

THE CLEAN ROOM MONITOR

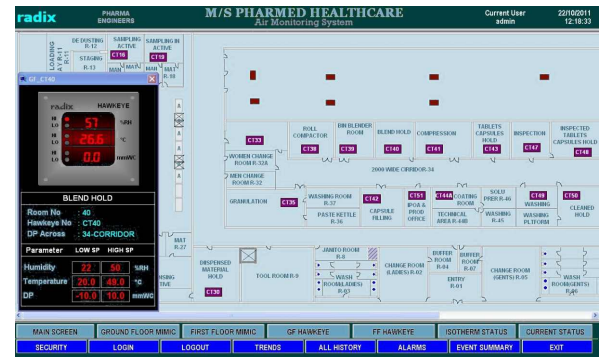
RH+T/DP INDICATOR with RTC



FEATURES

- Microcontroller based
- RH, Temperature & DP measurement
- 4-row, 0.56" (14.2 mm), large, bright LED display
- Software programmable channel ranges, units & input types
- User programmable for 1,2 or 3 channel measurement
- 3 programmable Alarms with visual annunciation
- 3 programmable Alarms with open collector outputs to operate external relays
- Real Time Clock with battery back-up
- Synchronised with server clock via RS485
- Software calibration for all 3 channels
- Calibration history / schedule for validation
- RS485/MODBUS RTU multidrop communication for PLC, SCADA, etc.
- 24 VDC or 85~265 VAC SMPS supply
- Powerful, user-friendly SCADA available
- FDA 21CFR Part11 compliant SCADA version also
- Advanced digital RH+T sensor technology

SCADA SOFTWARE



- SCADA Software - Eclipse E3
- Flexible trend facility - current and historical
 - Alarm function
 - Allows read (acquire data) & write (program setpoint, etc) operations
 - Supports thousands of tags
 - Supports upto 32 or more instruments
 - Capable of storing data upto 10 years
 - Default screen selection

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

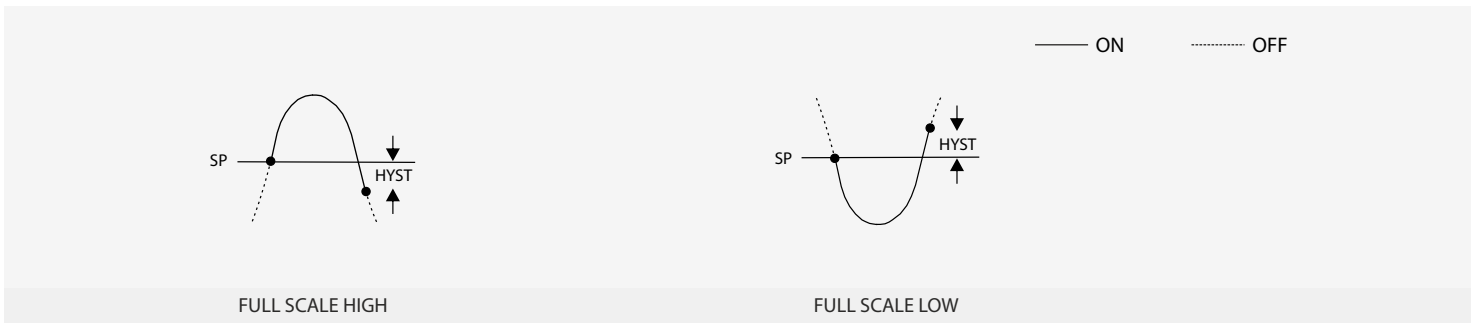
INPUTS	
No. of inputs	3 (RH, T, DP)
Input RH	a) Integral, radix RH+T sensor b) 0-1 V DC c) 0-10 V DC d) 4~20 mA e) RH signal from Radix RH+T sensor (SHT20, SHT30, etc)
Input T	a) Integral, radix RH+T sensor b) 0-1 V DC c) 0-10 V DC d) 4~20 mA e) RH signal from Radix RH+T sensor (SHT20, SHT30, etc)
Input DP	a) 0-1 V DC b) 0-10 V DC c) 4~20 mA d) Integral Radix DP sensor
Transmitter supply (V _{TX})	20 V nominal, 100 mA max
Range	%RH 0~100% RH Temperature -19.9 ~ 90.0 °C (user selectable) DP -199 ~ 900Pa, -19.9 ~ 90.0mmWC (user selectable)
Accuracy	
For Integral Sensors	%RH ± 2% RH Temperature ± 0.3 °C DP ± 1.5% of reading ± 5 Pa, ± 1.5% of reading ± 0.5 mmWC
For Remote Input	%RH ± 1% RH Temperature ± 0.25% of span (min ±0.2 °C) DP ± 0.25% of span (min ±0.3 mmWC)
RTC ACCURACY	
Stand-alone mode	±5 seconds per day
Slave with SCADA as Master	Same as Server RTC ±10 sec
INDICATION	
% RH	Window 1, 3 digit, 7 segment 0.56" (14.2 mm) red LED display
Temperature	Window 2, 3 digit, 7 segment 0.56" (14.2 mm) red LED display
Differential Pressure	Window 3, 3 digit, 7 segment 0.56" (14.2 mm) red LED display
Real Time Clock	Window 4, 4 digit, 7 segment 0.56" (14.2 mm) red LED display
Status indication	LEDs for visual alarms, RS485 signals
OUTPUTS	
No. of open collector outputs	3
No. of visual alarms	6
COMMUNICATION	
Port	RS485, isolated
Baud rate	9600 bps
Protocol	Modbus RTU
Slave ID	User programmable, 1~247
Minimum polling interval	200 milliseconds
Parameters	
Process variables	Read only
Setpoints	Read & write from the host computer
Alarm status	Read only
Input bias	Read & write from the host computer
RTC Synchronization	Read & write from the host computer

CLOCK	
Real time clock	Provided
Battery backup	Provided
ENCLOSURE	
Construction	Type A Type B Type C Type D
MOC	Faceplate Body
Dimensions (in mm)	Type A, B, C Type D
Mounting	Modular panel Brick wall
Cutout (in mm)	
PROGRAMMABLE PARAMETERS	
Setpoint	% RH 0 ~ 100 Temperature -19.9 ~ 90.0 °C DP -19.9 ~ 90.0 mmWC -199 ~ 900 Pa
Resolution	1 for RH 0.1 for T 0.1 for DP unit mmWC 1 for DP unit Pa
Digital filter	A (minimum) ~ F (maximum)
Hysteresis	User selectable
Alarm logic (Fig 1)	a. Full scale high b. Full scale low
Alarm type	Self reset
Setpoint lock	ON, OFF
OTHER	
Programming	Through 3 tactile keys
Supply voltage	a) 85~265 V AC, 50/60 Hz b) 20~30 V DC
Power consumption	4 watts maximum
Operating ambient temperature	0~50 °C
Relative humidity	Below 90%, non condensing

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FIG 1 ALARM LOGIC



ORDERING INFORMATION

2397 -

A B C D E F G H I J

Product code	A	RH+T Sensing Position	B	DP Sensing Position	C	RH Input	D	Temperature Input	E	DP Input	F	DP Unit	G	Supply voltage	H	Communication	I	Buzzer Output	J	Alarm Acknowledge Key	
2397	1	None	1	None	1	None	1	None	1	None	1	None	1	85-265 VAC	1	Not provided	1	Not provided	1	Not provided	
	2	Integral Sensor front	2	Integral Sensor front	2	Integral RH+T sensor	2	Integral RH+T sensor	2	Integral DP sensor	2	mmWC	2	20-30 VDC	2	RS485, Isolated	2	Provided	2	Provided	
	3	Integral Sensor rear	3	Integral Sensor rear	3	0-10 VDC	3	0-10 VDC	3	0-10 VDC	3	Pa									
	4	Remote Transmitter	4	Remote Transmitter	4	4-20 mA	4	4-20 mA	4	4-20 mA											
	5	Integral Transmitter																			

CAT#427R2/A

ENQUIRIES

Instruments: sales@radix.co.in
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Gauges: gauges@radix.co.in
Automation: automation@radix.co.in
Level: level@radix.co.in

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