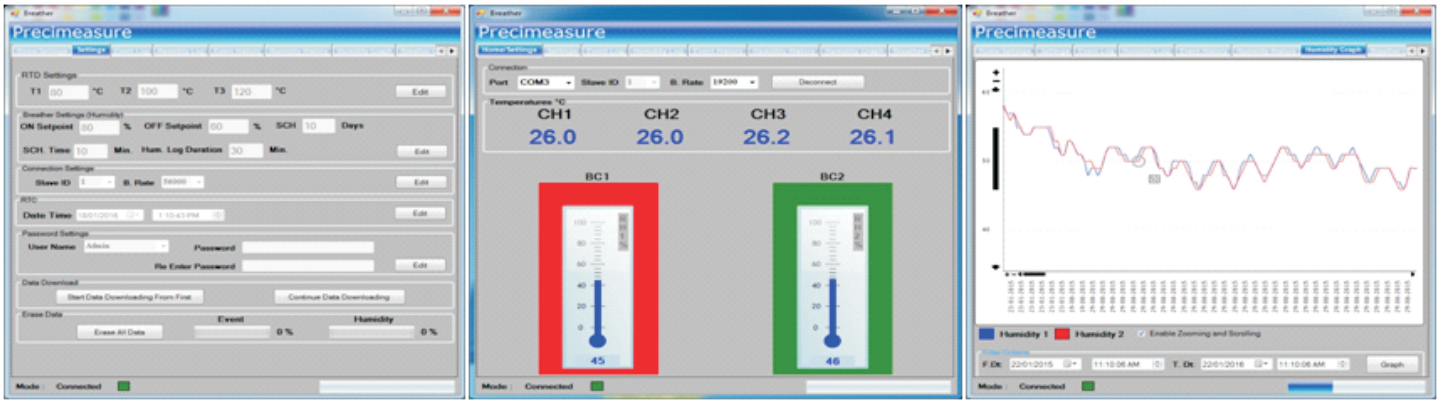
CONSTRUCTION:-

- The gel columns consist of a central heater and suitable heat dissipation arrangement for drying the gel. During regeneration process, the moisture from the gel is driven out in the form of steam which condenses as water droplets onto the gel column external wall and the water thus collected is scavenged through the bottom discharge port.
- Considering the tropical dust laden atmospheres in many locations, the Precimeasure Smart Breather retains the oil cup dust inhibitor like in the conventional silica gel breathers.

OPERATION:-

- The regeneration process is started when the scheduled time for regeneration is reached or when the moisture content in the gel exceeds a set limit. The schedule can be selected in days from 1 to 99 days.
- The regeneration is done by controlled heating between the set upper and lower temperature values for the set regeneration duration. The regeneration is terminated when the set time duration is reached, but only after the ensuring that the humidity reaches a pre set low value. The re-gen time duration can be set up to 180 minutes. The regeneration cycles for the two columns are staggered such that the effective interval between the regeneration cycles for the columns is halved. The settings can be easily modified from the controllers LCD panel.
- It is ensured that at least one of the gel columns is always on normal breathing mode while the other one is under regeneration. The fail safe mode ensures that the transformer's breathing route is never cut out, even during a power failure.
- A normally open solenoid valve prevents possibility of moisture ingress to the transformer during the regeneration process. In addition the silicagel columns are put back into the normal mode after a cooling time to prevent any moisture evolved during the regeneration process to be breathed into the transformer.

REMOTE MONITORING:-

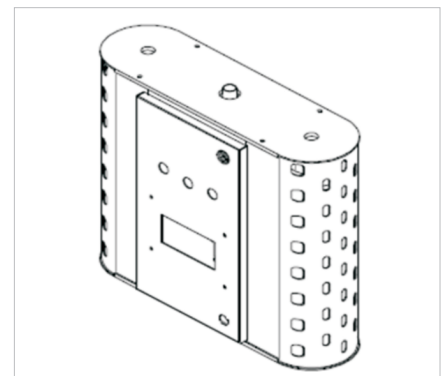
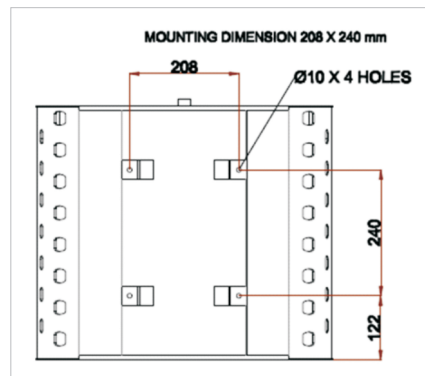
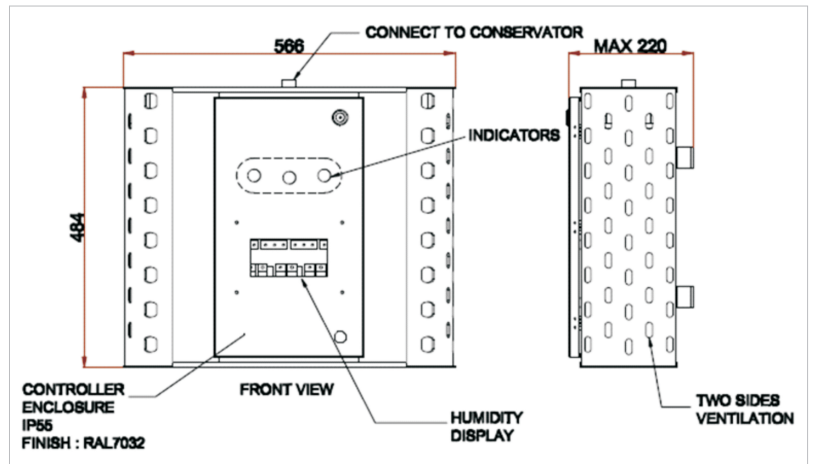


- The controller can store data log for the past 90 such regeneration cycles. The controller can also be connected for data acquisition by SCADA using Modbus RS 485 or IEC 61850 protocols as required by customer specifications.
- The smart breather operation can easily be monitored from a remote computer including making adjustments to the various settings. User friendly software is provided for this purpose.
- The event log provides information about the history of breather regenerations with date and time. Graphical display of the operations and humidity values with time is also available.
- In order to prevent unauthorized changes being made to the settings, suitable password interlocks are provided. In addition, Parameter Settings can also be done from the breather panel through the LCD display.

TECHNICAL DATA:-

- Degree of protection - IP 55
- Operating Temperature - 0-80 Degree
- Power Supply - 230V AC/ 110V AC
- Silica Gel Capacity - PSB 2002 - 2 Kg / PSB 2004 - 4 Kg
- Output - 4-20mA Analog Output
- Communication - Modbus RS485 or IEC 61850 Protocols.
- 3 LED's to Display the Status of the breather
- LCD Display for Easy Programming.
- Data Logging Facility provided.

OVERALL DIMENTIONS:



Disclaimer : Precimeasure reserves the right to make any changes in the specification without prior notice.