Rain Grid Detection Module

The RGRD heated rain grid is used to detect precipitation from rain and snow. **

Applications

The RGRD is used for general-purpose outdoor rain detection. It is integral to the Argus weather station and also comes as a standalone version.

Precipitation information is used throughout the Argus system for coordinating the operation ventilation equipment, snow load overrides, irrigation scheduling, and other control activities.

Alternatives

The Argus system can also interface with other third-party rain sensing and rain accumulation sensors. Although this sensor can be used for any type of water droplet detection similar to rainfall, such as sprinkler irrigation and misting control, other products may be more suited for these applications. Contact Argus for more information.

Features

- **Fast Response** – Large grid area makes the sensor quick responding and more sensitive to light rainfall. The sensor reacts quickly to the first raindrops and recovers quickly once the rain stops.
- **Durable Construction** – An all-weather enclosure ensures good reliability and performance in exposed locations.
- **Heated Element** - Heated sensor design ensures rapid drying once rainfall ends and enables the sensor to detect precipitation from snow**. 24-Volt AC or DC supplies can be used for the heater circuit.
- **Advanced Design** – A built-in signal-coupling transformer eliminates DC bias and associated electrolysis of the rain grid (longer life).
- **Versatile** – Connects to any Argus AC sensor input channel on Argus Titan or Classic systems.

**** Rain grid sensors are generally not reliable enough for true snow detection. However, they can be used to provide indications of 'probable' snow conditions. This is because snow can fall at temperatures that are well above freezing and rain can fall at temperatures below freezing (the sensor only detects liquid water and will melt snow down to approximately -15°C). Also, since blowing snow often travels sideways it may not be adequately detected (snowflakes and ice pellets must land and melt on the sensor to be detected).

PHONE: 604-538-3531 or 1-888-667-2091 (Canada and the US) - **FAX:** 604-538-4728 - **EMAIL:** argus@arguscontrols.com

Specifications

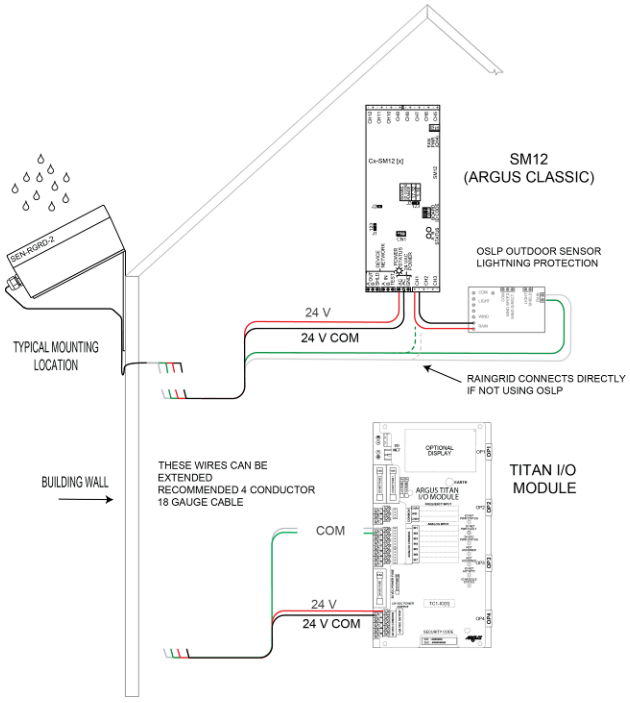
Dimensions (case)	5” x 3.5” x 2.25” (H x W x D)
Sensor Materials	Gold-plated nickel over copper with a silk-screened, white, weather resistant paint mask on the exposed PCB surface.
Housing	ASA plastic, IP65 UV-resistant enclosure.
Mounting Bracket	Powder-coated aluminum.
Included Cable	4-conductor, 22AWG; outdoor UV-rated.
Cable Length	40 feet – extendable.
Sensor Signal	**Argus Classic**: Two-wire connection to an AC input channel on an Argus SM12 module, **Argus Titan**: Two-wire connection to a standard analog input (configured for an AC input signal) on a Titan I/O module.
Power Supply (for internal heater)	24 Volts AC or DC. Power can be supplied from the connected Argus Module as illustrated below, or from a stand-alone 24VAC transformer. Current draw is 110 mA.

Wiring Details

The illustration shows a typical mounting location and connection details for Argus SM12 boards and Titan I/O Modules. The 24-volt connections are used to power the internal heater.

Select an open location with easy access for periodic cleaning and good exposure to rain from all directions. Avoid locations where the sensor can be interfered with by drips from overhead wires, etc.

For installation, always refer to the instructions and wiring diagrams included with the sensor.



Notes: This is a typical wiring example. Refer to the custom wiring diagrams supplied with each part for full installation details.
Wire Sizes: Class II Control Wiring - 18-14 AWG; Power Wiring - 14-12 AWG. Use copper conductors only.

Additional Information

For more information, please contact Argus.

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