

ROOM PROCESS MONITOR

NFLP

4.3" LCD

LED



RHT76

FLP

4.3" LCD

LED



"RHT76" is specially designed for Clean rooms to meet the requirement of Measurement, Display Relative Humidity, Temperature and Differential Pressure for meeting the Regulatory requirements in API's & Formulations with Display of Time (HH:MM). It support MODBUS RTU / Ethernet TCP/IP / Ethernet TCP/IP DNP3 / Ethernet TCP/IP+FTP for data logging solution.

Features

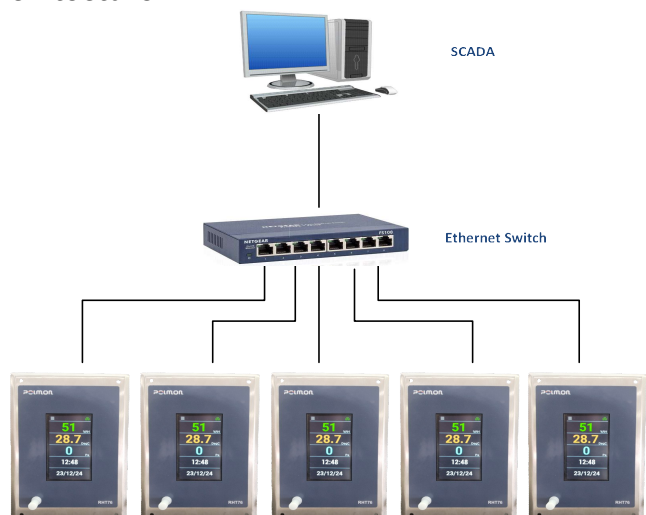
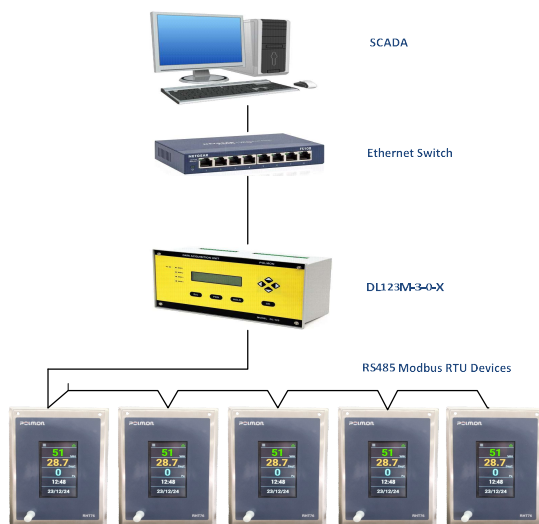
- 4.3" TFT 480x272 Color LCD
- 1/2/3 Channel with Clock (for Hrs& Mins in 24 Hour Mode) Display with 0.8" Seven Segment Red LED Display
- Wide range of Input Options for Remote Tx interface /Inbuilt Sensor
- Dual and triple Inbuilt DP sensors Option with wide sensor ranges
- Min and Max Value Monitoring
- Time Synchronization with PLC/SCADA /DCS through RS-485/Ethernet communication
- Programmable Set points for each parameter (HI/LO) for Visual and LED and Audio Annunciation
- User configurable (enable/disable) Inbuilt Buzzer to provide audible Process value violation
- Option for Buzzer Acknowledgement and Snoozing
- Process Value violation display indication
- Password protected calibration & other programming modes
- Software Calibration & Ranging through soft touch tactile keypad
- User configurable (enable/disable) Inbuilt Relay (for Process Value) (1- NO, NC)
- AHU ON/OFF, Trip Status
- Dual door feedback
- Relay Output with Programmable Acknowledgement and Snoozing
- RS-485 MODBUS RTU Communication with Maximum of 31 devices
- Ethernet MODBUS TCP/IP+FTP Communication
- DNP3 Over Ethernet TCP/IP

- Optional 4-20mA O/P for single channel
- Stand-alone mode with inbuilt clock in network failure condition
- Clean Room compatible Concealed Enclosure (Depth 45 mm)

Applications

- Environmental Monitoring for Clean Rooms with Synchronized Clock
- Data logging

Network Architecture



Specifications

Technical		
	Inbuilt Sensor	External Sensor
Model No	RHT76-R (Non Flame Proof) / RHT76-F (Flame Proof)	
No. of channels	1/2/3 with Time (for Hrs & Min in 24 Hour mode)	
Display	CH1: 3 digit 0.8" seven segment (Red), Red LED with Hi and Lo LED Indication	
	CH2: 3 digit 0.8" seven segment (Red), Red LED with Hi and Lo LED Indication	
	CH3: 3 digit 0.8" seven segment (Red), Red LED with Hi and Lo LED Indication	
	CH4 (Time) : 0.8" seven segment LED Display (Red) (For Hrs & Min)	
	4.3" TFT Color LCD Display+ Touch Viewing Display Size: 70.7 x 38.8mm	
Display Screens	Any Combination of RH,TEMP,DP,Time& Date Or Dual & Triple DP with Time & Date Display Configurations also Available	
Units	Pa , mmWC	
Input Type	RH, Temperature & DP	mA :4-20mA, Voltage : 0-1/0-5/0-10V (Hardware configurable)
Measurement Range	DP : ±101mmWC / ±1000 Pascal, : ±125 Pascal / ±12.5mmWC :±0 to 3500 Pascal / 356.9mmWC	
	RH : 0 to 100%RH, Temp : -40 to 60.0°C	
Input Accuracy	DP: Range ±125 Pa/ ± 12.5mmWC: ±1.25% of Reading ± 2 counts : Range ±1000 Pa/ ± 100.0mmWC: ±1.5% of Reading ± 3 counts : Range +3500 Pa/ +356.9mmWC: ±1% of Reading ± 3 counts RH: ±2% for the range 10 to 90% and ±4% for remaining Temperature: ±0.5°C for the range 0.0 to 40.0°C and ±1.0°C for Remaining	0.15% of FSR ±1Count
Resolution	DP: 0.1 mmWC / 1 Pa RH: 1% Temp: 0.1°C	Programmable
Response time	DP: 1second RH & Temp: Typically 12 seconds	1 Sec
Output	Default: - Relay (1 - NO, NC) Output 1: - Communication (RS-485 MODBUS RTU / Ethernet MODBUS TCP/IP / MODBUS TCP/IP+FTP / Ethernet DNP3) Output 2: - Current O/P (4-20mA@500 Ω load, Software Selectable for a Single Channel) (Optional)	
Memory	Internal memory storage for 5,24,032 records over 363 days with a 1min logging interval.	
Output Accuracy	± 0.05 mA	
Digital Inputs	2 (AHU ON/OFF, Trip OR Dual Door status)	
Clock Accuracy	Depends on PLC/SCADA/DCS time, ±2 minutes/Year (Stand alone mode)	
Synchronization	Depends upon PLC/SCADA/DCS/SENTP	
I/P Impedance	-	mA : 100 Ω., Voltage: > 1MΩ
Buzzer	In built Buzzer provided to beep in set values violated condition with user configurable Snooze option	
Keypad	Tactile Keys for NFLP, Touch Keys for LCD & Magnetic Keys for FLP	
Calibration	Software (Through Keypad)	

Power Supply	
Power supply	20-36Volt AC/DC, 300mA
	POE(48V,15Watt)

Physical	
	RHT76-R (Non Flame Proof)
Enclosure	SS316 Face plate with Flush mount MS back box
Dimensions (LxWxD)	155X230X45cm
Mounting	Brick Wall, Modular Wall and On Wall (Order Optional Accessories)
Terminals	2.5 Sq.mm Screw Terminal
	RHT76-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

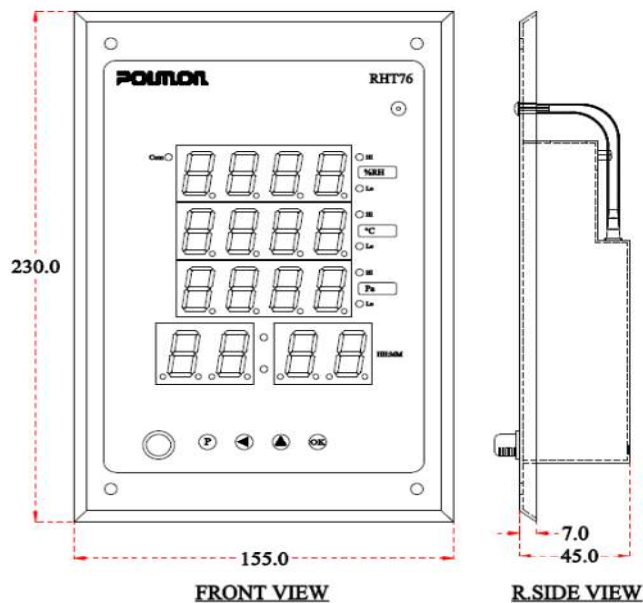
Ordering Information for RHT76												
RHT76	X	X	X	X	X	X	X	X	X	X	X	X
Model No	Enclosure type	Display	output1	Output2	Power	Time	Date	*** D1, D2, D3 Display Parameter Selection	* Sensor Range	Datalogging	Display	SS Face Plate Type
RHT76	R – NFLP	1 – DP (Inbuilt Sensor)	#1 – RS485	1 – N0	1 – 24V AC/DC	X – No	X – No	## X – Standard	X – NA	‘ ‘ No Datalogging	‘ ‘ 0.8” LED	‘ ‘ 7mm Bend
	F – FLP	2 – Temp (Inbuilt Sensor)	2 – Ethernet	###2 – 4-20mA (for Single I/P)	#2 – POE	1 – Yes	1 – Yes	##N – Non Standard	‘ ‘ – ±100.0mmWC/ ±1000 Pascal	1- Proprietary	1 - 4.3” TFT	1 – 12mm Bend
		3 – RH + Temp (Inbuilt Sensor)	3 – RS485 + AHU Status						2 – ±12.5mmWC/ ±125Pascal			
		4 – Temp + DP (Inbuilt Sensor)	4 – Ethernet + AHU Status						3- +2500/3000/ 3500 Pascal			
		5 – RH+Temp+DP (Inbuilt Sensor)	5 – Ethernet + Door Status									
		**6 – DP (Remote Tx Input)										
		**7 – Temp (Remote Tx Input)										
		**8 – RH+ Temp (Remote Tx Input)										
		**9 – Temp + DP (Remote Tx Input)										
		**10 – RH + Temp + DP (Remote Tx Input)										
		**11 – Temp (Remote Tx Input) + DP (Inbuilt Sensor)										
		**12 – RH + Temp (Remote Tx Input) + DP (Inbuilt Sensor)										
		**13 – RH+ Temp (Extended)										
		**14 – RH+ Temp + (Dp Inbuilt) (Extended)										
		**15 – RH+ Temp+ DP (Remote Tx Input)										
		**16 – Dual Inbuilt DP										
		**17–Triple Inbuilt DP										

Note:

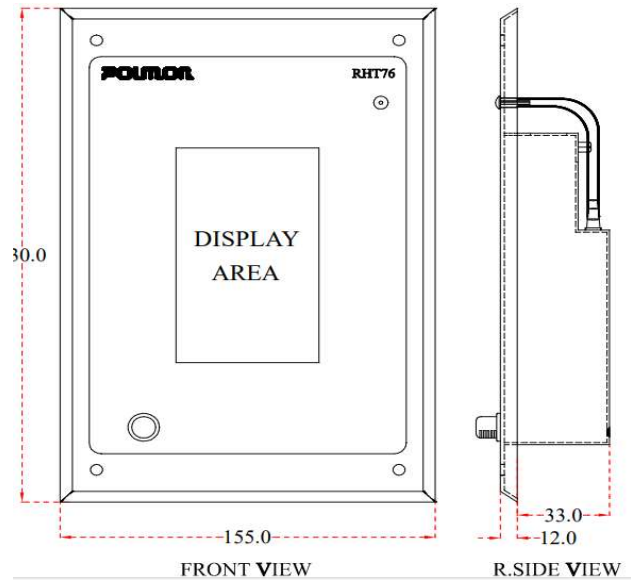
- * For Datalogging proprietary PISCADA is required.
- *-Specify units Pascal / mmWC.
- * NA=Not Applicable D1 - Display1, D2 - Display2, D3 - Display3, R - RH, T - Temp, D - DP, X – No Display.
- #Power -2(POE) is Selected, Output1: Option 1-RS485 is not possible.
- ## X – Standard – R,T,D / R,X,T / X,D,X / X,T,X / X,T,D##N – Non Standard - Need to be confirmed by customer to select overlay model while ordering.
- ###Output2-2(4-20mA) to be specified for RH/Temp/DP.
- New Variants to be confirmed from R&D.

Non Flame Proof

LED

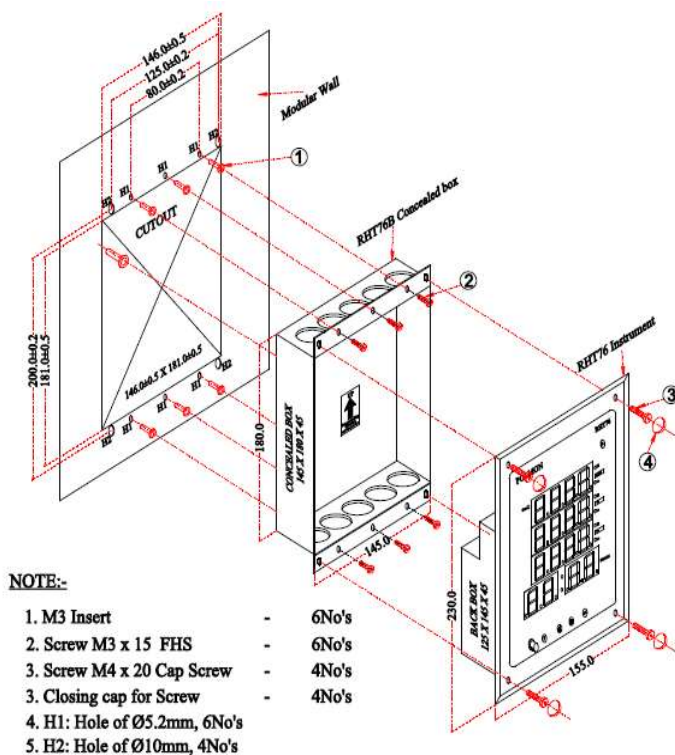


4.3" LCD

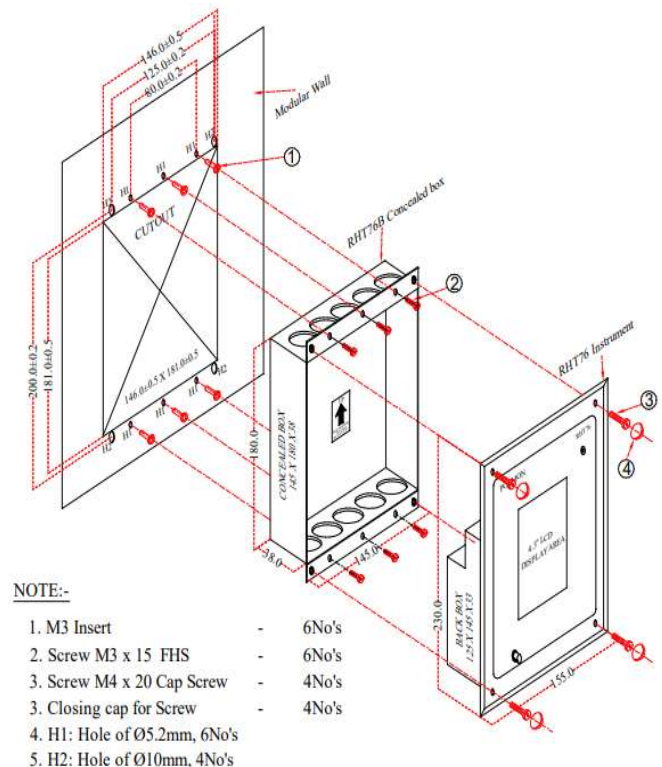


Mounting Drawing

LED

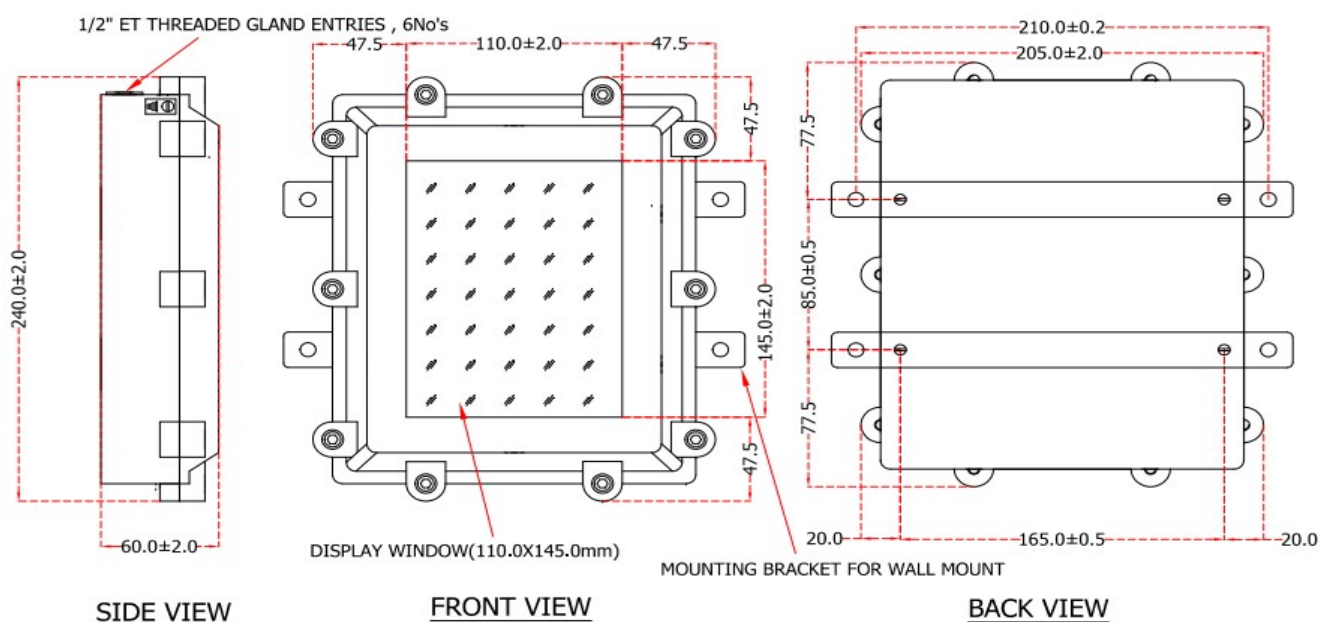


4.3" LCD



Flame Proof GAD

CRM/RHT76 FLP GAD AND WALL MOUNTING DETAILS DRAWING



Mounting Drawing

Flame Proof Modular wall installation

