

# FLAMEPROOF RH+T+DP CLEAN ROOM MONITOR

## enviroDPMS

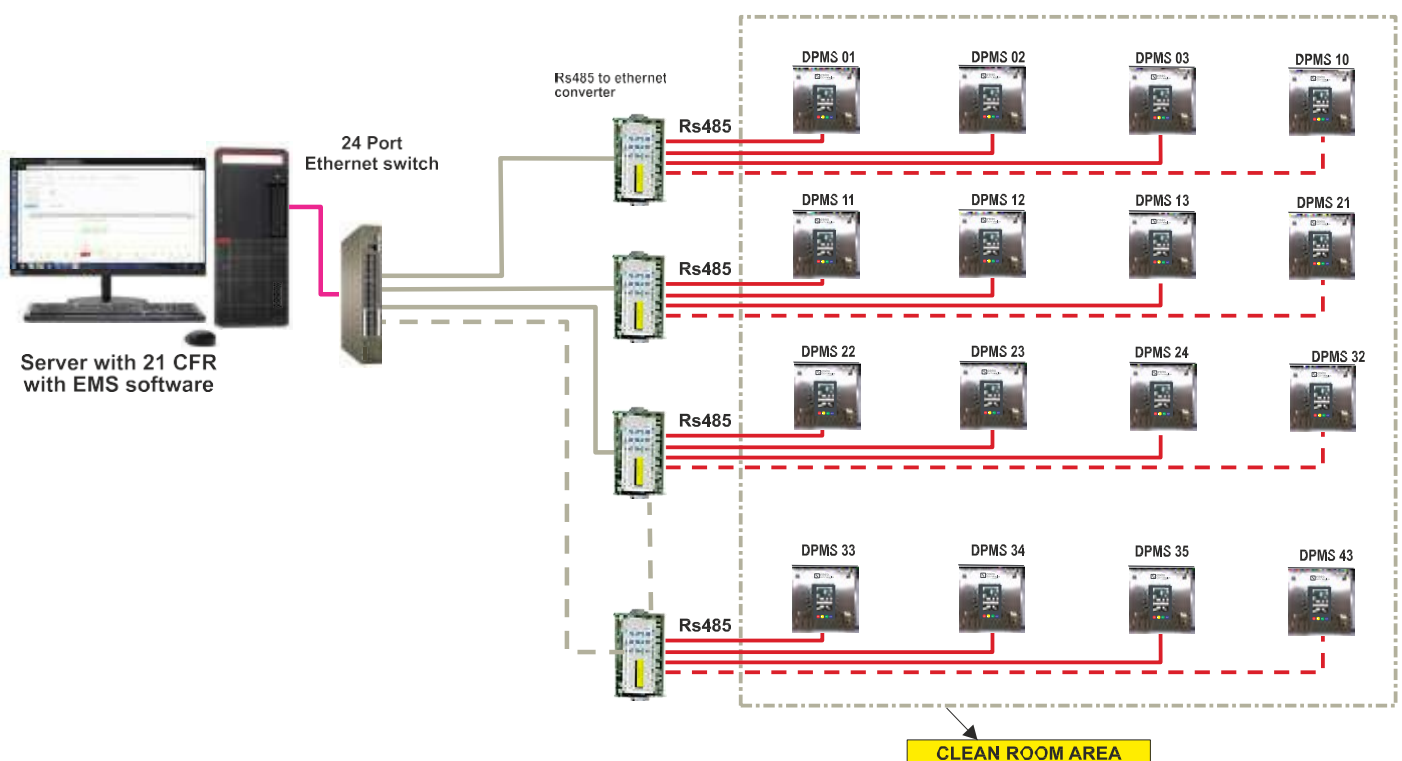
Assists in GMP and Data Integrity in multiple pharma clean rooms

### FEATURES

- Microcontroller based
- RH, Temperature & DP measurement (FLAMEPROOF)
- 7 segment 4 digit display
- Real Time Clock with battery back-up (optional)
- MODBUS multidrop communication for PLC, SCADA, etc.
- 24 VDC, 1 AMP Power Supply
- FDA 21 CFR Part 11 Compliance EMS software  
*(not applicable for MODBUS)*
- Obtains T+RH data from PLC or SCADA software



### BMS - CLEAN ROOM MONITORING SYSTEM



# SPECIFICATIONS

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

<b>INPUTS</b>			<b>COMMUNICATION</b>		
No. of inputs		3 (RH, T, DP)	System		32 bit MCU
Input RH		a) 0-1 VDC b) 4~20 mA c) In-built Digital RH + T Sensor	CPU		
Input T		a) PT-100 b) 0-1 VDC c) 4~20 mA e) In-built Digital RH + T Sensor	Communication Interface		RS485/TCP-IP LAN/4-20mA output
Input DP		a) 0-1 VDC b) 4~20 mA c) In-built digital DP sensor	Communication		MODBUS, Enviro Proprietary
Input AHU		Potential free digital input	Protocol		MODBUS, Enviro Proprietary
Input Range	%RH	0~100% RH	Slave ID		User programmable, 1~128
	Temperature	PT-100: -90°C ~ 390°C (user selectable) Digital: 0°C ~ 100°C (user selectable)	Parameters (ONLY MODBUS)		
	DP	-250 ~ 900Pa, -25 ~ 90 mmWC (user selectable)	Process Variables		Read only
Accuracy			Setpoints		Read & write from the host computer
For In-built Sensors			Alarm Status		Read only
%RH		± 2% RH	Hysteresis		Read & write from the host computer
Temperature		± 0.3 °C	Alarm Activation Delay		Read & write from the host computer
DP		± 1.5% of reading ± 5 Pa, ± 1.5% of reading ± 0.5 mmWC	Power On Activation Delay		Read & write from the host computer
For External Sensor			RTC Synchronization		Read & write from the host computer
%RH		± 2% RH (depending on sensor)			
Temperature		± 0.5% (depending on sensor)			
DP		± 0.5% (depending on sensor)			
<b>INDICATION</b>			<b>PROGRAMMABLE PARAMETERS</b>		
Display type		7 segment 4 digit LED display	Setpoint		
<b>OUTPUTS</b>			% RH		0 ~ 100
Buzzer output		External Potential free relay output for Buzzer	Temperature		-40.0 ~ 90.0 °C
<b>CLOCK</b>			DP		-19.9 ~ 19.9 mmWC
Real time clock		Available Available	Resolution		-199 ~ 199 Pa
Battery backup		(Optional)			0.1 for RH & T
<b>ENCLOSURE</b>			Hysteresis		0.1 for DP unit mmWC
Construction			Alarm activation delay		1 for DP unit Pa
Material		Die Cast Aluminium Alloy LM-6	Setpoint lock		User selectable
Faceplate		SS304 (optional)			User selectable, 0~250 min
Certification		Flameproof for Gas Groups, IIA/IIB, Zone 1&2			Password Protected
Protection		IP55			
Dimensions (in mm)		Without Plate - 210(W)x210(H)x50(D) With Plate - 260(W)x250(H)x60(D) mm	<b>OTHER</b>		
Mounting			Programming		Through Capacitive Touch keypad
Modular Puff Panel		a) 50 mm or above b) 100 mm or above	Supply voltage		24 VDC, 1 amp
Cutout (in mm)		225(W) x 225(H)	Operating ambient temperature		0~50 °C
			Relative humidity		Below 90%, non condensing
			<b>SOFTWARE FEATURES</b>		
			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.

## Enviro technologies

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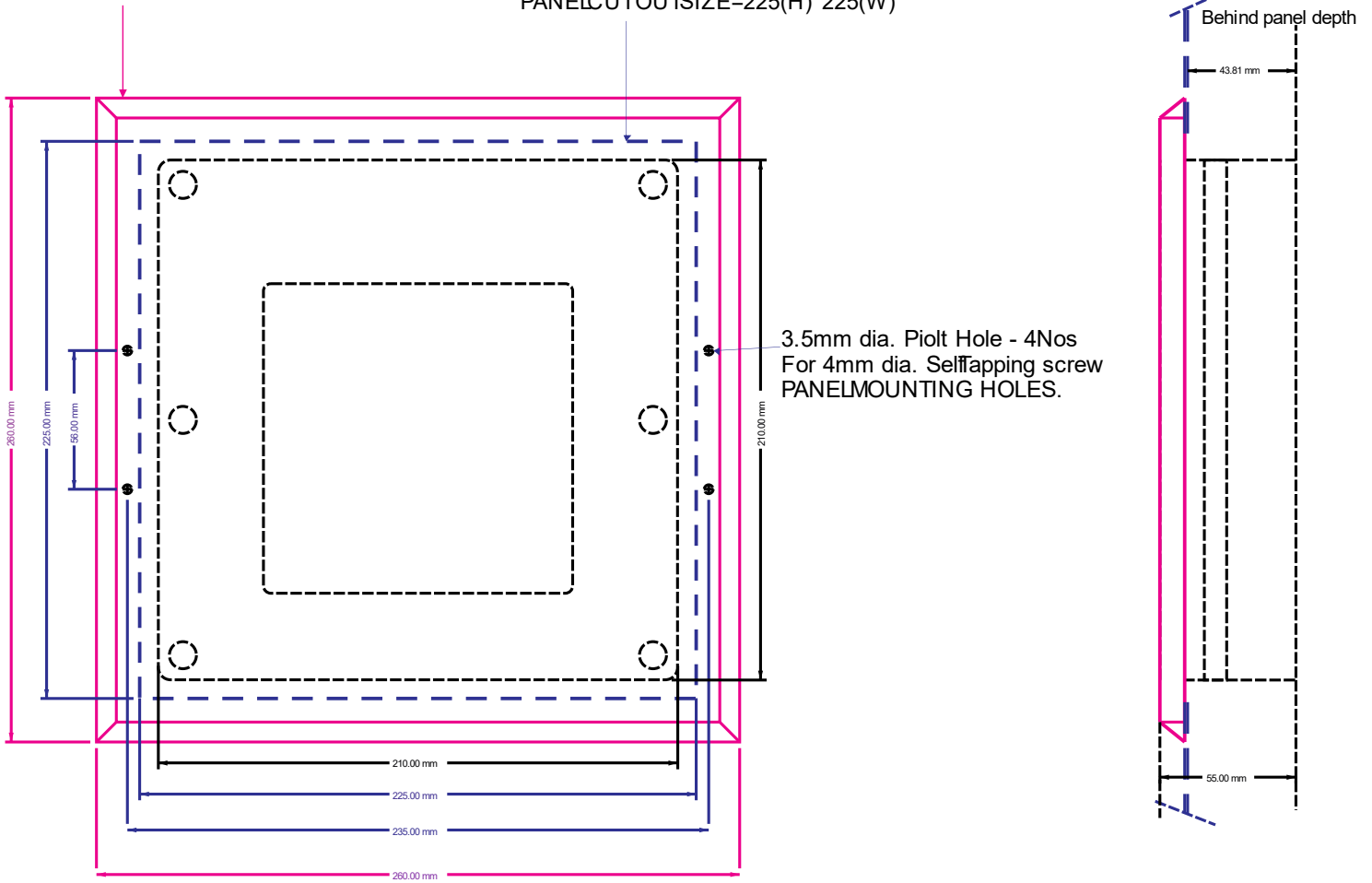
We proudly champion



# ETF Series(flameproof)

SS FRONPLATE

PANELCUTOOUTSIZE=225(H)\*225(W)



## Connector Details

