

RH+T+DP CLEAN ROOM MONITOR

enviroDPMS

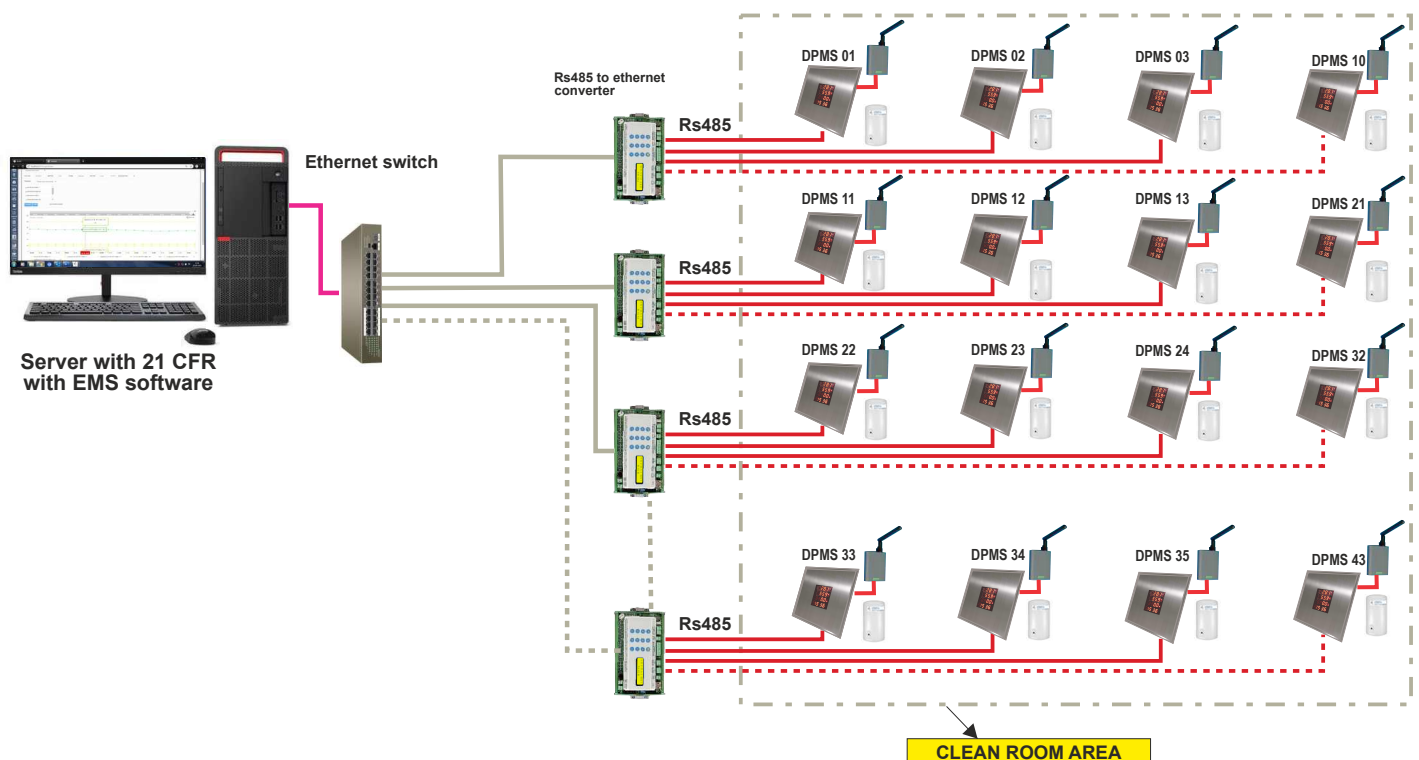
Assists in GMP and Data Integrity in multiple pharma clean rooms

FEATURES

- Microcontroller based
- Wireless RH, Temperature & In-built DP measurement
- 7 segment 4 digit display
- Real Time Clock with battery back-up
- Software calibration for channel
- MODBUS / TCP multidrop communication for PLC, SCADA, etc.
- 24 VDC, 1 AMP Power Supply
- FDA 21 CFR Part 11 Compliance EMS software
- Advanced digital RH+T sensor technology
- 10,000 transaction capacity (optional)



BMS - CLEAN ROOM MONITORING SYSTEM



SPECIFICATIONS

All specifications at ambient of 25 °C, unless specified otherwise

INPUTS		
No. of inputs	3 (RH, T, DP)	
Input RH	a) External Wireless Digital RH	
Input T	a) External Wireless Digital T Sensor	
Input DP	a) 0-1 V DC b) 4~20 mA	
Input AHU	c) In-built digital DP sensor Potential free digital input	
Input Range	%RH 0~100% RH Temperature 0°C ~ 50°C (factory resettable) DP -250 ~ 900Pa, -25 ~ 90 mmWC (user selectable)	
Accuracy		
For External Sensor		
%RH	± 5% RH (depending on sensor)	
Temperature	± 0.5% (depending on sensor)	
DP	± 3% (depending on sensor)	
INDICATION		
Display type	7 segment 4 digit LED display	
SENSOR SPECIFICATIONS		
Battery Operated	3V, 2 AA Size	
Operating Frequency	2.4 Ghz (Free Band)	
Transmission Range	For Sensor: 60 mtrs (free space) For Coordinators: 500 mtrs (free space) Network Extender: 500 mtrs (free space)	
OUTPUTS		
Buzzer output	External Potential free relay output for Buzzer	
CLOCK		
Real time clock	Available	
Battery backup	Available (Optional)	
ENCLOSURE		
Construction	a) External RH+T sensing b) In-built DP sensing, External wireless RH + T	
MOC	SS304	
Faceplate	MS, powder coated	
Body	Front Plate - 210(W)x210(H) Back Plate - 190(W)x150(H)x32(D) mm	
Dimensions (in mm)		
Mounting		
Modular Puff panel	a) 50 mm or more b) 100 mm or more	
Brick wall	50 mm or more	
Cutout (in mm)	173(W) x 165(H)	
COMMUNICATION		
System	CPU	32 bit MCU
Communication interface	Communication	Rs485
Protocol		MODBUS, Enviro Proprietary
Slave ID		User programmable, 1~128
Parameters (ONLY MODBUS)		
Process Variables		Read only
Setpoints		Read & write from the host computer
Alarm Status		Read only
Hysteresis		Read & write from the host computer
Alarm Activation Delay		Read & write from the host computer
Power On Activation Delay		Read & write from the host computer
RTC Synchronization		Read & write from the host computer
PROGRAMMABLE PARAMETERS		
Setpoint		
% RH		0 ~ 100
Temperature		0 ~ 50.0 °C
DP		-19.9 ~ 19.9 mmWC -199 ~ 199 Pa
Resolution		0.1 for RH & T 0.1 for DP unit mmWC 1 for DP unit Pa
Hysteresis		User selectable
Alarm activation delay		User selectable, 0~250 min
Setpoint lock		Password Protected
OTHER		
Programming		Through Capacitive Touch keypad
Supply voltage		24 V DC, 1 amp
Operating ambient temperature		0~50 °C
Relative humidity		Below 90%, non condensing
SOFTWARE FEATURES		
Software Architecture		Multiple Cleanrooms & Multiple Plants can be monitored centrally
Alarm & Alerts		Alarms & Alerts by way of Pop-ups, Email & SMS can be sent to multiple authorities
Interface		Cloud Enabled Web Interface
Database		SQL Server
Audit Trail		Database (SQL) & GUI both supports audit trail
Reports		Audit Report, MIS Reports, Alarm Report & Graphs for audit & analysis. Also value added customization of reports is possible

We help pharma companies in GDP, GMP & 21 CFR compliance....

- ➔ With enviroDPMS & its EMS software it is now possible to simultaneously & accurately monitor DP, RH & Temperature in multiple clean rooms in the Pharma plant, with due Data integrity about the logging of these parameters.
- ➔ The clean room door open/close event is closely monitored & duly logged for any DP changes which are correlated for audits.
- ➔ In event of any deviations pop-up alarms are generated on the monitor of central administrator along with text message & email to concerned officials also a hooter alarm is generated in the corridor.
- ➔ Feature Rich MIS reports are generated in PDF format in compliance with the 21 CFR guidelines of the US FDA thereby assuring accuracy & Data integrity.

Note: All specifications are subject to change without notice due to continuous improvements.

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