



# HydroRIG

A remote intelligent gateway that connects field data to the cloud for easy real-time monitoring





**HydroRIG** is an innovative remote intelligent gateway that enables real-time data from environmental sensors. Whether you're monitoring multiple remote streams in a watershed, a reservoir that supplies a large metropolitan area, or a controlled laboratory study, HydroRIG provides a secure connection to your data. Pair HydroRIG with [HydroSphere](#) for simplified remote data collection, management, and sharing.



## Benefits of HydroRIG



### Remote data access

All-in-one device that replaces a traditional data logger and modem



### Fast & simple deployment

Deploy in under 15 minutes with minimal configuration using a pre-loaded sensor library



### Broad sensor compatibility

Works with all Xylem sensors and most third-party sensors



### Reliable connectivity

99.9+% uptime and multiple cellular telemetry options to suit various locations



### Simplified data management

Quickly connect with HydroSphere for streamlined data management



### Small footprint, big impact

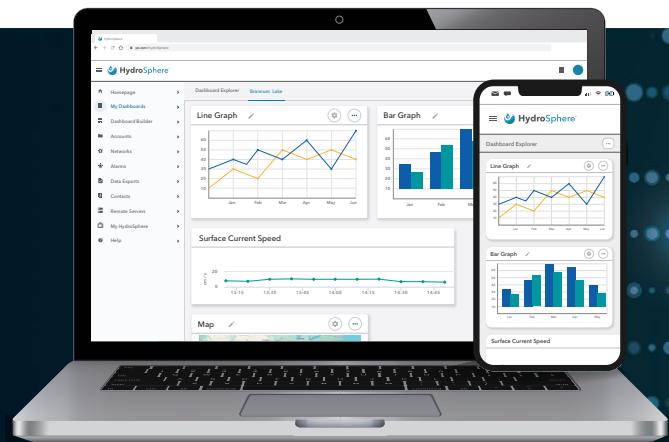
The small form factor allows HydroRIG to be easily integrated into most systems

## Benefits of HydroSphere



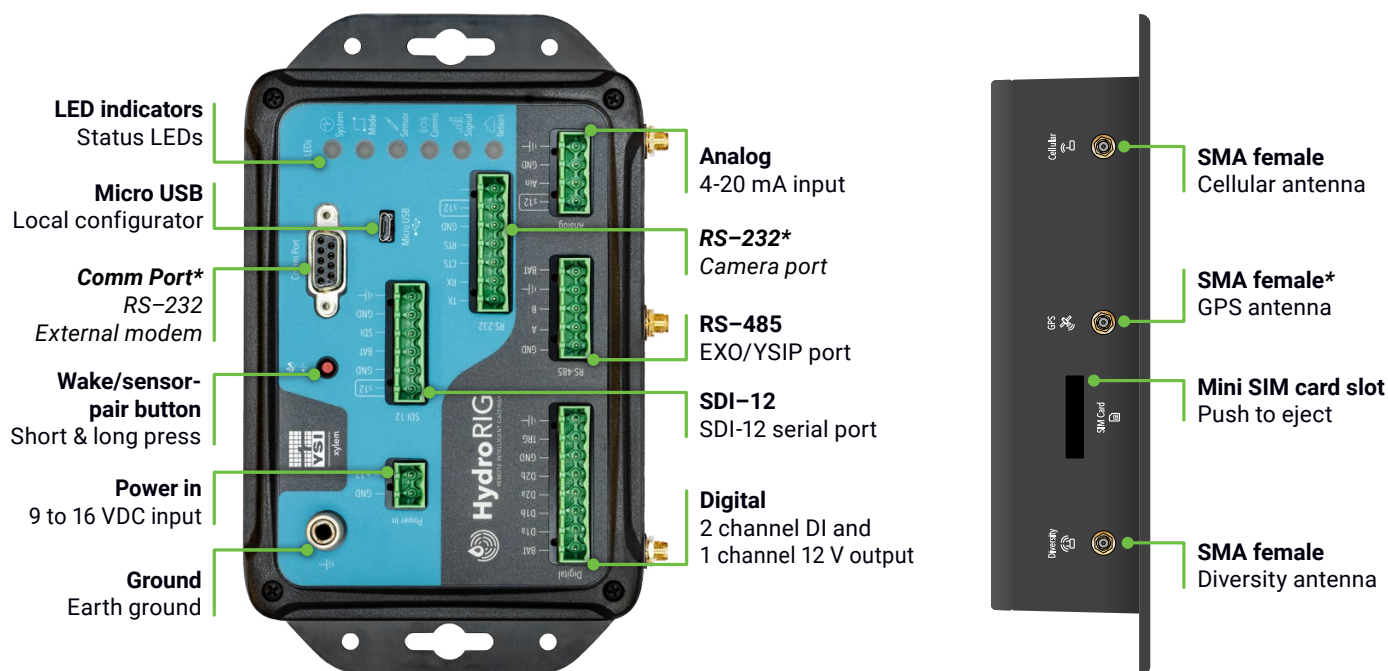
HydroSphere is a scalable collaborative data visualization platform for outdoor water monitoring. Empower your organization and all data stakeholders.

- **Tell your data's story** with customizable graphs, tables, and dashboards
- **Never miss an event** with data-driven alarms and customizable escalation
- **Define roles and access to your data** with personalized credentials for each user
- **Build networks** of monitoring sites
- **Create public websites** for the visualization of curated data



# Communication ports

**HydroRIG** is compatible with a wide variety of environmental sensors, so you can get all your data at once, from water quality, to meteorology, flow, level, and more.



## Connect your data to the cloud

**HydroRIG** streamlines data upload to HydroSphere, making it ideal for even the largest site networks.



\*The internal GPS, RS-232 port, and external Comm port functionalities are currently in development and will not be available at launch. Please visit [YSL.com/HydroRIG](http://YSL.com/HydroRIG) for the current list of features.



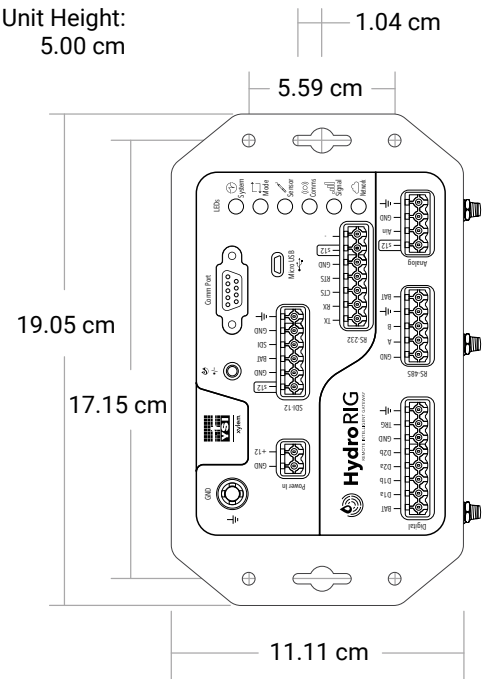
# Specifications

## Physical

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Housing dimensions | 19.05 x 11.13 x 4.45 cm (7.50 x 4.38 x 1.75 in) |
| Shipping weight    | 0.45 kg (1 lb)                                  |
| Housing material   | Plastic                                         |
| IP Rating          | IP 50-rated enclosure                           |
| Warranty           | 12 months                                       |

## Measurements

|                                      |                    |                                                              |
|--------------------------------------|--------------------|--------------------------------------------------------------|
| Analog input                         | Channel            | 1 analog input channel for a 4-20 mA device                  |
|                                      | Accuracy           | +/- 0.1% FS                                                  |
|                                      | Range              | 0 to 20 mA                                                   |
| Switched +12.0 volt excitation       | Type               | Regulated 12 V                                               |
|                                      | Current            | 1 A max load, protected by electronic fuse                   |
| Digital I/O                          | Channels           | 2 digital inputs, 1 digital output                           |
|                                      | Input levels       | 0 to 12 V<br>High = 7 to 16 V<br>Low = 0 to 3 V              |
|                                      | Output Levels      | Regulated 12 V, source 1 A max, protected by electronic fuse |
|                                      | Connector          | 8 pin header                                                 |
| SDI-12                               | Mode               | Ver 1.4                                                      |
|                                      | Connector          | 6-pin D connector, male                                      |
| RS-232*<br>(optional external modem) | Type               | Single RS-232 configured as a DTE device                     |
|                                      | Connector          | 9-pin D connector, male                                      |
|                                      | Baud rate          | Programmable                                                 |
| RS-232*<br>(camera port)             | Type               | Single RS-232 configured as a DTE device                     |
|                                      | Connector          | 7-pin D header, male                                         |
|                                      | Baud rate          | Programmable                                                 |
| RS-485                               | Type               | Single RS-485 port                                           |
|                                      | Connector          | 5-pin D header, male                                         |
| GNSS                                 | Compatible systems | GPS, GLONASS                                                 |
|                                      | Connector          | SMA - female                                                 |



## Communication

|                     |         |                 |
|---------------------|---------|-----------------|
| USB                 | Type    | Micro USB       |
|                     | Version | USB version 2.0 |
| Cellular modem      | Type    | CAT-1 or CAT-M1 |
| External satellite* | Type    | GOES, Iridium   |

## Power

|              |               |                         |
|--------------|---------------|-------------------------|
| Requirements | Voltage input | 9 VDC to 16 input       |
| Connection   | Connector     | 2-pin D connector, male |

## Memory

|         |                         |       |
|---------|-------------------------|-------|
| General | Data buffering capacity | 32 MB |
|---------|-------------------------|-------|

## Environmental

|             |           |                                 |
|-------------|-----------|---------------------------------|
| Temperature | Operating | -25 to 60 °C<br>(-13 to 140 °F) |
|             | Storage   | -25 to 60 °C<br>(-13 to 140 °F) |

\*The internal GPS, RS-232 port, and external Comm port functionalities are currently in development and will not be available at launch. Please visit [YSI.com/HydroRIG](http://YSI.com/HydroRIG) for the current list of features.



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