

Clean Room Monitor

CRM

LED

4.3"LCD

7"LCD

4.3" TFT / 7" TFT / LED

Date & Time Display

BACnet with data backfilling

Capacitive Touch

Remote Configurations

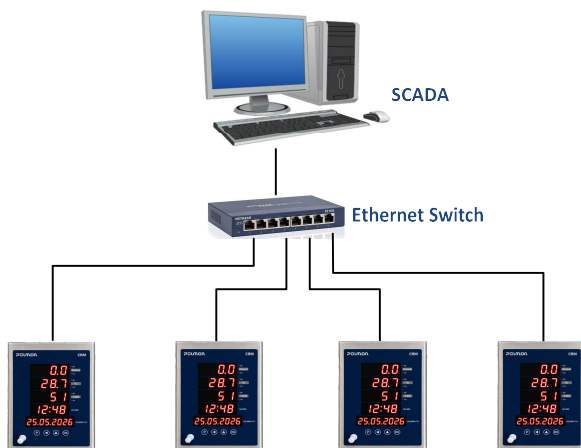


Features

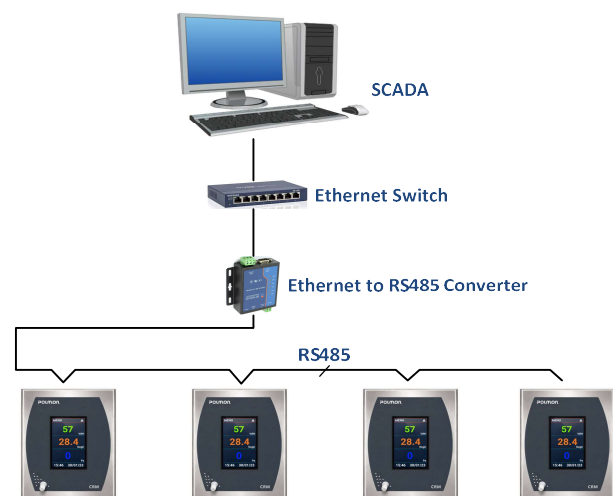
- 4.3" TFT 480x272 Color LCD
- 7" TFT 800x480 Color LCD
- 7 Segment LED (0.8" for PV & HH:MM), 0.56" for date (DD.MM.YYYY)
- BACnet/IP/ MODBUS TCP/IP/ MODBUS RTU
- Inbuilt memory for Backfilling data and alarm events
- Wide range of Input Options for Remote Tx interface / Inbuilt Sensors / Extended (up to 10 mtr)
- User Selectable Screens (1/2/3 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

BACnet I/P / MODBUS TCP/IP



MODBUS RTU



Specifications

Technical		
	Inbuilt Sensor	External Sensor
Model No	CRM-R (Non flame Proof) / CRM-F (Flame Proof)	
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	DP: Analog Input (4-20mA/0-10V)
	RH: Inbuilt/Extended sensor	RH: Analog Input (4-20mA/0-10V)
	Temp: Inbuilt/Extended sensor	Temp: Analog Input (4-20mA/0-10V)
Measurement Range	DP: (±125, ±500, ±1000)Pa(±12.5, ±50.0, ±100.0)mmWC	Programmable
	RH: 0 to 100%	
	Temp: 5.0 to 60.0°C	
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	0.15% of FSR ±1 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	
Resolution	DP : 1 Pascal / 0.1mmWC	Programmable
	RH : 1%	
	Temp : 0.1°C	
Response time	DP : 1 second	1 sec
	RH & Temp : 8 second	
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 / 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)

Physical

	CRM-R (Non Flame Proof)
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
	CRM-F (Flame Proof)
Enclosure	Aluminium Alloy Ex'd' for gas Groups IIA, IIB, Zone1, Zone2
Dimensions (LxWxD)	220x240x60mm
Mounting	Brick Wall, Modular Wall and On Wall (Order Optional Accessories)
Terminals	2.5 Sq.mm Screw Terminal

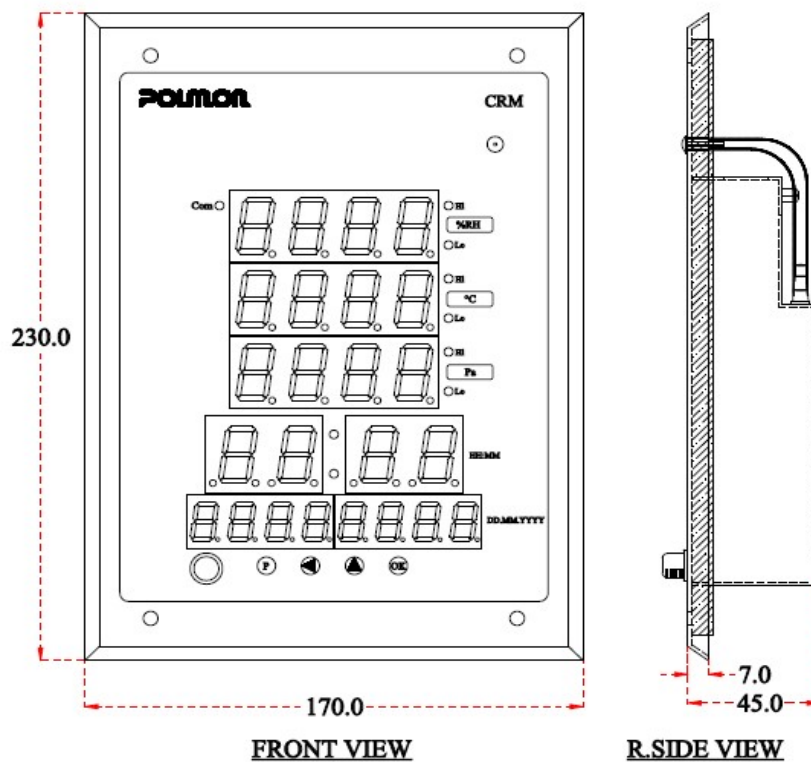
Environmental

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

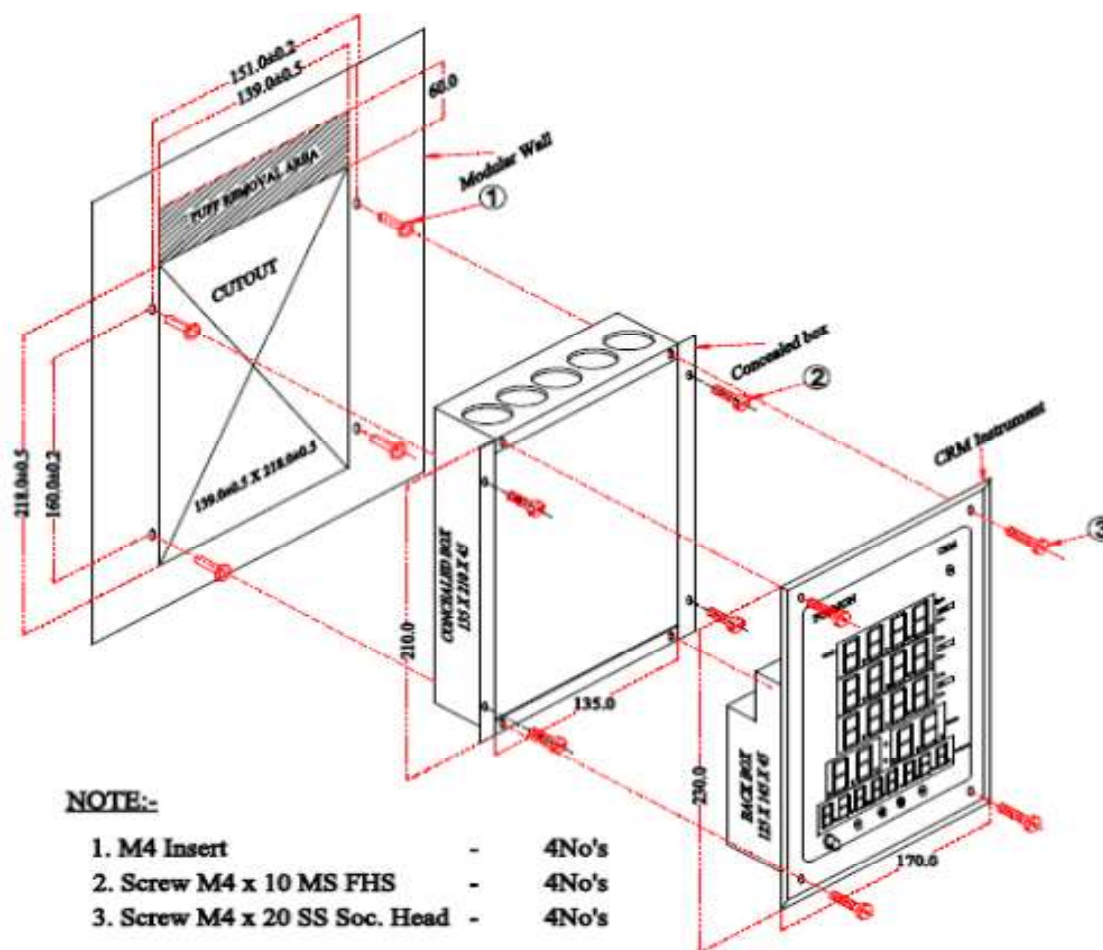
Clean Room Monitor																	
Ordering Information																	
CRM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Model No.	Enclosure Type	RH Input	Temp Input	DP Input	Clock	DP Range	Digital Inputs	Display type	Inbuilt Memory	Communication	Analog O/P	Buzzer	Alarm ACK	Potential Free contact	Power Supply	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- 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.YYY	2- ±500 Pa	2- Dual door Feedback (24V DI-2 No's)	3- 0.8" LED			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:

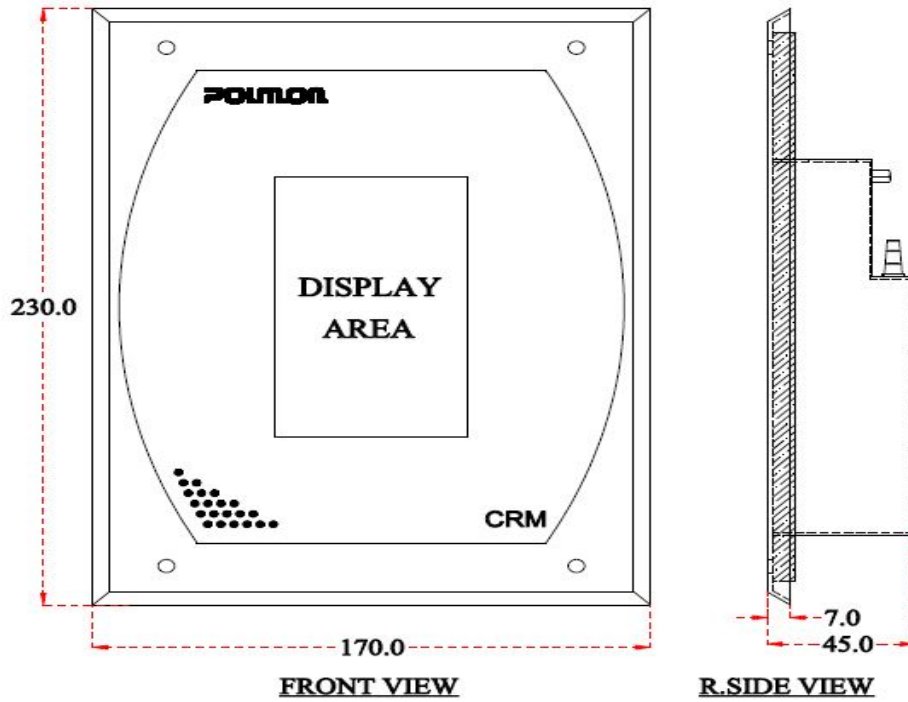
- D1 - Display1, D2 - Display2, D3 - Display3, R - RH, T - Temp, D - DP, X - No Display, N - Specify the display sequence if it is not in ordering information.
- # Specify Analog input range for 4-20mA/ 0-10VDC
- #For Power Supply-2(POE), Communication-4 (MODBUS RTU) is not possible



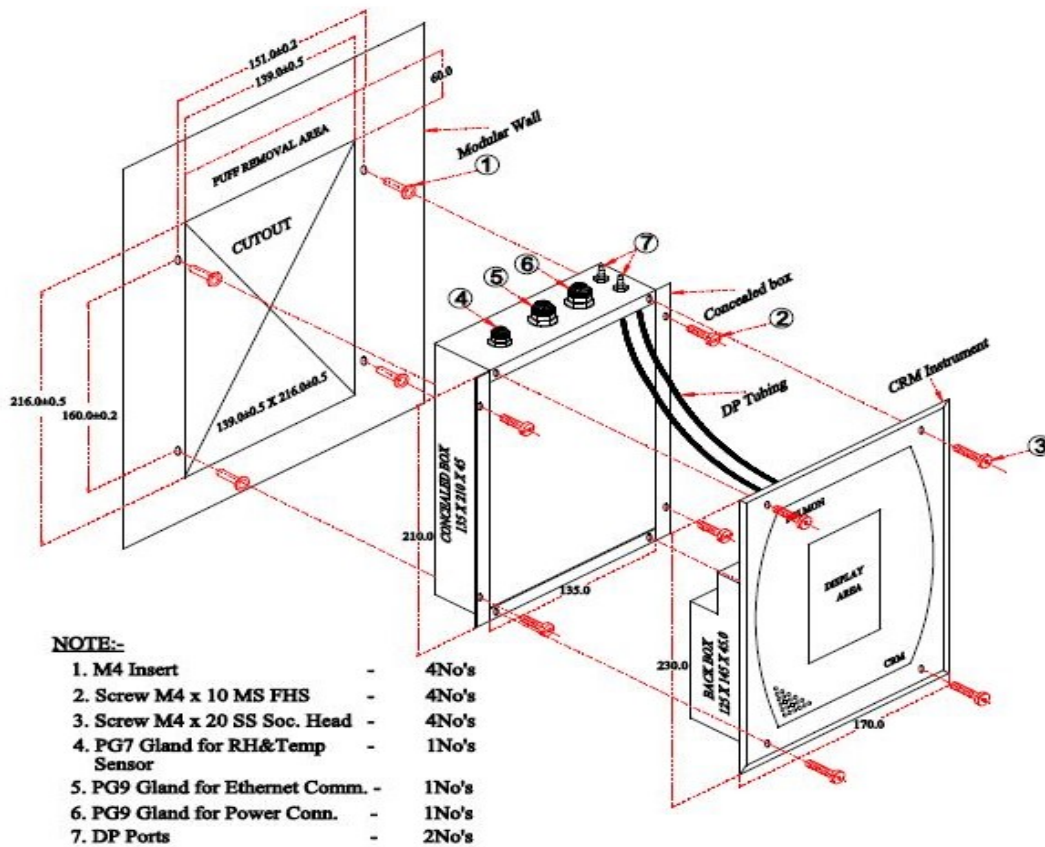
Mounting Drawing



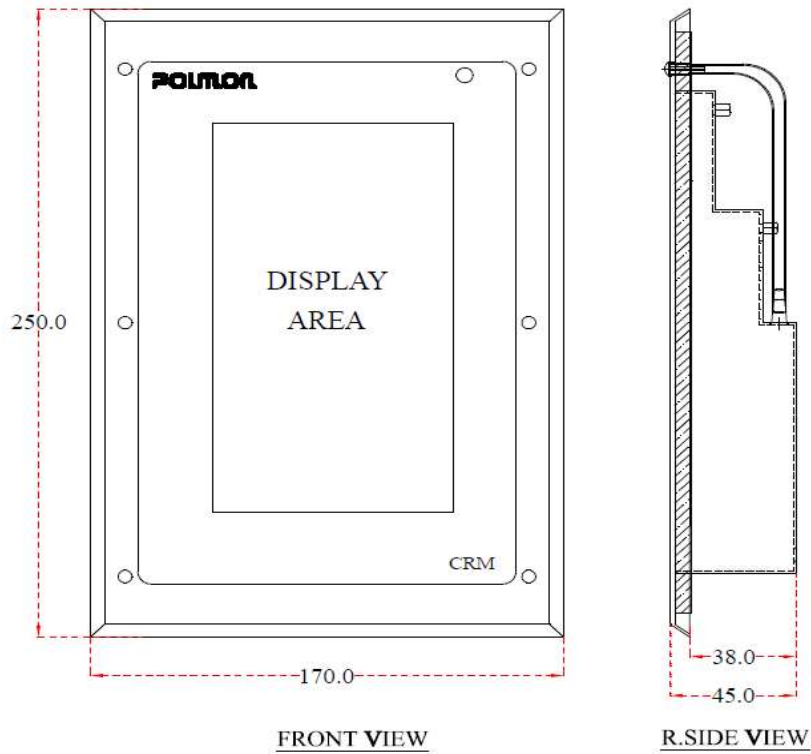
Non Flame Proof



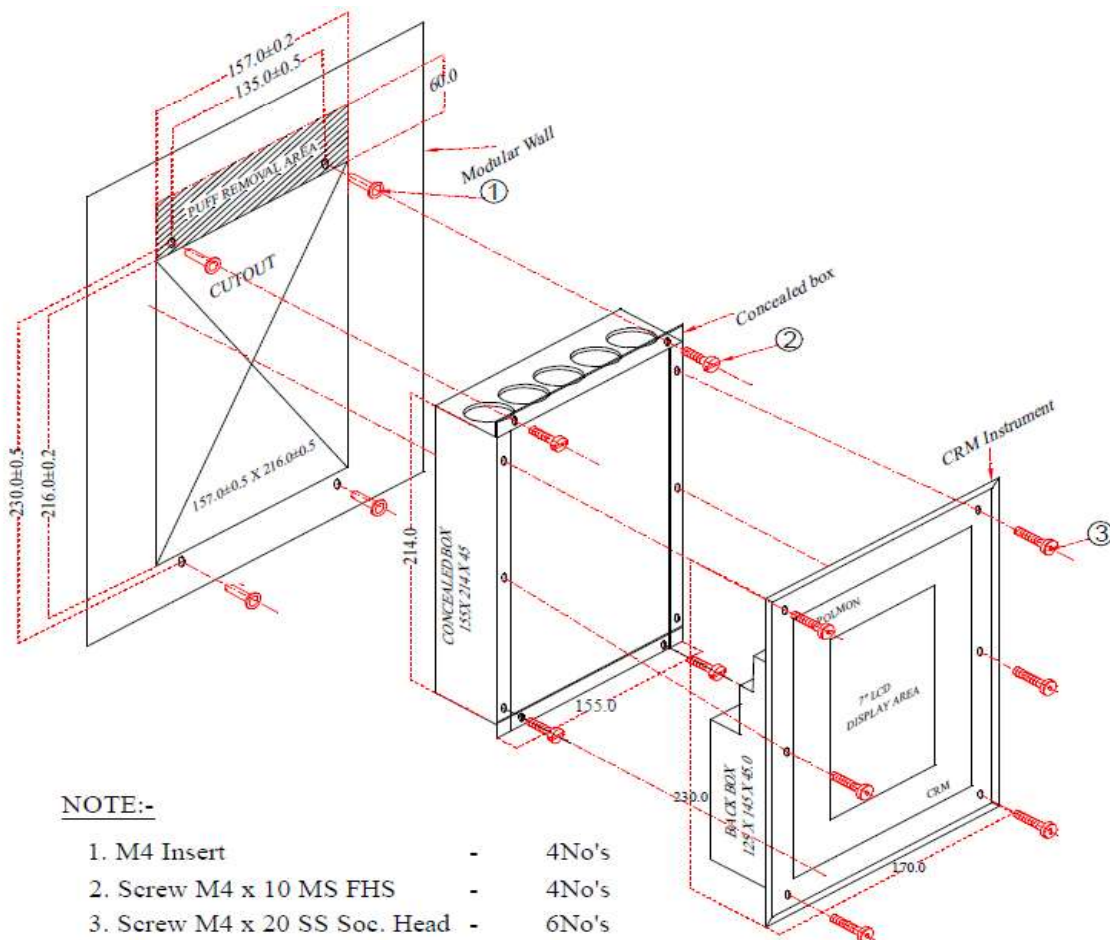
Mounting Drawing

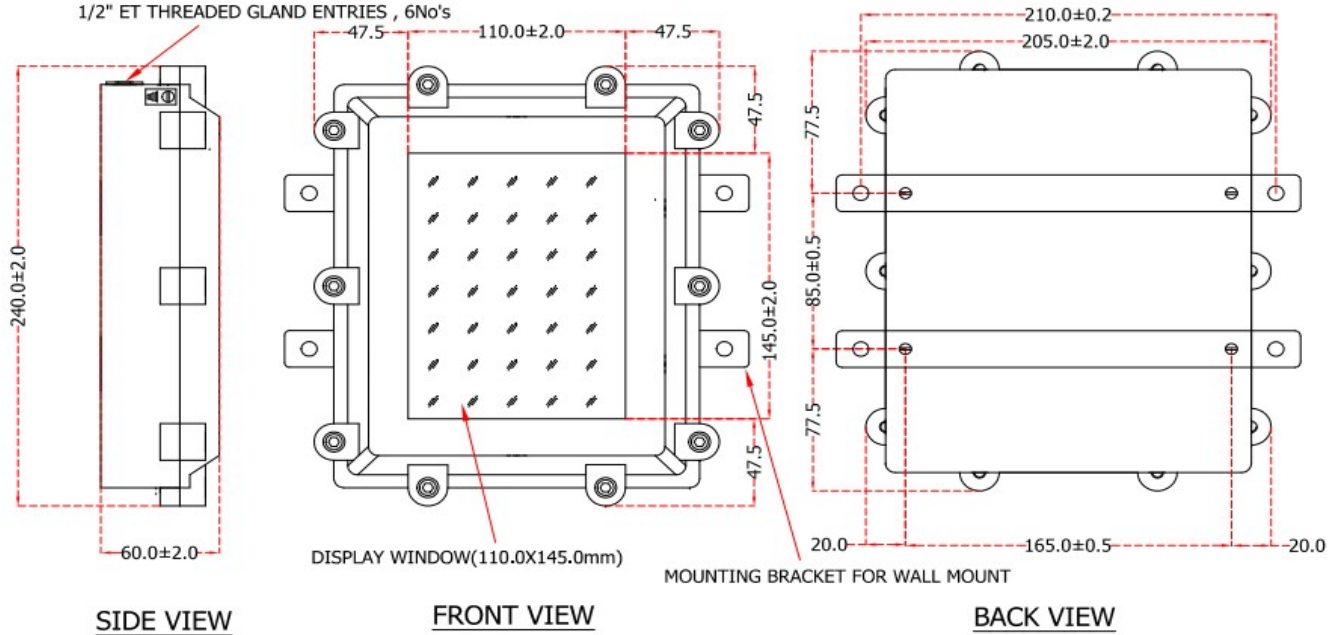


Non Flame Proof



Mounting Drawing





Mounting Drawing

