

Smart-I Electronics Systems Pvt. Ltd.

smartRDU-EM

Instruction and Operational
Manual

Model No. SDC-SRSR-EM001

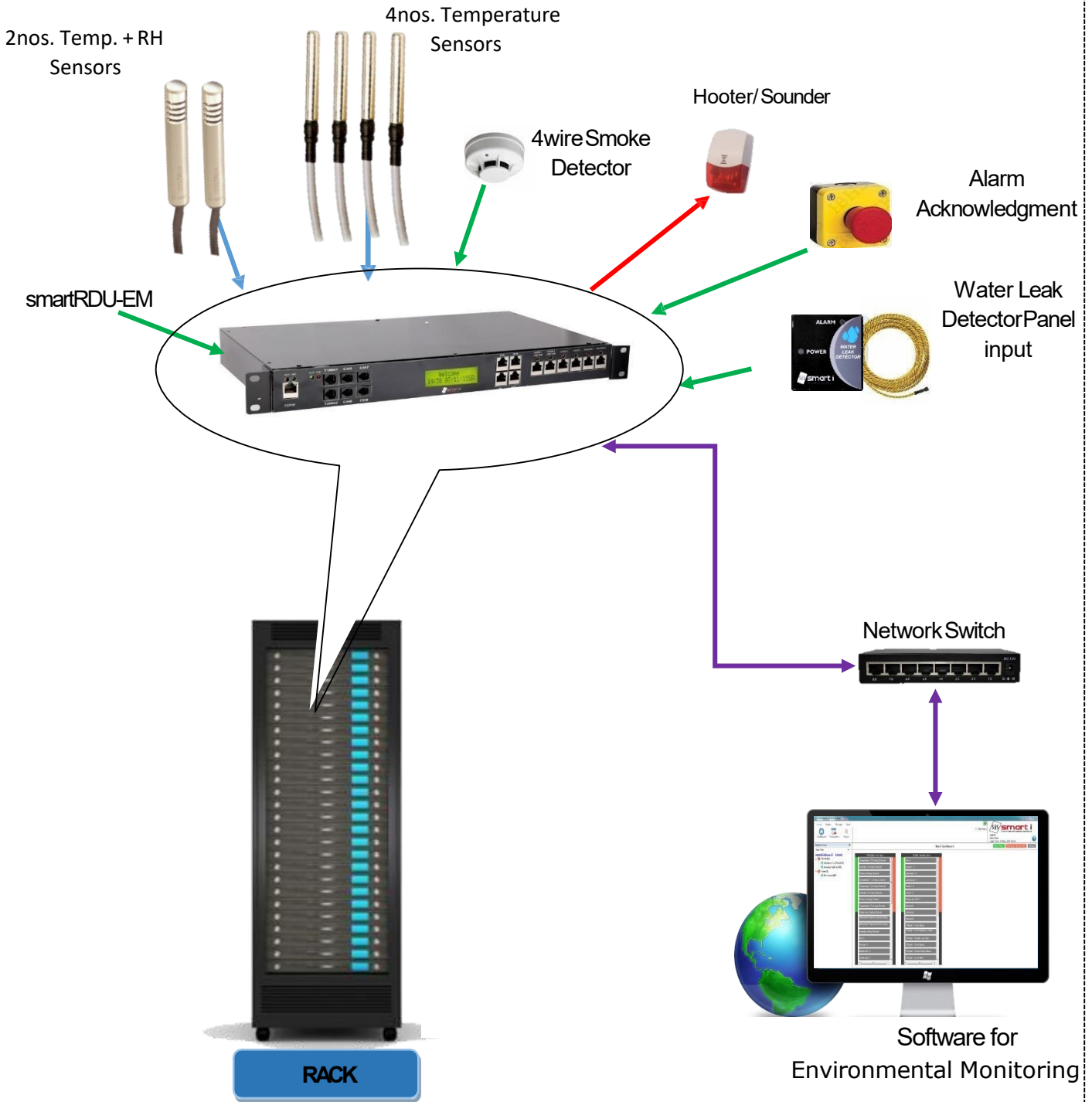
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WHAT IS smartRDU-EM

Smart I Model No: SDC-SRSR-EM001

Description: TCP/IP based Server Rack Environmental Monitoring in 1U Size Rack Mounting Enclosure. Also includes monitoring of various Environmental parameters like Room temperature, Room humidity as well as Sense Smoke and water leak detector.



BRIEF OPERATION OF SYSTEM smart RACK (RDU-EM)

- SMNR220-EM can be easily fit inside the Rack because of its 1U size.
- EM means Access cum Environmental Monitoring.

Environmental Monitoring:

- This system will monitor Rack Environmental parameters (Temperature and Humidity) by using six sensors. 3 sensors will get place at front side (Top, Bottom & Middle) of the Rack and similarly at the back side of the Rack. PT-100 will get place at Top & Bottom and I2C(T+RH) Sensor at middle.
- If any Temperature or Humidity value goes beyond threshold or Pre-set value, then the system will generate alarm and connected hooter will sound.
- Also monitor for any smoke, and water leak inside the Rack.
- In case of any fire the Rack's Door will get open automatically.
- One Acknowledge input or silent input is there, for acknowledging the alarm output at hooter.

Key Feature

- 1U size Fits into a 19" or 10" rack
- Separate device for every Rack.
- TCP/IP based System, which helps to monitor system from remote location.
- 4nos. Analog channels for Temperature Sensors
- 2nos. Digital channels for Digital Temperature and Humidity Sensors.
- 4nos. potential free inputs for Fire, Intrusion, Water leak detector and Acknowledgment.
- Alarm alerts by e-mail and SMS (Alarm on:Water Leak, Fire, Unauthorised puch).Door opening & Closing from Software.
- Daily receive email about controller health status.
- All Access and Environment related Reports will send on email automatically on daily, monthly basis depending upon configuration done by user.

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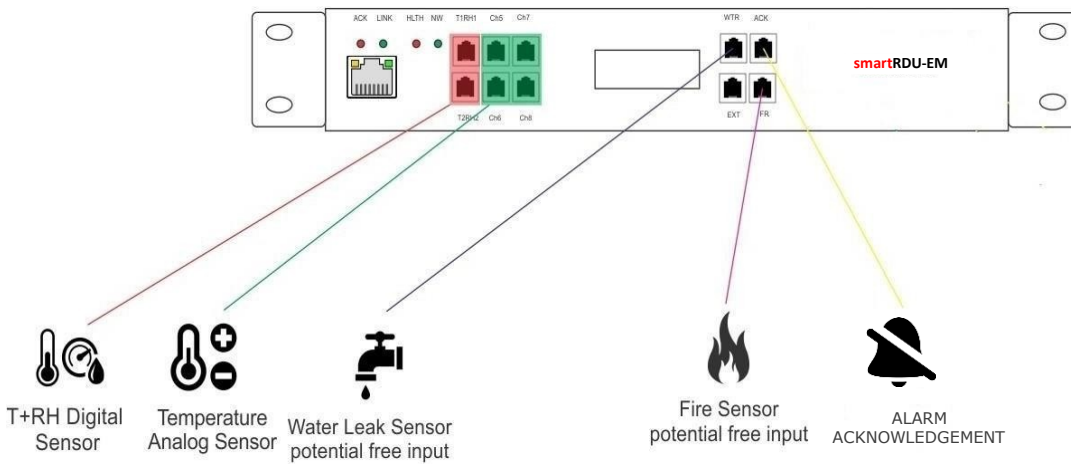
TECHNICAL SPECIFICATION:

<u>Particulars</u>	<u>Specification</u>
Model No.	SDC-SRSR-EM001
CPU	ARM 32 Bit RISC Processor
Memory	4MB Flash
Input	Total 4nos. potential free inputs
Output	1nos. Alarm output relay (to turn ON hooter or strobe light)
Communication Ports	TCP/IP
Temperature Sensors	4nos. Analog Temperature sensors ports
	2nos. Digital Sensors ports (i.e. Temp. +RH Sensor) (1mtr length).
Display	16 X 2 LCD Display
Keypad	NA
Baud rate	9600bps (Default)
Language	English
Power Supply	230V AC, 50Hz
Enclosure	Industry standard Metal Enclosure
Mounting	19" 1U Rackmount (with Metal Enclosure)
Firmware	Remote upgradable

IMPORTANT POINTS FOR HARDWARE INSTALLATION

- Install smartRDU-EM inside the Rack. Then give auxiliary supply 230V AC 50Hz to it.
- Check the LED indication for network connectivity
- Set all network related parameters in smartRDU-EM and connect it in the network over TCP/IP port to communicate with the software.
- Connect all the Sensors and Accessories (Refer Accessories Connection Detail).

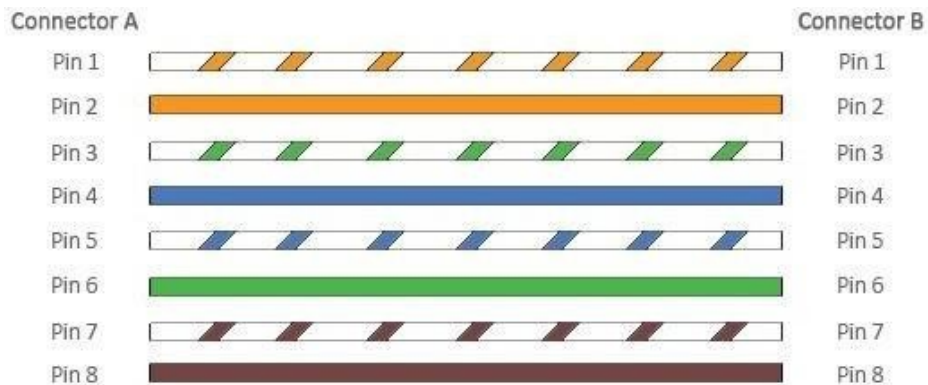
ACCESSORIES CONNECTION DETAILS:



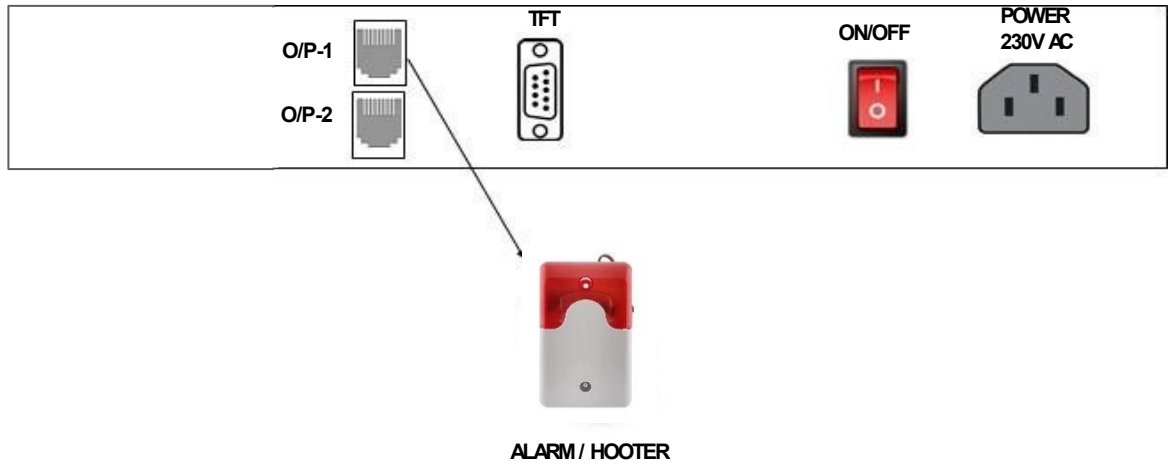
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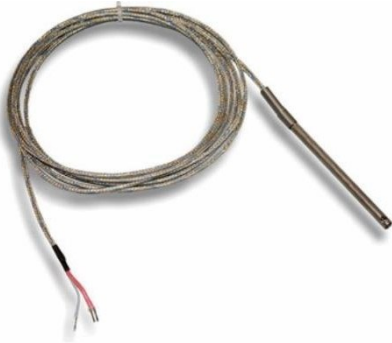
1. Use CAT6 cable to connect Acknowledgement key and Hooter with strobe light
2. Use Shielded Cable 4 Core 736 Gauge for connecting temperature humidity sensors.
3. Cable should be away from (**High Compressor Wire, Generator, 230v AC supply**).

WIRING SCHEME



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PT-100 (Temperature) Analog Sensor
Connect on **Channel 5,6,7 &8**



I2C (T+RH) Digital Sensor
Connect on **Channel 1 & 2**



Hooter

Connect on back side of unit at
o/p-1



Water Leak Detector (WLD)
Connect on **WTR**

SOFTWARE INSTALLATION

Note: Refer smartRDU-EM Software manual.

Salient Features of smartRDU-EM Application:

- 1) User friendly GUI
- 2) Dashboard for quick Alarm Monitoring.
- 3) MIS Reports for various parameters and filters for analysis and actions.
- 4) Email and SMS Configuration for unauthorised access alerts. (SMS pack will be under client scope)
- 6) Automatic and Manual Database backup Daily, Weekly and Monthly.