



BROCHURE

Serial-Gateway

Dynamic Ratings

Distributed by AKRIBIS



SF₆ Gas Wireless Sensor

ConnectGrid™ Smart Infrastructure Solution

Improve Your SF₆ Gas Tracking

Applications

Instantly monitor the SF₆ gas density, temperature and dewpoint of your gas-insulated equipment to ensure it is ready for operation. Track gas loss in real time and automatically tabulate and report as needed.

Gas-insulated equipment must have adequate gas density to operate correctly. Mechanical gauges only provide very basic information and alarms when it is too late. By monitoring gas in real time, our system can forecast low gas and lockout dates, helping plan maintenance activities.

Optionally, monitor the moisture content of the gas with dewpoint sensing. Switchgear operation with moisture present creates corrosive decomposition products that reduce the life of your equipment. Monitor moisture content and schedule gas regeneration to ensure a long life for your breaker or switchgear.

By using wireless communication and automatically sending the data back to a central location, the system can provide warning alerts, emails and periodic reports. Trend the data and correlate with load and temperature data easily on a web-based interface accessible on PC or mobile devices.



SERIAL GATEWAY
+ SF₆ GAS SENSING

Communications

Using the latest IoT focused Low-Power Wide-Area Network (LPWAN) communication technologies enables the sensor to be rapidly installed and minimizes communication infrastructure cost. All sensors are available with a selection of cellular or LoRaWAN communications, providing flexible, secure and low cost options to get data back.

Connections and Installation

- The package is provided with the SF₆ sensor connected to the wireless interface.
- Sensors can be fitted with various adapters to simplify installation and minimize potential leak points.
- The system requires power connection, and offers a wide-range AC or DC input and uses very little power. The wireless interface can be provided with bolted or magnetic fixing options.



The Dynamic Ratings Tool-kit for Condition Monitoring

The SF₆ wireless sensor 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 firmware updates for a large fleet
- Use 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)

Real-Time Measurements

- Gas Temperature
- Gas Density (calculated from Pressure + Temperature)
- Gas Dewpoint
- Gas Pressure



RESPONSIVE

ASSET HEALTH SOLUTIONS

How to Order

Part Number	Description
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DMS-003-D	Wireless SF ₆ Sensor for Gas Density + Temperature
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DMS-003-H	Wireless SF ₆ Sensor for Gas Density + Temperature + Humidity
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Product Specifications

Temperature Range:	-40°C to 70°C (-40°F to 158°F)
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Gas Temperature Range:	-40°C to 80°C (-40°F to 176°F)
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Gas Density Range:	0 - 60 g/L
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Gas Dewpoint Range:	-50°C to 30°C (-58°F to 86°F)
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Dimensions:	Sensor: 81 x 40 x 40 mm (3.19 x 1.56 x 1.56 inches) Outdoor-Rated Gateway: 180mm x 120mm x 80mm (7.09in x 4.72in x 3.15in) Indoor-Rated Gateway: 63.5mm x 110mm x 39.5mm (2.5in x 4.33in x 1.56in)
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Gas Density Measurement Accuracy:	±0.6% / ±0.35 g/L
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Gas Temperature Measurement Accuracy:	±1°C
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Gas Dewpoint Measurement Accuracy:	±3°C
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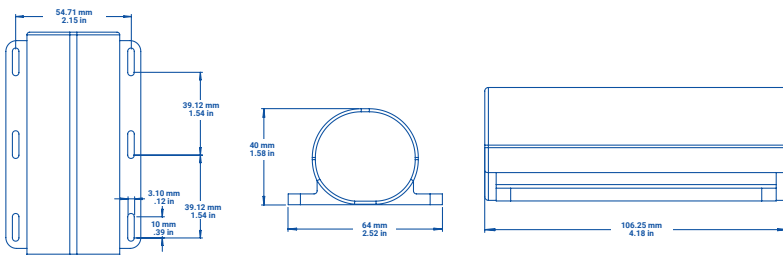
Communications:	Cellular: LTE Cat M1 / Cat NB1 (NB-IoT) LoRaWAN: 1.0.2
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Voltage Input (nominal):	120-370 VDC / 80-260 VAC (24 VDC option available on request)
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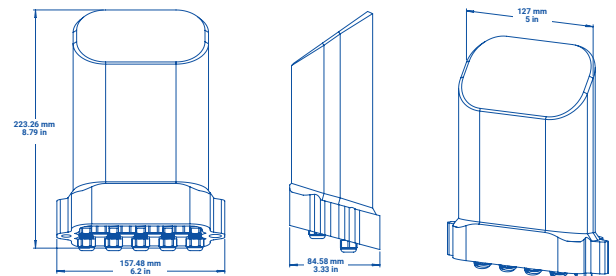
Power Consumption:	15W
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Ingress Protection:	Wireless Interface: IP66 / NEMA-4 Sensor: IP65
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Serial Gateway (Internal)



Serial Gateway (External)



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

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Request a quote from your regional office.

