

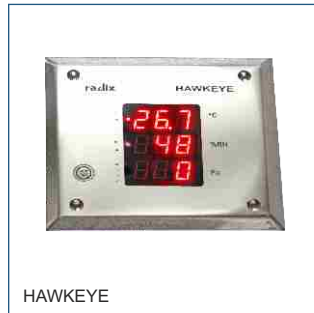
radix®

BMS & HVAC Catalog

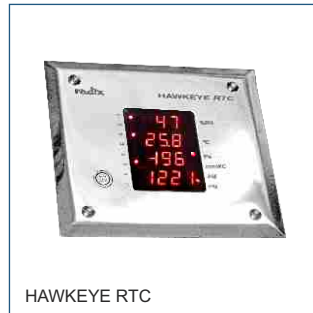


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CLEAN ROOM MONITORS



HAWKEYE



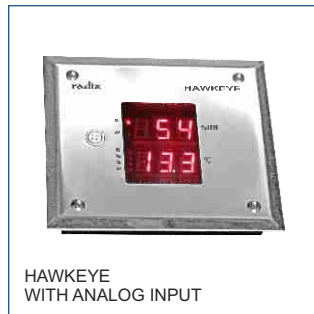
HAWKEYE RTC



HAWKEYE PRO



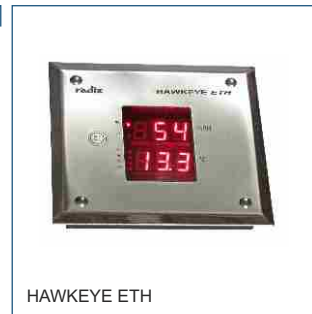
HAWKEYE FLP



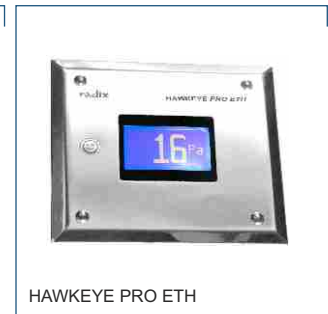
HAWKEYE WITH ANALOG INPUT



HAWKEYE RTC WITH ANALOG OUTPUT



HAWKEYE ETH



HAWKEYE PRO ETH



T-SYNC



HAWKEYE PRO FLP



HAWKEYE MINI RTC



HAWKEYE MINI WITH RH, T INTEGRAL

Model	Input	Digital Input	Buzzer Output	Analog Output	Supply	Display Digits	Communication
HAWKEYE	3 x Integral, Remote	No	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3+3 (0.8")	RS485 / MODBUS RTU
HAWKEYE RTC	3 x Integral, Remote	No	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3+3+4 (0.56")	RS485 / MODBUS RTU
HAWKEYE PRO	3 x Integral, Remote	Potential free AHU Input	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	LCD with backlight	RS485 / MODBUS RTU
HAWKEYE FLP	3 x Remote	No	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3+3 (0.8")	RS485 / MODBUS RTU
HAWKEYE	2 x Integral, Remote	No	Yes	2	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3 (0.8")	RS485 / MODBUS RTU
HAWKEYE RTC	3 x slave	No	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3+3+4 (0.56")	RS485 / MODBUS RTU
HAWKEYE ETH	3 x Remote, Integral RH+T	No	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	3+3+3 (0.8")	MODBUS / TCP & Telnet
HAWKEYE PRO ETH	3 x Integral, Remote	Potential free AHU Input	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	LCD with backlight	MODBUS / TCP & Telnet
T-SYNC	-	No	No	0	85-265 VAC, 50/60 Hz / 20-35 VDC	4+2+6 (0.8"+0.56"+0.39")	RS485 / MODBUS RTU
HAWKEYE PRO FLP	3 x Remote	Potential free AHU Input	Yes	0	85-265 VAC, 50/60 Hz / 20-35 VDC	LCD with backlight	RS485 / MODBUS RTU
HAWKEYE MINI RTC	3 x Remote	Potential free AHU Input	Yes	0	24 VDC	4+4+4+4 (0.45")	RS485 / MODBUS RTU
HAWKEYE MINI	3 x Integral	Potential free AHU Input	Yes	0	24 VDC	4+4+4+4 (0.45")	RS485 / MODBUS RTU

RH+T TRANSMITTERS



Model	Size hxwx d mm	Display Digits	Output	Supply	Degree of Protection	Mounting
SC804	149x140	4+4, LED	2 x 4~20 mA	11.5~32 VDC loop supply	IP66, FLP	Surface
SC805	80x82x85	4+4, LCD	2 x 4~20 mA	4.5~32 VDC loop supply	IP65	Surface / Duct mount
SC806	Surface : 119x119x85 Duct : 107x115	-	2 x 4~20 mA	4.5~32 VDC loop supply	IP66, FLP	Surface / Duct mount
SC807	80x82x85	-	2 x 4~20 mA	4.5~32 VDC loop supply	IP65	Surface / Duct mount
RHT811	80x82x55	4+4, LCD / Without Display	1 / 2 x 0~10 V	18~30 VAC/DC	IP65	Surface / Duct mount
RHT811 (FLP)	Surface without display - 119x119x85 Surface with display - 150x150x104 Duct without display - 107x115	4+4, LCD / Without Display	1 / 2 x 0~10 V	18~30 VAC/DC	IP65, IP66, FLP	Surface / Duct mount
RHT861	80x82x85	4+4, LCD	4 x 4~20 mA	13.5~32 VDC loop supply	IP66	Surface / Duct mount

DP TRANSDUCERS

- **2 x 4-20 mA / 0-10 V outputs**
- Unit : Pa, mmWC, mbar, inWG, inHg, PSI, mmHg
- Software calibration - no trimpots
- Dual 7-segment LCD display (DPT511)
- Zero adjustment with pushbutton switch
- RS485 / MODBUS RTU
- 18-36 VDC or 20-32 VAC
- PC programmable
- Flameproof, IP66
- Surface mount

DP TRANSMITTERS

- **2-wire, 4-20 mA output**
- Units : Pa, mmWC, mbar, inWG, inHg, PSI, mmHg
- High accuracy
- Software calibration - no trimpots
- 12-32 VDC loop supply
- PC programmable
- Zero adjustment with pushbutton switch
- Surface / Duct mount

AIR VELOCITY TRANSMITTERS

- **Standard, 4-20 mA output**
- Units : Pa, mmWC, mbar, inWC, inHG, PSI, mmHG, FPM (Standard feet per minute), MPS (Meter per second), CFM (Standard cubic feet per minute)
- Accuracy $\pm 0.5\%$ of reading ± 2 Pa
- 18-30 VAC or DC
- User programmable voltage or current output
- Input type selection possible via DIP switch
- Flameproof, IP66
- Surface, Duct mount

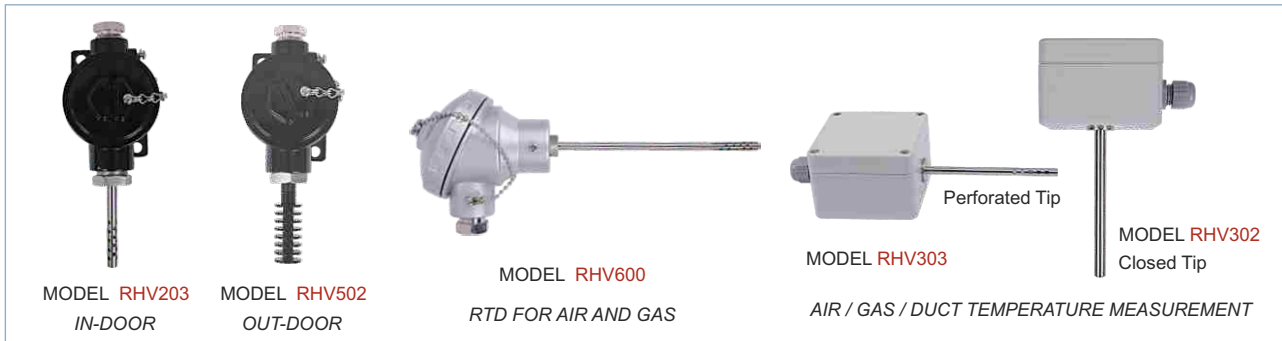
RH+T & DP INDICATORS - BATTERY OPERATED

- **1 year+ battery life**
- High accuracy
- Software calibration - no trimpots
- Dual 7-segment LCD display for RH & T
- Programmable sampling interval, unit, bias, etc
- RTC display
- For modular panel (DPG201, DPG202) FLP (RHT802), Standard (RHT803)

RH+T & DP INDICATORS WITH RS485

- **RS485 / MODBUS RTU**
- Software calibration - no trimpots
- Dual 7-segment LCD display
- PC programmable
- 20-32 VDC supply
- Surface / Duct mount

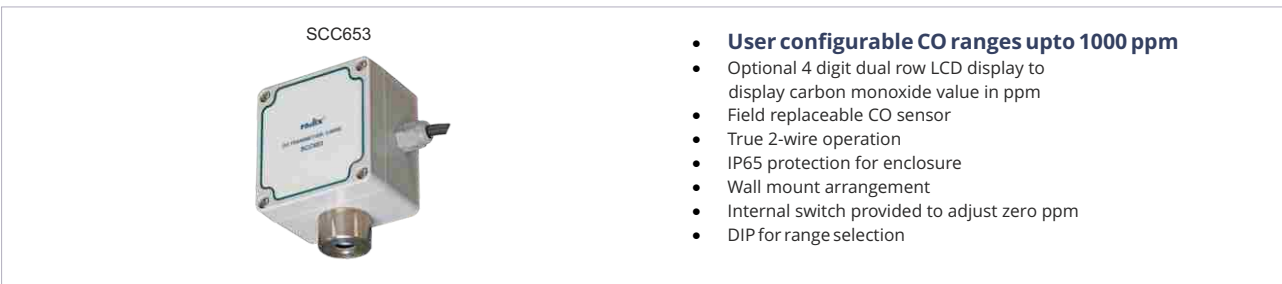
HVAC AND GAS TEMPERATURE MEASUREMENT



RTD FOR HOT AND CHILL WATER



CARBON MONOXIDE TRANSMITTER



HVAC CONTROLLERS

SMART SENSOR

- Input : from smart RH+T sensor
- 2 or 4 setpoints for RH and T
- Accuracy : $\pm 2\%$ RH, ± 0.5 °C
- 2 x isolated 0/4-20 mA or 0-10 V DC retransmission outputs for %RH and T
- RS485 / MODBUS RTU
- User programmable
- 85-265 V AC SMPS or 20-35 V DC supply



HX96A

WET & DRY BULB

- %RH using wet & dry bulb temperature RTD sensors
- Two inputs for T_{DRY} & T_{WET}
- Input type : 4-20 mA/RTD
- 0 / 2 setpoints for %RH / T_{DRY}
- 2 x isolated 0/4-20 mA or 0-10 V DC retransmission outputs for %RH and T
- RS485 / MODBUS RTU
- 24 V DC transmitter supply
- 85-265 V AC or 20-35 V DC supply



RHC301

AHU CONTROLLERS

RH+T INDICATOR

- Input : from smart RH+T sensor
- 0/1/2 setpoints for RH and T
- Accuracy : $\pm 2\%$ RH, $\pm 0.5^\circ\text{C}$
- Isolated 0/4-20 mA or 0-10 V DC retransmission outputs for %RH and T
- User programmable
- 85-265 V AC SMPS or 20-35 V DC supply



HTC96

AHU CONTROLLER

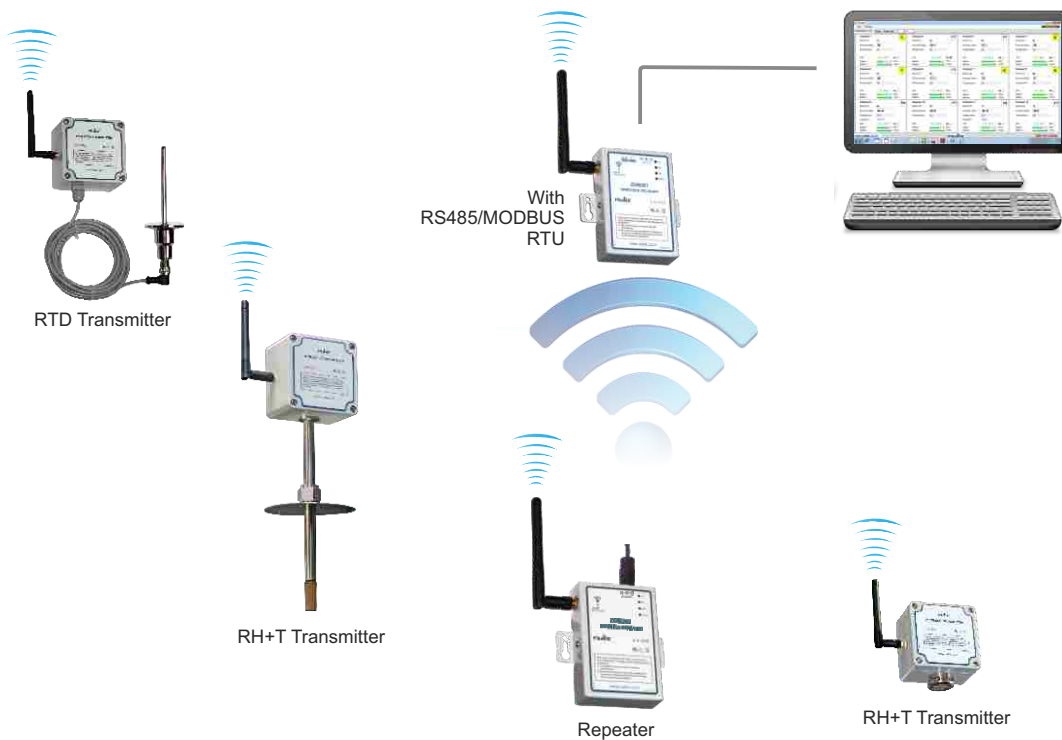
- Dual P, PI or PID loops for RH & T
- Maximum 6 digital inputs
- 2 analog outputs/7 relays maximum
- Isolated 2x4-20 mA or 0-10 V DC control / retransmission output
- IP66 / Nema 4x
- Low Depth - 60mm
- RS485 / MODBUS RTU



NEX205

WIRELESS TRANSMITTER-RECEIVER SYSTEMS

%RH, RTD, THERMOCOUPLE, LEVEL



- Transmitter (Surface and Head Designs)
 - RTD : Pt100
 - Thermocouple : J, K, T, E, R, S, B, N
 - Level : % RH
- Range : Up to 120 m outdoor line of sight
Up to 40 m indoor / urban

- Repeater to extend range
- Receiver with USB port
- Receiver with RS485 converter
- Free utility software ZGU201

- Full-featured SCADA option
- Battery life : Minimum 1 year
- Transmit interval : 2 to 3600 seconds
- RF strength mapping services optional

BMS, HVAC AUTOMATION

Radix provides integrated end-to-end solutions for Pharma & Commercial BMS and HVAC systems.

Radix manufacturers sensors, transmitters, control panels, wireless systems, level products, etc. Along with Dwyer products, complete Automation Systems for BMS and HVAC are available. These include AHU control, Online+Offline Datalogging, Reactor Automation and more. With Automation Engineers stationed in our regional offices, Radix is equipped to handle large projects anywhere in India.

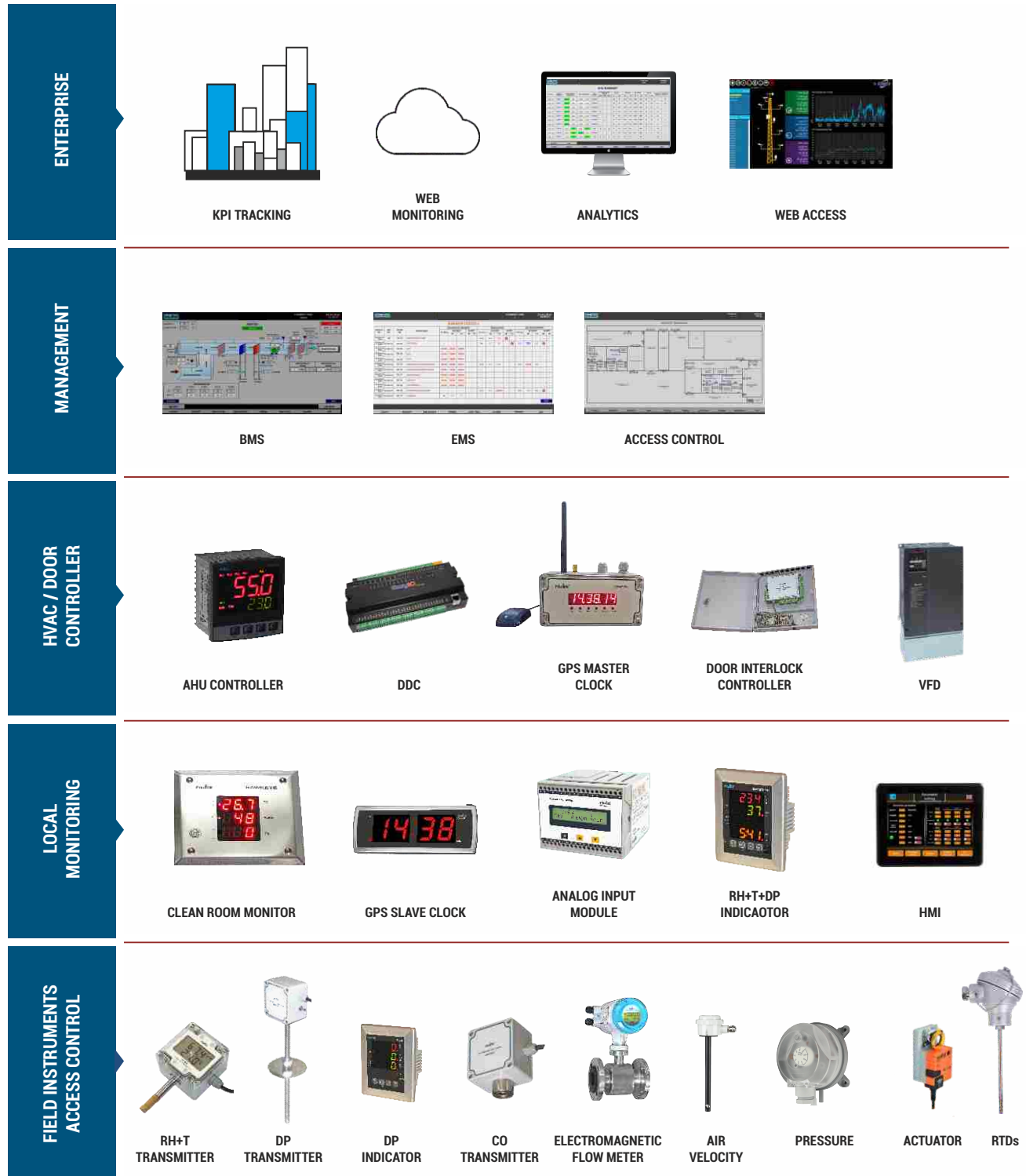
The screenshot displays the 'AHU Controlling Unit' interface. At the top, it shows 'AHU - 1' and the date '26/02/2019 15:00:27'. Below this is a 3D schematic of the AHU system, including components like BIBO FILTER, PRE FILTER, FINE FILTER, and various blowers (SA BLOWER, RA BLOWER). The interface also features several control panels: 'CONTROL' with 'SA FAN COMMAND' and 'TEMP SETPOINT CHWV'; 'VFD-SUPPLY BLOWER' and 'VFD-RETURN BLOWER' both showing 'VFD Offline'; and 'DH PARAMETER' showing 'DH Offline'. At the bottom, there is an alarm log with columns for Address, Time, Location, and Alarm Description.

radix		Current User admin		29/08/2015 14:32:07															
AHU SUMMARY																			
AHU No.	LOCAL/REMOTE	AUTO/MANUAL SELECTION		AHU COMMAND		AHU STATUS	FILTER CHOKE STATUS			RH (%)		TEMP (°C)		VEL (FPM)		VFD (Hz)		CHW Valve Mod (%)	HW Valve Mod (%)
		AUTO	MAN	START	STOP		PRE	FINE	HEPA	PV	SP	PV	SP	PV	SP	PV	SP		
AHU - 01	REMOTE	AUTO	MAN	START	STOP	RUNNING				58	60	22.5	23.0	2405	2400	24	45	0	25
AHU - 02	REMOTE	AUTO	MAN	START	STOP	RUNNING				64	60	22.1	23.0	2319	2400	37	45	12	45
AHU - 03	REMOTE	AUTO	MAN	START	STOP	RUNNING				55	60	23.4	23.0	4128	4000	22	45	20	0
AHU - 04	REMOTE	AUTO	MAN	START	STOP	RUNNING				53	60	23.9	23.0	4009	4000	28	45	45	0
AHU - 05	REMOTE	AUTO	MAN	START	STOP	RUNNING				52	60	23.2	22.0	6023	6000	26	45	60	0
AHU - 06	REMOTE	AUTO	MAN	START	STOP	RUNNING				61	60	24.1	24.0	2312	2300	31	45	5	0
AHU - 07	REMOTE	AUTO	MAN	START	STOP	RUNNING				63	60	22.2	22.0	2789	2800	28	45	10	0
AHU - 08	REMOTE	AUTO	MAN	START	STOP	STOP				70	60	27.5	23.0	7	2500	0	0	100	0
AHU - 09	REMOTE	AUTO	MAN	START	STOP	RUNNING				61	60	23.6	23.0	9417	9500	33	33	25	0
AHU - 10	REMOTE	AUTO	MAN	START	STOP	STOP				72	60	29.7	23.0	5	3000	0	0	100	0

REPORTS	BMS
LOGOUT	SECURITY
STATUS	SETPOINT
TRENDS	EVENT SUMMARY
ALARMS	EXIT

BMS, HVAC AUTOMATION

BMS SYSTEM ARCHITECTURE



SCADA

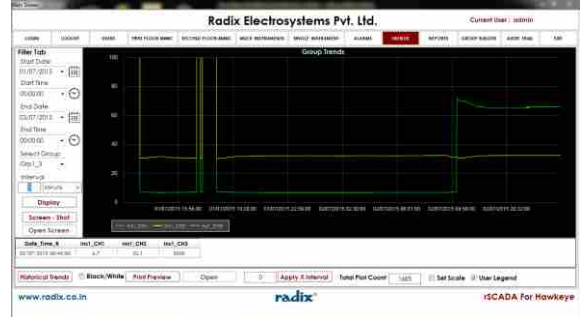
HIGHLIGHTS

- User management module: Create / delete / assign the rights for different users
- Standard screens for individual / multiple instrument display (Real-time data)
- Flexible trend facility: Real-time and historical and group-wise.
- Set point writes module with security features
- Alarm module: Real-time and historical alarm with data logging
- No limitations of tags
- Unlimited data storage. (Month wise per minute data)
- 21CFR PART11 compatible
- Audit trails
- Reports in Excel as well as PDF format. (Both non editable)
- Group Builder Module: To create group as per end user requirement
The same will be reflected in group history trends and group report option
- Specially design analytical reporting option with our experience developer
- Flexible to customize as per end user requirement
- rSCADA Standard version is ready to use solution just by installing the setups
- Ready to configure and use SMS Module
- Client Server Architecture

ADD ON FEATURES

- Multiple Remote Viewers with same functionality as Server
- Mimics
- HMI as Redundant Data Logger for Zero Data Loss (RDL/ZDL)
- SMS Module
- Expandable to any number of instruments / tags
- Connectivity to Third Party Devices though Microsoft ODBC Connectivity
- Connectivity to SAP or Any Third Part ERP
- Customized Reports
- Report Availability over Browser – rSCADA does not have to be installed for this
- Customization as per client requirements

TRENDS



GROUP BUILDER

ALARMS

Date	Time	Description	Room Name	Tag Number	Channel Desc	FV
01-07-2018	11:00:00	High Alarm	4142 Filtrng & Heating	Tag1	4141 CH21	79
01-07-2018	11:00:00	High Alarm	4142 Filtrng & Heating	Tag2	4141 CH21	79
01-07-2018	11:00:00	High Alarm	4142 Filtrng & Heating	Tag3	4141 CH21	79
01-07-2018	11:00:00	High Alarm	4142 Filtrng & Heating	Tag4	4141 CH21	79
01-07-2018	11:00:00	High Alarm	4142 Filtrng & Heating	Tag5	4141 CH21	79

AUDIT TRAIL

Date	Time	Description	Username
01-07-2018	11:00:00	RF Modified for Room4925	...
01-07-2018	11:00:00	RF Modified for Room4925	...
01-07-2018	11:00:00	RF Modified for Room4925	...
01-07-2018	11:00:00	RF Modified for Room4925	...
01-07-2018	11:00:00	RF Modified for Room4925	...



GLOBAL PARTNERS



Duct Air Temperature (Return and Supply)	Immersion Temperature Sensor	Room Temperature Sensor	Duct Humidity and Temperature Sensor
Room Humidity and Temperature Sensor	Dew Point Sensor	Outside Humidity and Temperature	Pressure
Air velocity	CO/CO ₂	Miscellaneous	Network



		Pressure	
Air Velocity	CO/CO ₂	Humidity	Averaging Temperature Sensors
			Duct & Immersion Building Automation Temperature Sensors

OTHER PRODUCTS

DOOR INTERLOCK CONTROLLER

DXC241 2-4 DOOR WITH RS485
DXC281 2-8 DOOR WITH ETHERNET
DXC341 2-4 DOOR FOR OEMs
DXC421 PASS BOX CONTROLLER WITH RS485

ELECTROMAGNETIC FLOW METER

FLANGE TYPE

SANDWICH TYPE

TRI-CLOVER TYPE

- Maximum temperature : 160 °C
- Maximum pressure : 20 Kg/cm²
- Flow velocity : 1 to 10 m³/s
- Communication - MODBUS, HART (optional)
- Rubber / PTFE / PFA lining
- Upto 20 μs conductivity

GPS CLOCKS

HH:MM:SS

HH:MM

Wired clock

Flameproof

- Time format : 4 digit (HH:MM), 6 digit (HH:MM:SS)
- Display colour : Red, White, Green
- Power supply : 85-265 VAC / 50 HZ
- Operating temperature : 0-50 °C
- Storage temperature : 0-60 °C
- Relative humidity : Below 90%, non-condensing

LEVEL PRODUCTS

FLOAT GUIDED LEVEL TRANSMITTER

Range : Upto 150 °C and 10 kg/cm²
Liquid density : >0.7 g/cm³

DISPLACER SWITCH

Range : Upto 300 °C and 100 kg/cm²

SUBMERSIBLE LEVEL TRANSMITTER
(INTERNAL MOUNTING)

Slender design for narrow openings
Maximum temperature : 70 °C

ULTRASONIC
LEVEL TRANSMITTER

For Liquids and solids
Range : Upto 70 °C and 1 kg/cm²
LCD Display

About Radix



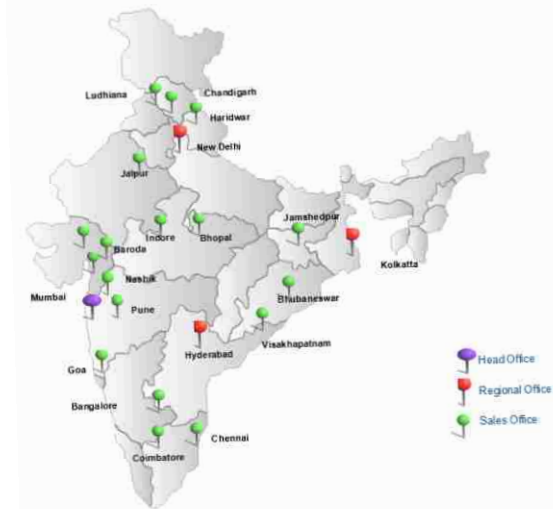
- Radix is a 40 year old company manufacturing a wide range of instrumentation and automation products.
- It has a strong R&D capability with over 90 engineers

Automation Department



- The Automation Department is located in Navi Mumbai and has over 20 engineers. Radix has implemented a large number of automation projects across India. Automation engineers are stationed at regional offices also.

All-India Sales and Service Network



- We have a large team of over 80 engineers and support staff in offices across India

In-house Control Panel Manufacturing



- Our in-house Control Panel department manufactures high-quality panels for all kinds of automation and other projects

ENQUIRIES

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