

SMARTSENSORS™

MONITOR YOUR DATA CENTER WITH PLUG-AND-PLAY SENSORS

Engineered to furnish accurate data and insight into your operation, SmartSensors advanced features allow easy deployment, clear identification of hot spots, and airflow management. Available models monitor temperature, humidity, airflow, differential air pressure, water/leaks, contact closures, proximity detection, vibration, and more.

EASY COMPLIANCE WITH ENVIRONMENTAL STANDARDS

SmartSensors are a valuable tool to accurately report critical environmental conditions affecting IT equipment and to help you follow ASHRAE guidelines. They facilitate the collection of crucial environment data and provide a more efficient management experience by pushing collected data through the Xerus™ Technology Platform embedded in Server Technology intelligent PRO3X and newer Rack PDUs (not compatible with PRO1 and PRO2 series Rack PDUs).

**IMPROVE UPTIME
EASILY OBTAIN CRITICAL DATA
SIMPLE DEPLOYMENT**



SmartSensor Benefits

- Accurately monitor temperature, humidity, airflow, differential air pressure, water leaks, and vibrations
- Improve uptime and remediate critical risks by receiving real-time alerts of potential threats in your environment before they cause an issue
- Plug-and-play connection to a Xerus enabled power management device
- Save on cooling by confidently raising data center temperatures
- Check airflow and air pressure to and from racks to prevent hot spots and bypass recirculation
- Make smarter rack management decisions based on factual environmental insights
- Improve field response-time to alerts with status LEDs
- Seamless integration to DCIM

DATA CENTER SENSORS

Designed to meet the standards and needs of data centers, labs, facilities, network/compute closets, or remote locations like colocation, POP, and telecommunication sites.

TEMPERATURE AND HUMIDITY

String together 3 sensor packages to easily mount sensors to the bottom, middle, and top of the cool air inlet side as per ASHRAE² guidelines.

TEMPERATURE

Place at the front or rear of the rack to monitor cool air entering and/or hot air being expelled to ensure proper containment.¹

VIBRATION

Detect shock and vibrations over a range of frequencies.

AIRFLOW

Meter airflow in areas involved in the circulation of airflow such as under a raised floor or just above the perforated tiles.

WATER/LEAK

Detect the presence of water and identify the specific location of the leak.

CONTACT CLOSURE

Detect the open-and-close and on/off status of connected third-party door position, door lock, and vibration detectors.

TEMPERATURE AND DIFFERENTIAL AIR PRESSURE

Meter differential air pressure above and below a raised floor, or between hot and cold aisles to prevent thermal leaks.

COMPATIBILITY

SmartSensors are designed for easy deployment with a plug-and-play connection to Xerus enabled power management devices³ including Server Technology intelligent PRO3X Rack PDUs. Once connected, SmartSensors can be easily integrated into any DCIM or other monitoring software.

1 Additional temperature and humidity sensor options are available.

2 The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recommends measuring the cool air entering IT equipment near the bottom, in the middle, and near the top of each IT rack. And at least one sensor at the back of the cabinet in the hot aisle.

3 SmartSensors are not compatible with Server Technology PRO1 or PRO2 series Rack PDUs.

INNOVATIVE FEATURES

LED INDICATOR

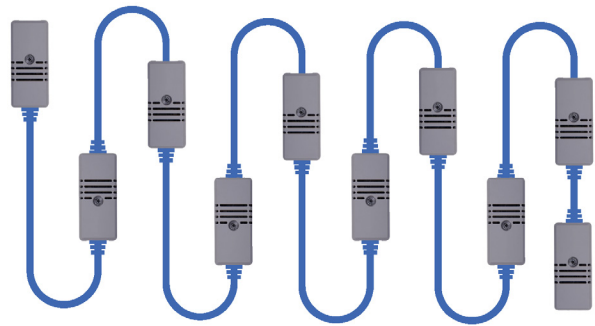
An LED light visually indicates when thresholds are exceeded, improving field response time to remediate critical risks.

DUAL RJ45 CONNECTORS

Dual RJ45 connectors ease the installation and servicing of sensor packages without rewiring the rack, saving on time and maintenance costs.

SINGLE BUS/STRING TECHNOLOGY

Ensure comprehensive measurement and monitoring by cascading different types of SmartSensors in a single bus/string structure. Now cascade up to 32 sensor functions or up to 12 sensor packages* with standard Cat5/6 cables to instrument entire data center rows.



(* A SmartSensor package may have multiple functions, such as the DX2-T1H1 which has 2 functions: 1 temperature and 1 humidity function. Similarly, the DX2-T1DP1 has 1 temperature and 1 differential air pressure function.)

HIGH-ACCURACY AND HIGH-RELIABILITY METERING

SmartSensors are designed with the latest, most advanced metering components to prolong its lifespan, improve reliability, and ensure it runs efficiently.

MANAGE SENSORS WITH DCIM

Environment data collected by SmartSensors can be sent to DCIM software which allows you to confidently raise ambient temperatures and adjust the fan speed in CRAHs and CRACs to increase energy savings and get the most out of cooling systems.

Users can also compare the data collected from sensors to the environmental envelope of a psychrometric chart to ensure that adequate cooling and proper operating conditions are maintained.

Part Number	Type of Sensor	Description	Range	Accuracy
DX2-T1	Temperature	Single temperature sensor	0°C to 20°C 20°C to 70°C	+/- 2°C +/- 1°C
DX2-T1H1	Temperature and Humidity	Single combination temperature and humidity sensor	0°C to 20°C 20°C to 70°C 0% RH to 100% RH	+/- 2°C* +/- 1°C* +/- 5% /RH**
DX2-T2H2	Temperature and Humidity	Dual sensor packages [(2) DX2-T1H1]	0°C to 20°C 20°C to 70°C 0% RH to 100% RH	+/- 2°C* +/- 1°C* +/- 5% /RH**
DX2-T3H1	Temperature and Humidity	Three sensor packages [(1) DX2-T1H1 + (2) DX2-T1] (four sensors total in three housings)	0°C to 20°C 20°C to 70°C 0% RH to 100% RH	+/- 2°C* +/- 1°C* +/- 5% /RH**
DX2-AF1	Airflow Management	Single airflow sensor	0 to 4 m/s	N/R
DX2-T1DP1	Differential Air Pressure	Single combo differential air pressure and temperature sensor	0°C to 20°C 20°C to 70°C -250 to 250 Pa	+/- 1°C +/- 1.5% FS (at 20°C, 50% RH)
DX2-CC2	Contact Closure	2 Contact Closure sensors for connection and management of third-party sensors (smoke, sound, etc.)	N/R	N/R
DX-PD2C5	Contact Sensor	Powered Dry Contact with switchable 12V output and 5 Contact Closure sensors	N/R	N/R
DX2-WSF-35-KIT	Water/Leak Floor	1 water sensor + 3.5m floor water sensor	N/R	N/R
DX2-WSF-70-KIT	Water/Leak Floor	1 water sensor + 7.0m floor water sensor	N/R	N/R
DX2-WSF-100-KIT	Water/Leak Floor	1 water sensor + 10.0m floor water sensor	N/R	N/R
DX2-WSC-35-KIT	Water/Leak Rope	3.5m rope water/leak sensor	0 to 3.5m	+/- 1m (at 27°C, 50% RH)
DX2-WSC-70-KIT	Water/Leak Rope	7.0m rope water/leak sensor	0 to 7.0m	+/- 1m (at 27°C, 50% RH)
DX2-WSC-100-KIT	Water/Leak Rope	10.0m rope water/leak sensor	0 to 10.0m	+/- 1m (at 27°C, 50% RH)
DX-VBR	Vibration	Single vibration sensor	0 to 13.85g	+/- 0.1g
DX-PIR	Proximity and Motion	1 occupancy (proximity) sensor + 1 tamper sensor	0 to 5m	N/R
*when humidity is 20%–60% RH **when the temperature is at 25°C FS (Full Scale), g (Force), N/R (Not Rated), Pa (Pascals), RH (Relative Humidity)				