

# Clean Room Monitor

CRM

LED

4.3"LCD

7"LCD



4.3" TFT / 7" TFT / LED

Date & Time Display

BACnet with data backfilling

No touch Acknowledgement

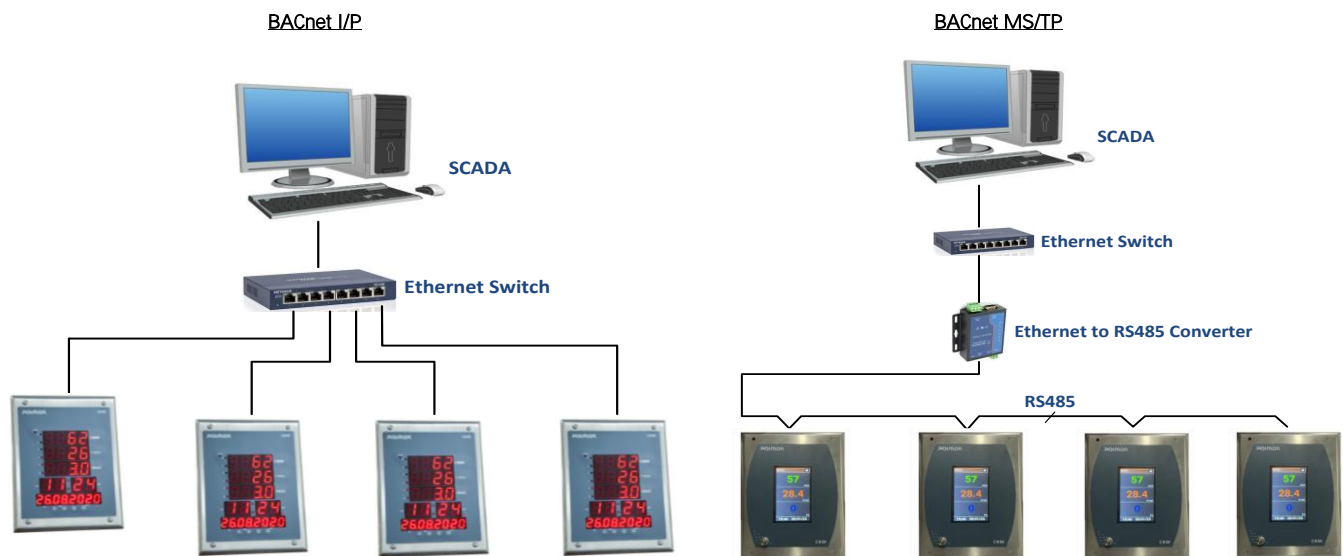
Capacitive Touch

Remote Configurations

## Features

- 4.3" TFT 480x272 Color LCD
- 7" TFT 800x480 Color LCD
- 7 Segment LED (0.8" for PV & HH:MM), 0.56" for date (DD.MM.YYYY)
- BACnet/IP/ BACnet MS/TP/ MODBUS TCP/IP/ MODBUS RTU
- Inbuilt memory for Backfilling data and alarm events
- Wide range of Input Options for Remote Tx Interface / Inbuilt Sensors / Extended Sensor (up to 10 mtr)
- User Selectable Screens (1/2/3 Parameters with or without Clock)
- Time Synchronization with NTP Server
- Programmable Set points for RH, Temp & DP
- (High & Low) with Visual and Audio Annunciation
- User configurable (enable/disable) Inbuilt Buzzer to provide audible Process value violation
- Option for Buzzer Acknowledgement and Snoozing
- 3 Analog O/Ps 4-20mA / 0-10V
- Relay O/P (3 C NO)
- AHU ON/OFF, Trip Status
- Dual door feedback
- Password Protected calibration & programming modes
- Safe area applications with SS Faceplate, flush mount (Brick Wall / Modular Wall) and On Wall Mount for Clean Room Application
- Clean Room compatible Concealed Enclosure Applications
- Environmental Monitoring for Clean Rooms with Synchronized Clock
- Data logging

## Network Architecture



# Specifications

## Technical

	Inbuilt Sensor	External Sensor
No. of channels	1/2/3 with or without Clock (for Hrs & Min 24hrs mode)	
Display	4.3" TFT Colour LCD Display + Touch Viewing Display Size: 70.7 x 38.8mm 7" TFT Color LCD Display+Touch Viewing Display Size:154.1x85.9mm LED 0.8" Seven Segment Display for PV, time(HH:MM) & 0.56" for date (DD:MM:YYYY)	
Display Screens	Any Combination of RH, Temp, DP, Time & Date	
Input type	DP: Inbuilt RH: Inbuilt/Extended sensor Temp: Inbuilt/Extended sensor	DP: Analog Input (4-20mA/0-10V) RH: Analog Input (4-20mA/0-10V) Temp: Analog Input (4-20mA/0-10V)
Measurement Range	DP: (±125, ±500, ±1000)Pa , (±12.5, ±50.0, ±100.0)mmWC RH: 0 to 100% Temp: 5.0 to 60.0°C	Programmable
Input Accuracy	DP: Range ±125 Pa/ ± 12.5mmWC: ±1.25% of Reading ± 2 count Range ±500 Pa/ ±50.0mmWC: ±1.5% of Reading ± 3 count Range ±1000 Pa/ ± 100.0mmWC: ±1.5% of Reading ± 3 count RH : ±2% for the range 10 to 90% and ±3% for remaining Temp: ±0.3°C for the range 5.0 to 60.0°C and ±0.4°C for Remaining	0.15% of FSR ±1 count
Resolution	DP : 1 Pascal / 0.1mmWC RH : 1% Temp : 0.1°C	Programmable
Response time	DP : 1 second RH & Temp : 8 second	1 sec
Clock Accuracy	± 1 seconds with respect to NTP Server time ± 2 Minutes/Year (Stand Alone mode)	
Time Synchronization	SNTP	
Analog outputs	3 (4-20mA / 0-10VDC)	
Digital Inputs	5 (2/4 AHU ON/OFF,Trip, Dual door status )	
Digital Outputs	3 (1C, NO & 3 C,NO)	
Communication	Ethernet / RS485	
Comm. Protocol	BACnet IP / BACnet MS/TP / MODBUS TCP/IP / MODBUS RTU	
Memory	524288 Records for bacnet (Includes Alarms events)	
Buzzer	Piezo Electric	
Keypad	Touch for LCD & Tactile for LED	
Calibration	Software	

## Power Supply

Input Supply	18-36Volt AC/DC, 12Watt POE (48V, 15Watt)
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## Physical

Enclosure	SS 304 Face Plate with Flush Mount MS Back Box
Dimensions (L X W X D)	170x230x45mm
Mounting Options	Brick Wall, Modular Wall and On Wall (Order Optional Accessories)
Terminals	2.5 Sq.mm Screw Terminal

## Environmental

Operating Temperature	5-50°C
Humidity	10-95%RH, Non-Condensing

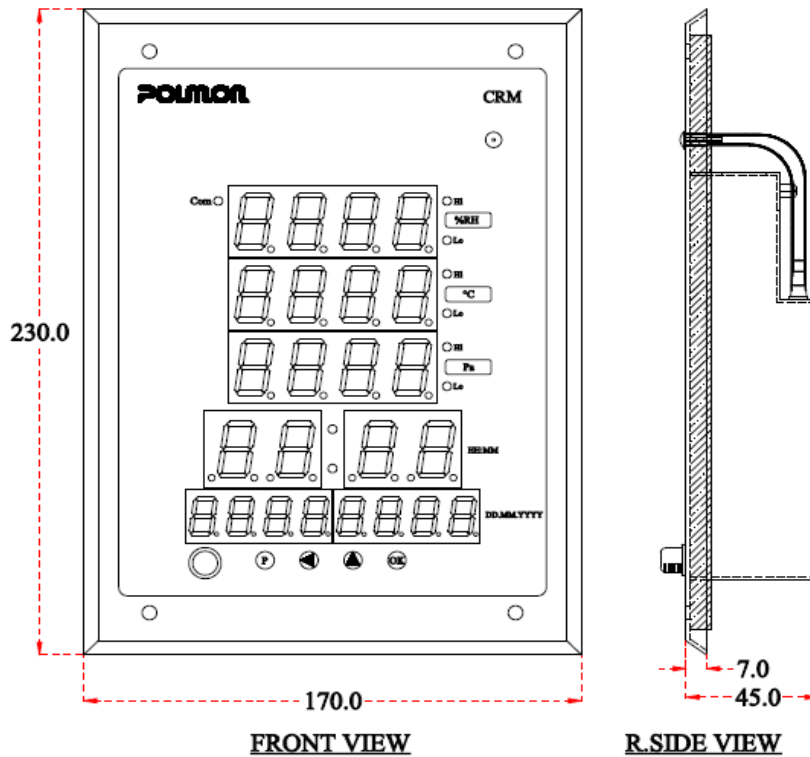
## Clean Room Monitor

### Ordering Information

CRM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Model No.	Enclosure Type	RH Input	Temp Input	DP Input	Clock	DP Range	Digital Inputs	Display type	Inbuilt Memory	Communication	Analog O/P	Buzzer	Alarm ACK	Potential Free contact	Power Supply	D1, D2, D3 Display Parameter Selection	Future Use	
CRM	R- NFLP	0 - None	0 - None	0 - None	0 - None	0 - None	0 - None	1 - 4.3" TFT	0 - None	0 - None	0 - None	1 - PV	0 - Front panel keys	1 - One C.NO	1 - 20-30V AC/DC	0 - LCD		
	F- FLP	1 - Analog Input #	1 - Analog Input #	1 - Analog Input #	1 - Time HH:MM	1 - ±125 Pa	1 - AHU ON/OFF, Trip (24V DI-2 No's)	1 - 4.3" TFT	1 - Yes	1 - BACnet IP	1 - 4-20mA (3No's)		1 - No touch	2 - Two C.NO	2 - POE (20-65V)	1 - R, T, D		
		2 - Integral Sensor front	2 - Integral Sensor front	2 - Integral Sensor front	2 - Time & Date HH:MM DD.MM.YYYY	2 - ±500 Pa	2 - Dual door Feedback (24V DI-2 No's)	3 - 0.8" LED		2 - BACnet MS/TP	2 - 4-20mA (2No's)			3 - Three C.NO		2 - R, T, X		
		3 - Sensor with extended cable 10 meter	3 - Sensor with extended cable 10 meter			3 - ±1000 Pa	3 - AHU & Dual door feedback (24V DI-4 NO's)	4 - 7" TFT		3 - MODBUS TCP/IP	3 - 4-20mA (1No)					3 - X, T, D		
		4 - Remote comm. Input	4 - Remote comm. Input	4 - Remote comm. Input		4 - ±12.5 mmWC	4 - DI Inputs (4No's)			4 - MODBUS RTU	4 - 0-10V (3No's)					4 - X, T, X		
						5-±50.0 mmWC					5 - 0-10V (2No's)					5 - X, D, X		
						6- ±100.0 mmWC					6 - 0-10V (1No)					6 - R, X, T		
																7 - T, X, D		
																8 - D, T, R		
																9 - X, X, D		
																10 - D, T, X		
																11 - D, X, X		
																N - Customized		

**Note:** # Specify Analog input range for 4-20mA / 0-10VDC

D1 - Display1, D2 - Display2, D3 - Display3, R - RH, T - Temp, D - DP, X - No Display, N - Specify the display sequence if it is not in ordering information.



Mounting Drawing

