



BROCHURE

Serial-Gateway

Dynamic Ratings

Distributed by AKRIBIS





**DYNAMIC
RATINGS**



Serial Gateway

ConnectGrid™ Smart Infrastructure Solution



ConnectGrid™ Industrial
IoT Platform Enabled



Efficient Use of Resources



Commissioning-Free

RESPONSIVE

ASSET HEALTH SOLUTIONS



Asset Monitoring Made Easy

The Dynamic Ratings Serial Gateway expands the use of ConnectGrid™ Smart Infrastructure Solution allowing for increased grid edge visibility of distribution systems. This flexible wireless solution for data retrieval allows for integration of third party devices and asset monitors without native ConnectGrid™ connectivity. Once data is available on the ConnectGrid™ platform, the data can be utilized by several applications for visualization and analytics to improve distributed energy management (DERMS) and other advanced distribution management system (ADMS) applications.

With secure integrated wireless communications utilizing cellular or LoRaWAN technologies, the serial gateway eliminates the need to manage a separate communication backhaul architecture or hang expensive and difficult to maintain pole mounted gateway enclosures. This makes the ConnectGrid™ serial gateway the fastest and easiest to maintain way to expand connectivity for distribution system.

The serial gateway enables data collection from any device with a RS232 or RS485 serial connection and pushes the data onto the ConnectGrid™ IoT platform. This same connection will provide power over line to simplify installation with IED's and other sensors.



ConnectGrid™ Industrial IoT Platform Enabled

Built on utility grade hardware, the IP66 rated Serial Gateway is designed to exceed field conditions and meet expected service life. As part of the ConnectGrid™ IoT Platform, data collection from the wireless serial gateway is seamless and efficient thereby eliminating communication setup errors.



Efficient Use of Resources

Increasing use of grid edge information allows for more efficient use of costly labor resources and improves the system reliability by reducing unplanned outages. Traditional SCADA architectures are burdened by power hungry technologies that evolved from substation environments. These systems require additional infrastructure to power and significant effort to secure properly for use on the distribution system which makes them cost prohibitive. The ConnectGrid™ IoT platform addresses these concerns by taking advantage of latest Low-Power Wide-Area Network (LPWAN).



Commissioning-Free

The ConnectGrid™ serial gateway is designed to be plug and play compatible with a wide range of sensors including hydrogen, moisture and SF6 to eliminate unnecessary commissioning. This simplifies deployment for large scale systems to maximize effectiveness of the smart infrastructure solution.

ConnectGrid™ Smart Infrastructure Solution Benefits

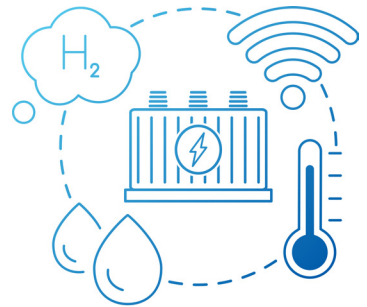
The Connect IoT Serial Gateway is part of our suite of IoT based sensors for distributed monitoring applications that embodies key design elements to ensure success:

- Driven by data security, privacy and reliability for a long operational life
- Support device management and remote over the air firmware updates for a large fleet
- Uses an enterprise architecture that can be hosted on or off premises
- Seamless integration with back-end systems such as analytics and SCADA (e.g. DNP3)
- Premium Lifestream® support to ensure deployment success

Serial Gateway Applications

Connection to existing transformer temperature monitors such as B100

This application allows transformer load and temperature data to be brought back into the monitoring platform without the need to run new fibres or reconfigure a SCADA system. The installation onto an existing device is quick and easy, requiring no additional power supplies or fusing. Immediately view or graph data, receive email alerts on over-temperature alarms, or pipe the data directly into your historian using DNP3 or an API.



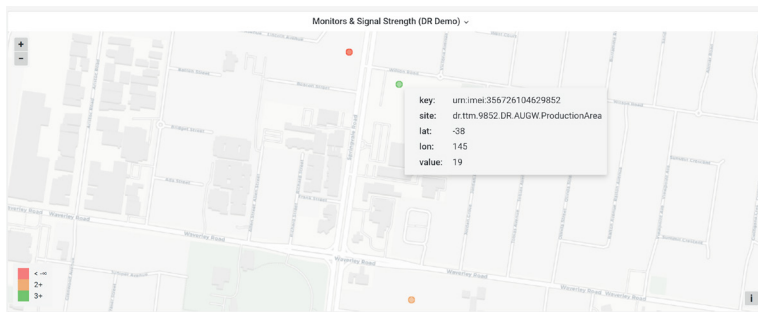
Remote monitoring of dissolved gas and moisture in power transformers

Utilizing simple gas and moisture sensors, data can be quickly collected and processed through advanced algorithms that help determine the health of an asset and catch incipient faults. Avoid expensive communication and SCADA costs and get the benefit of these sensors quickly.

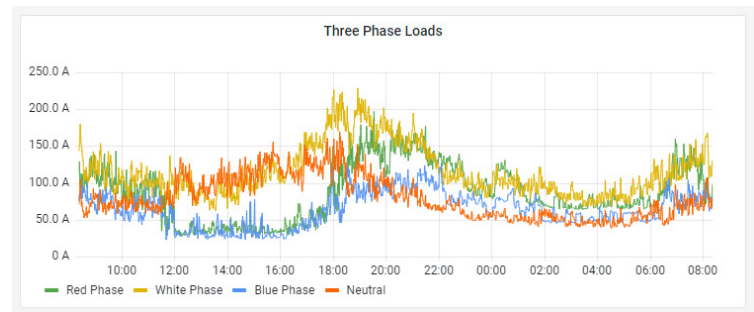


SF6 gas monitoring, forecasting and reporting

Most utilities around the world are now required to report SF6 gas usage (or loss) to regulating agencies. This can be easily and accurately automated with the installation of wireless SF6 gas sensing and an automated reporting platform. Furthermore, this system can also monitor gas leaks and forecast when low gas limits will be reached, allowing proactive maintenance scheduling.



Track equipment location, status visualize network status with geospatial views that support data layers imported from utility GIS systems.



Monitor transformer loading for model verification and improved system planning.

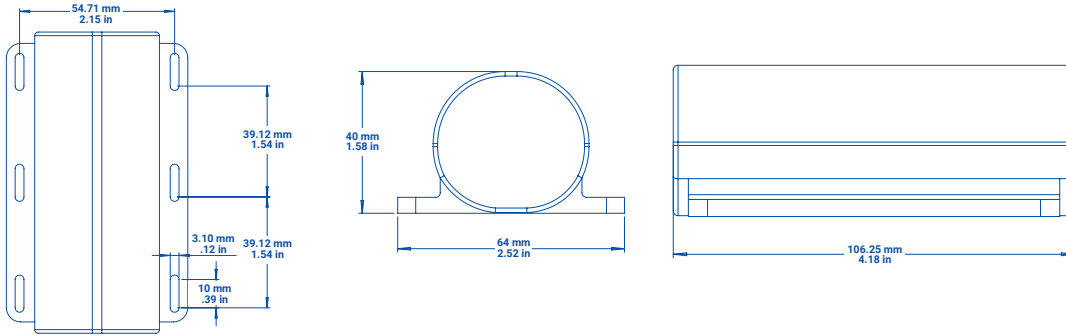
Product Specifications

LPWAN Back-haul Communications

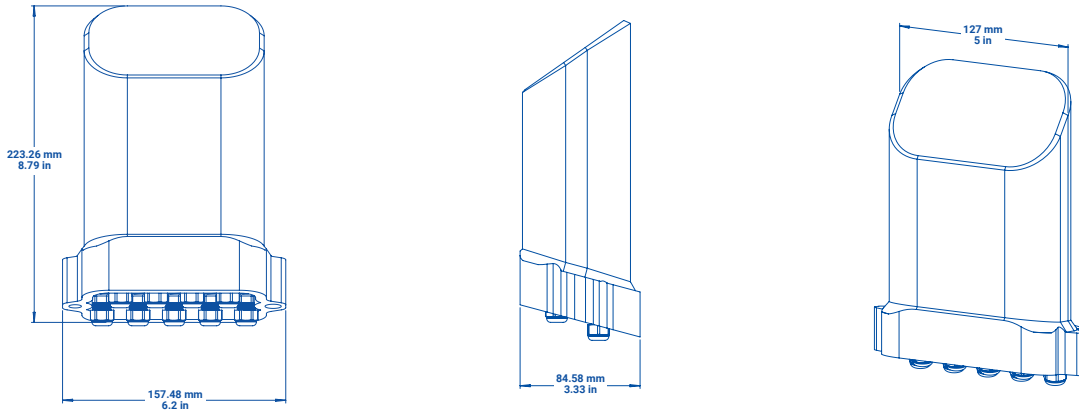
- Cellular: LTE Cat M1 / Cat NB1 (NB-IoT)
- LoRa

Antenna	Internal Antenna or External SMA option
Dimensions	55mm (W) x 111mm (L) x 37mm (D)
Temperature	-20°C to +80°C
Power	3.3 - 36 VDC, <1 W
Battery	5 minutes last gasp
Connector	RJ45
Mounting	Mounting screws, cable ties, or magnetic
Local Communications:	Serial RS232 or RS485. Numerous protocols supported (e.g. Modbus) and others supported via downloadable application Bluetooth LE 4.2. Used for local commissioning or live data or integrating with other Bluetooth devices / sensors.

Serial Gateway
(Internal)



Serial Gateway
(External)



An ISO 9001, ISO 14001, ISO 27001, ISO 45001 Certified Company.

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