

DATA SHEET



The NanoULTRA-Matrix+ allows you connect multiple wireless sensors to the CDLSmartHub™ allowing measurement of temperature, humidity, CO2, Voltage, current, vibration and much more. The battery powered sensors have excellent penetration within buildings making for a quick and easy set up process, this is complimented by 5+ Years battery life for a truly fit and forget experience.

The data is sent via the gateway and then transmitted to our secure IoT cloud platform, the CDLSmartHub™, where the data can be turned into actionable insights. From the CDLSmartHub™ you can configure and manage assets, set alarms, view audit trails, integrate and export data, view trends and visualise data. Investing in the NanoULTRA - Matrix+ and CDLSmartHub™, gives you access to a fully integrated end-to-end IoT solution to effectively manage your assets.

MEASUREMENTS



- Machinery up time • Temperature/Humidity monitoring • Outdoor temperature/Humidity • Dust • Light levels • Water leak detection • Air quality • Vibration levels • Pulse counter inputs for energy/flow meters • Voltage/current levels • Activity timers • CT current sensors • CO2 • Occupancy sensor and more.....



Cloud based IoT platform



LoRa Wireless Sensor Network



2000m line of sight sensor range



Email and SMS Alerts

KEY FEATURES






















- Up to 5000m line of sight and 2000m indoor sensor range
- Seamless communication to the CDLSmartHub™
- Extensive range of sensors available
- Simple set up, simply plug in and log onto web, no custom software to install
- Battery powered for 5 Years+
- Long range wireless sensors allowing for minimal disruption during installation
- No reliance on local IT networks to transmit data









APPLICATIONS


















- Wooden construction • Leak detection • Smart Construction site • Modular buildings • Machinery status and activity • Room temperature/Humidity • Workplace environmental control • Industrial coatings • Condensation/mould monitoring and control • Greenhouse conditions • Temporary climate control • Food production • Refrigeration/cold rooms • Legionella • Electronic production clean rooms • Agri/horticulture • Smart buildings • Concrete curing





| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|--|---|-----------|
| 003-ACJ-001 | LoRaWAN gateway for indoor use. 3G/4G connectivity. 12Vdc 1A PSU. | |  | CE/FCC |
| 003-ACK-001 | LoRaWAN gateway for indoor use. 3G/4G connectivity. 12Vdc 1A PSU. Complete with battery back up. | | As above | CE/FCC |
| 003-ACL-001 | LoRaWAN gateway for indoor use. Ethernet connectivity. 12Vdc 1A PSU. | | As above | CE/FCC |
| 003-ACM-001 | LoRaWAN gateway for indoor use. Ethernet connectivity. 12Vdc 1A PSU. Complete with battery back up. | | As above | CE/FCC |
| 040-AAB-001 | Moisture sensor. Ambient RH, sensor options for temperature, WME (resistance/moisture content), Leak detection rope, 5mm temperature and RH probe | |  | CE |
| 002-AAE-001 | Leak detection rope - 3m (shown attached to sensor) | |  | CE |
| 002-AAB-002 | Moisture content cable with ring crimp connectors. (WME) 50cm | |  | CE |
| 003-AAD | 5mm Temperature and RH probe. Compatible with NUL-SEN. 0 - 100% RH (+/-2% RH accuracy) & -40 to +125°C. Supplied on 2 m cable. | |  | CE |
| 003-AAV-001 | Door/Window Sensor | Built environment, machine activity notifications |  | CE/FCC |
| 003-AAW-001 | Activity Detection Sensor. Vibration detection and alerting. | Built environment, machine activity notifications |  | CE/FCC |
| 003-AAZ-001 | Activity Timer. Duration of movement or vibration is logged. | Security, machine/asset operation performance monitoring |  | CE/FCC |
| 003-ABA-001 | Light Sensor. Detection of ambient light conditions. 1~3000LUX | Built environment |  | CE/FCC |
| 003-ABB-001 | Water Leak Detector. 2* leak detectors each on 300mm of wire. | Built environment |  | CE/FCC |

| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|---|---|-----------|
| 003-ABC-001 | Emergency Button. For use in mobile applications, can be worn on person. Alerts can be sent to configured personnel via SmartHub when button is pressed | Security, built environment, lone worker |  | CE/FCC |
| 003-ABD-001 | Temperature and Humidity Sensor for indoor use. Operating range 20°C – 55°C, 10%RH – 90% RH. Clip mounting | HVAC, warehouse/cold room monitoring, pest elimination auditing, general built environment |  | CE/FCC |
| 003-ABE-001 | Outdoor Temperature and Humidity Sensor. Working temperature -10°C ~ 50°C | HVAC monitoring, environmental control |  | CE/FCC |
| 003-ABF-001 | Industrial temperature and Humidity Sensor. Operating range -20°C – 55°C, 10% RH – 90%RH. Clip mounting. IP64 | HVAC, warehouse/cold room monitoring, general built environment |  | CE/FCC |
| 003-ABG-001 | 2-Gang K Type thermocouple sensor. Suppled with 2* Probes on 1m cable | Environmental chamber monitoring, concrete curing monitoring, furnace/boiler/chiller monitoring |  | CE/FCC |
| 003-ABH-001 | Vibration Sensor. Alerts triggered when vibration starts/stops | Predictive maintenance, machine activity notifications |  | CE/FCC |
| 003-ABI-001 | Reed Switch Sensor | Security, built environment |  | CE/FCC |
| 003-ABJ-001 | Industrial light level sensor. 3 LUX-220 KLUX | Built environment |  | CE/FCC |
| 003-ABK-001 | Pulse Counter Interface | Energy/flow monitoring, built environment |  | CE/FCC |

| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|---|---|-----------|
| 003-ABL-001 | 2-Input Pulse Counter sensor | Energy/flow monitoring, built environment |  | CE/FCC |
| 003-ABM-001 | 0-5V ADC Sampling sensor. Fitted with 1m cable | Instrumentation/sensor connectivity |  | CE/FCC |
| 003-ABN-001 | Dual Input 0-5V ADC Sampling Interface. Fitted with 1m cables | Instrumentation/sensor connectivity |  | CE/FCC |
| 003-ABO-001 | Digital input sensor. Will report when input changes state and/or on the natural report rate | Security, machine monitoring |  | CE/FCC |
| 003-ABP-001 | Dual input digital input sensor. Will report when input changes state and/or on the natural report rate | Security, machine monitoring |  | CE/FCC |
| 003-ABR-001 | Industrial activity detection sensor (IP67). Vibration detection and alerting. | Built environment, machine activity notifications |  | CE/FCC |
| 003-ABS-001 | Industrial. Activity Event Counter. Based on vibration events | Built environment, machine activity notifications |  | CE/FCC |
| 003-ABT-001 | Industrial activity timer. Duration of movement or vibration is logged. | Built environment, machine activity notifications |  | CE/FCC |

| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|--|---|-----------|
| 003-ABU-001 | 1-Phase Current Meter 30A. Solid core CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ABV-001 | 1-Phase Current Meter 75A. Split core CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ABW-001 | 3-Phase Current Meter 3x60A. Solid core CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ABX-001 | 3-Phase Current Meter with 3 x 150A Clamp-On CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ABY-001 | 3-Phase Current Meter with 3 x 250A Clamp-On CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ABZ-001 | 3-Phase Current Meter with 3 x 630A Clamp-On CT | Energy. Machine performance. Built environment |  | CE/FCC |
| 003-ACA-001 | 3-Phase Current Meter 3 x 75A | Energy. Machine performance. Built environment |  | CE/FCC |

| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|---|---|-----------|
| 003-ACB-001 | Water Leak Detector. Industrial package. One sensor on 1m of cable | Built environment |  | CE/FCC |
| 003-ACC-001 | Water Leak Detector with Rope Sensor. 3m rope length | Built environment |  | CE/FCC |
| 003-ACD-001 | CO2 (0-5000 ppm)/Temperature/Humidity Sensor | Built environment |  | CE/FCC |
| 003-ACE-001 | PM2.5 (Dust) / Temp / Humidity Sensor | Built environment |  | CE/FCC |
| 003-ACF-001 | Wireless Plug-and-Play Power Outlet with Consumption Monitoring, UK Type. 10 Amp capacity | Built environment. Machinery control |  | CE/FCC |
| 003-ACG-001 | Wireless Liquid Level Sensor (DC-powered) | Built environment |  | CE/FCC |
| 003-ACH-001 | Emergency Push Button (battery) | Built environment. Security |  | CE/FCC |
| 003-ACI-001 | Occupancy/Light/Temperature Sensor | Built environment. Security |  | CE/FCC |

| Part code | Description | Potential applications | Picture | Approvals |
|-------------|---|------------------------|--|-----------|
| 003-ADA-001 | Minimalistic environmental sensor - Temperature, Humidity, Acceleration, Water Leak and Door Switch - Enclosure size 21.2 x 74.9 x 20.8mm | Built environment |  | CE/FCC |
| 003-ADB-001 | Lite Temperature & Humidity LoRa Sensor - Enclosure size 86 x 86 x 28mm | Built environment |  | CE/FCC |
| 003-ADC-001 | Temperature Humidity & Light LoRa Sensor - Enclosure size 21.2 x 74.9 x 20.8mm | Built environment |  | CE/FCC |
| 003-ADD-001 | Industrial Sensor Input Transceiver - RH, Temperature, Modbus (RS 232/422/485). 1 digital input, 2 analogue inputs (1x 0-10V, 1x 4-20mA) , 2 digital outputs. Supplied with lithium D cell. Enclosure size 90 x 90 x 60mm | |  | CE/FCC |