

RS485 Cellular Gateway

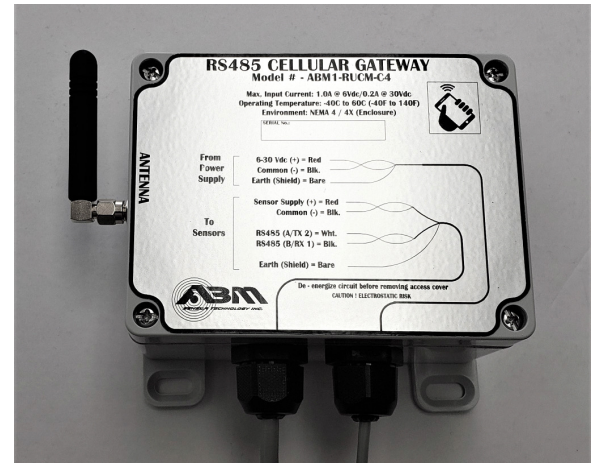
24/7 Online Remote Diagnostics and Troubleshooting
Level Monitoring and Control Via Secure Server



Order from: **C A Briggs Company**; 622 Mary Street; Suite 101 - Warminster, PA 18974
Phone: 267-673-8117 - Fax: 267-673-8118; E-Mail: Sales@cabriggs.com - www.cabriggs.com

Features

- Connects up to eight RS485 type ABM level sensors to the secure ABM server using a cellular network.
- Measurement intervals selectable in 2 min. increments.
- Reporting intervals selectable in 2 min. increments.
- Online access to the server allows monitoring, control, diagnostics and troubleshooting from any web browser.
- Operates from 6 to 30Vdc supply; ideal for most battery or solar applications.
- Low-power feature for extended battery life; can power down sensors until measurement is required.
- Up to 5 alarm types per sensor by email notification.



Applications

- Any liquids or solids that can be monitored by an ABM Ultrasonic or Radar level sensor.
- Any local or remote location where cellular coverage is available.
- Slow processes such as bulk storage, floodway monitoring, etc.

Mechanical

Enclosure

- Polycarbonate Box; 120 x 90 x 60.5mm (4.72 x 3.54 x 2.38"); NEMA 4/4X ingress protection.
- Polycarbonate mounting feet can be set for top/bottom (shown above) or left/right orientation.

Supplied Cables

- From Power Supply: Two-wire 24AWG shielded cable, minimum length of 1.5m (5ft).
- To Level Sensor(s): Four-wire 24AWG shielded cable, minimum length 1.5m (5ft).

Antenna

- Enclosure-mounted antenna (see photo) for indoor or well sheltered installations.
- Optional IP66 enclosure-mounted antenna for outdoor use.
- Optional remote magnetic-mount antenna with SMA connector available.

Electrical

- Supply: 6V to 30Vdc for single sensor; for multiple sensors see Installation Manual.
- Maximum supply current: 1A @ 6Vdc, 0.2A @ 30Vdc (single sensor).

Approvals

Radio Compliance: FCC Part 22, FCC Part 24

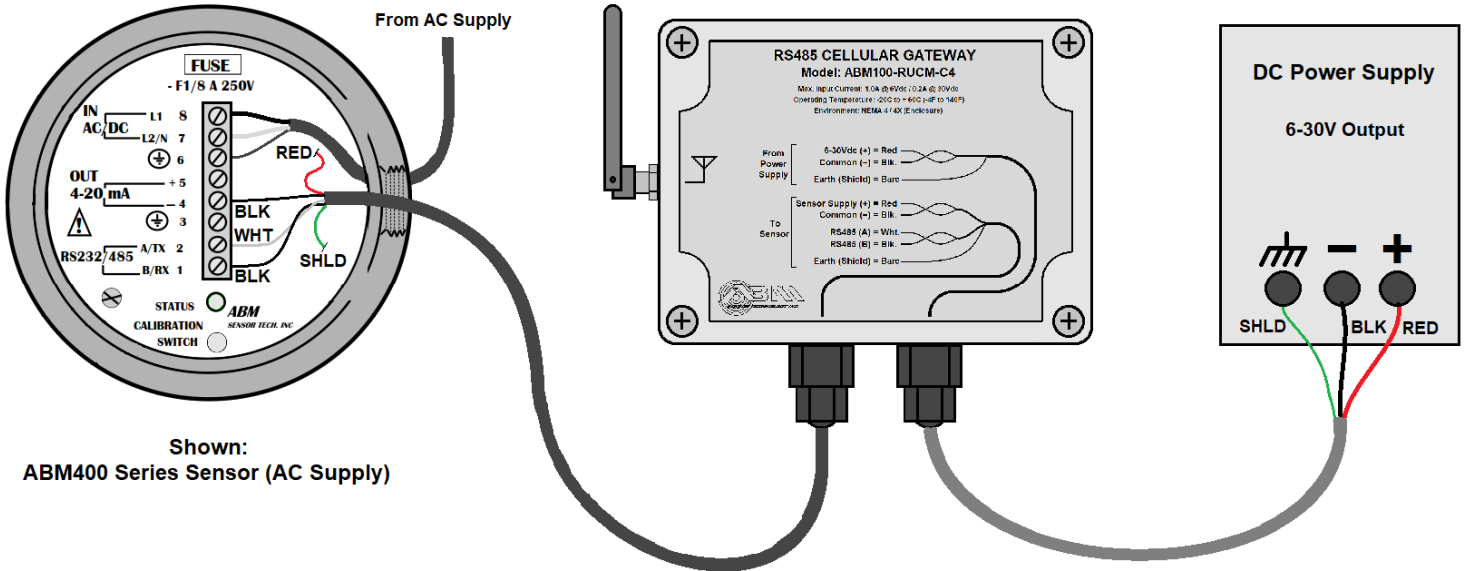
Environmental

Temperature: -40°F to +140°F (-40°C to +60°C)

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Sample Configurations:

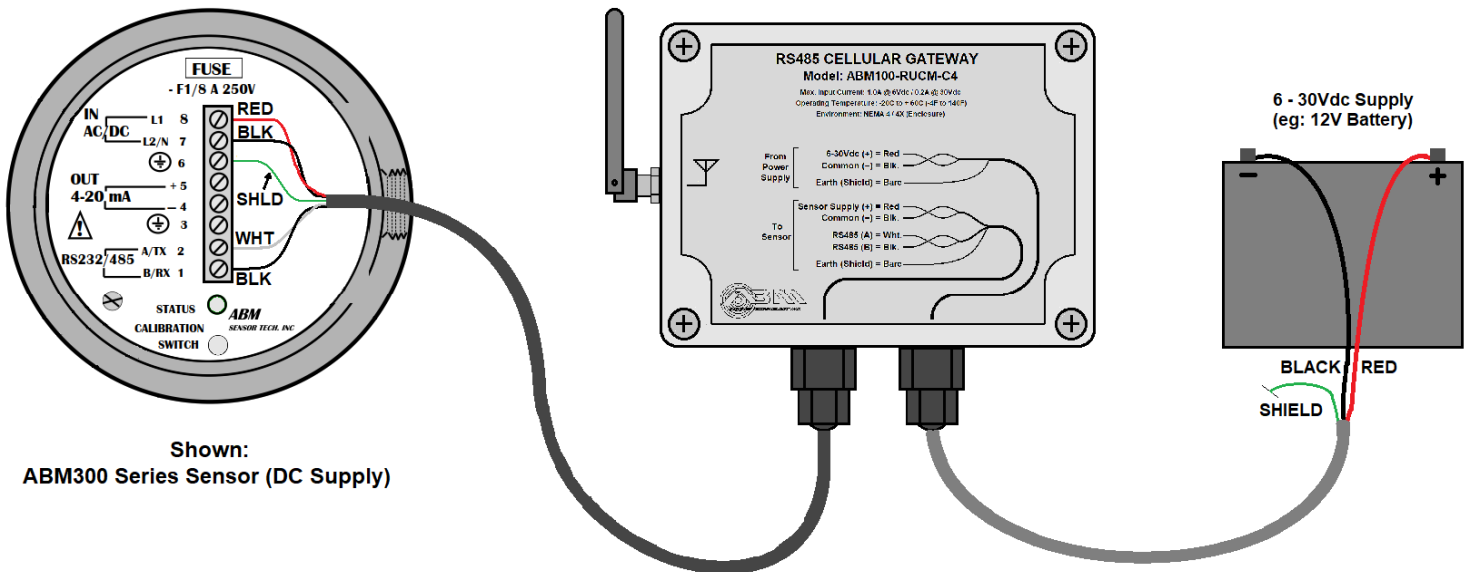
1. Single Sensor, Continuous Power Mode:



Notes:

- As the sensor is separately powered, (and in this case, an AC version), the red power wire is left unconnected. It should be cut off or insulated with tape.
- The sensor's current output (4-20mA) is shown unconnected. A junction box would be required to combine the current and RS485 wiring into the sensor, as only two cables can enter a sensor (one per cable gland).

2. Single Sensor, Low-Power Mode:

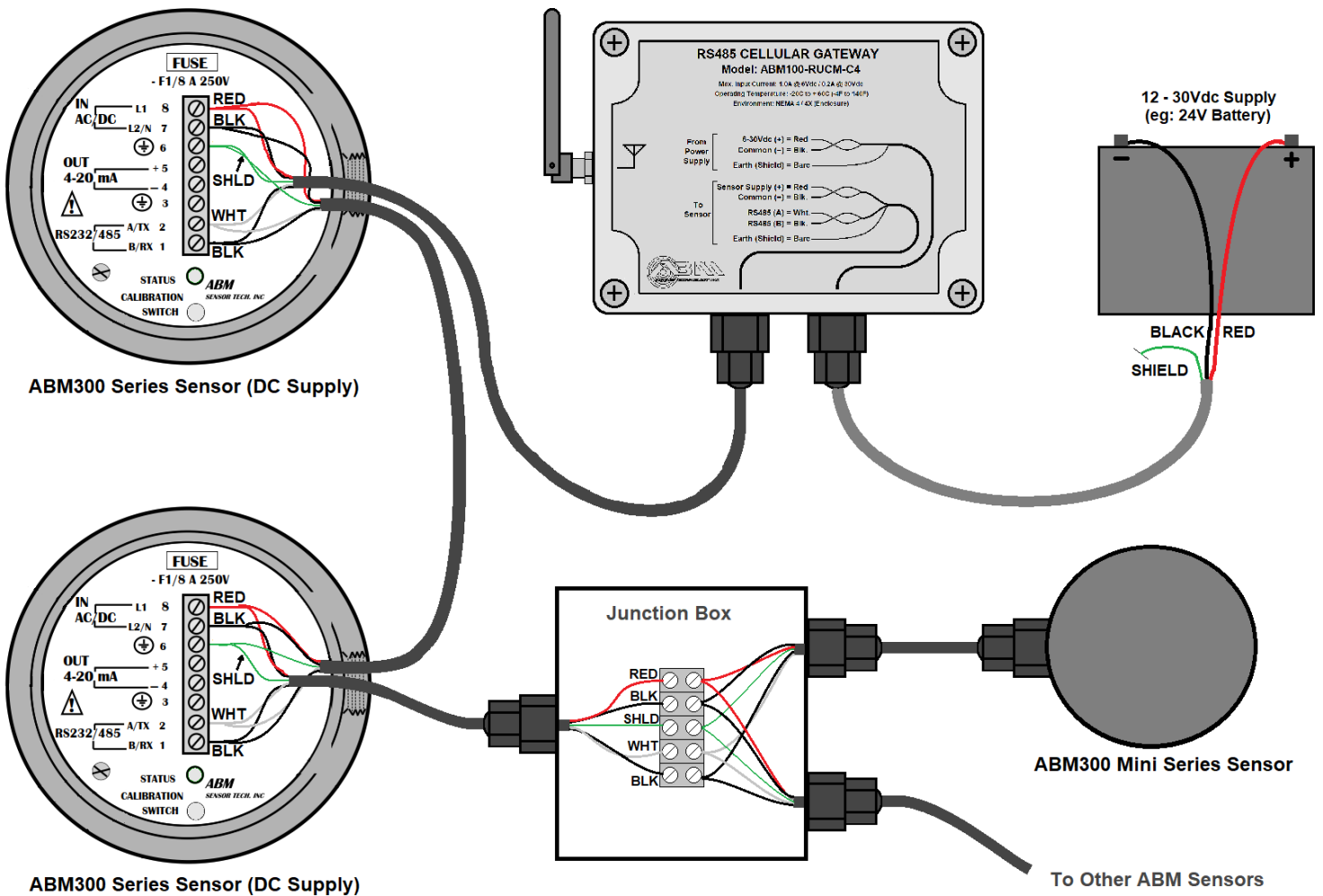


Notes:

- As the sensor is intermittently supplied from the battery through the Gateway, the current output is not used. If it was connected, its output would be active only when the Gateway is making a measurement.

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3. Multiple Sensors, Low-Power Mode:



Notes:

- The above shows multiple DC-powered sensors connected to the RS485 Cellular Gateway in low power mode. As the Gateway is supplying 3 sensors, the supply must be a minimum 12V (see Installation Manual for further details). A 24V battery is ideal, provided that if it is connected to an online charger (eg: AC or solar supply), the charging voltage does not exceed 30Vdc.
- RS485 is designed for multi-drop (daisy-chain) configurations and not generally suitable for star-configurations. As shown above, connection to an ABM300 Mini sensor necessitates a small stub from the Junction Box to the sensor, as the Mini products are only supplied with 6' (2m) pigtail cables and have no user-accessible internal connections. ABM sensors use a low Baud rate (19.2kbaud) at which such short stubs would not be detrimental. Connection to multiple Mini sensors requires multiple junction boxes to limit each stub length to that of each sensor's pigtail.
- Current outputs are shown unconnected. If used, they would not only be intermittent, but would decrease battery life and affect the number of sensors that could be connected (depending on battery voltage).

Please refer to the installation manual for other connection considerations such as shielding, power requirements, etc.

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