R170-0B06 PDU Sensor

RF CODE Sensors

Designed for deployment with APC 8xxx series PDUs from Schneider Electric, R170 Sensors enable power monitoring data to flow over the RF Code radio frequency infrastructure.

Features & Benefits

- Significant cost savings, year after year, over a wired Ethernet PDU monitoring solution.
- Eliminates all IP address configuration and maintenance for the PDUs.
- When used with RF Code's environmental monitoring solution, a homogenous view of data center is accomplished with RF Code's Asset Manager or CenterScape software.
- Simple & easy plug-and-play installation.
- Data collection and reporting cycle every 10 minutes and every hour.

R170-0B06 PDU Sensors are designed for deployment with Schneider Electric PDUs. This RF Code & Schneider Electric joint solution allows power monitoring data to flow over the RF Code radio frequency infrastructure, which in turn allows for the elimination of costly wired Ethernet connections to each PDU.

These sensors are custom designed to integrate with the APC 8xxx series PDU's by Schneider Electric. All power data collected from the PDU flows via the RF Code readers to the RF Code software Zone Manager, Asset Manager, CenterScape, and into other applications via new and existing integration modules for power monitoring and display.

The R170 PDU Sensor has an integrated 7-foot cable with an RJ-12 connector that will plug into the PDU "serial" port to access the power monitoring data.

Designed for use with rack-mounted PDUs, the battery-powered 433 MHz RF transmitter features an industrial-strength adhesive backing for quick and easy installation. Simply plug-in the sensor's locking RJ-12 connector, peel off the sensor's adhesive liner, and attach the sensor to the top of the rack (this ensures clear signal transmission in metal-dense data center environments). These sensors periodically report their own unique ID, the PDU model number, serial number and PDU operational values, including: connected /disconnected status, active power, apparent power, and data collection start time. Additional power attributes include detailed PDU outlet and phase data, breaker data, and line feed data.

Each sensor broadcasts its unique ID and a portion of the PDU data once every 10 seconds using RF Code's patented communication protocol. The software presents all of the collected power parameters and computes additional attributes from this data to provide a complete picture of power utilization. Power attributes can be visualized via:

- Live table and map views
- Interactive graphing
- Scheduled reports and graphs
- Alerting and thresholds

Powered by a replaceable coin cell battery, the R170 sensor will perform reliably in any data center environment (the sensor's specified operating temperature range is -20 to +70 degrees Celsius). R170 cases are impact resistant and temperature stable. The R170 sensor operates with a very low duty cycle that translates to long battery life (typically > 5 years). Featuring a low-battery alert, the sensor will continue to report PDU operational data for at least three months following this alerting.

R170 PDU Sensors only receive information from the PDUs. The sensors do not allow any commands to be received by the unit, hence no outlet switching or other actions are possible through the sensor. This means the RF Code wireless solution does not compromise power security.

The R170 PDU Sensor is ideal for data center managers that want to minimize wiring and eliminate the costly administrative overhead of managing IP connections to each PDU.

RF Code R170 PDU Sensor Specifications

OPERATION	
Operating Frequency	433.92 MHz
Group Code & Sensor ID Codes	> 540,000 unique IDs per Group Code
Typical Transmission Range	> 30 ft in the data center
Radiated Emissions	71.8 dBuV/m at 3 meters (maximum)
Modulation	ASK
Stability	Saw stabilized
Sensor Cable Length (RJ45 from Sensor to Sensor Port)	7 ft (2.1 m)

ENCLOSURE	
Case Length	1.35 in (34.28 mm)
Case Width	1.84 in (46.74 mm)
Case Height	0.50 in (12.7 mm)
Case Weight (with sensor)	0.66 oz (18.71 g)
Construction	Injection-molded polycarbonate enclosure
Durability	Tough, impact resistant and temperature stable
Mounting Options	Industrial-strength adhesive or screw-mountable snap-in bezel

ENVIRONMENTAL	
Operating Temperature	-20° C to +70° C
Storage Temperature	-40° C to +80° C
Sealing	Splash resistant

POWER	
Battery Type	Lithium CR2032 replaceable coin cell
Smart Sensor Feature	Low battery indication
Battery Life	> 5 years (typical)

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