xylem

HydroRIG

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

YSI

xylem

HydroRIG
REMOTE INTELLIGENT GATEWAY

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
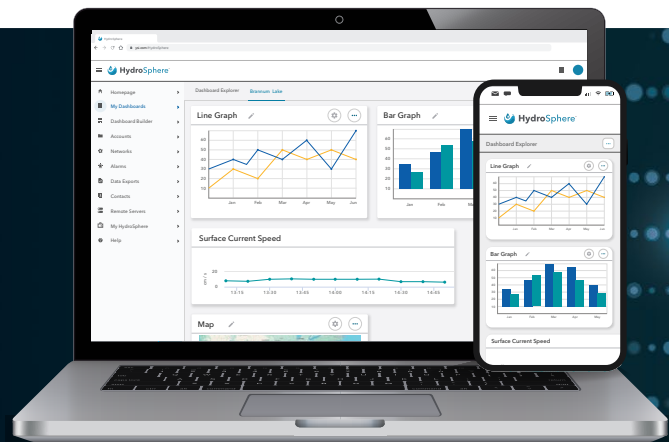
Small footprint, big impact
The small form factor allows HydroRIG to be easily integrated into most systems
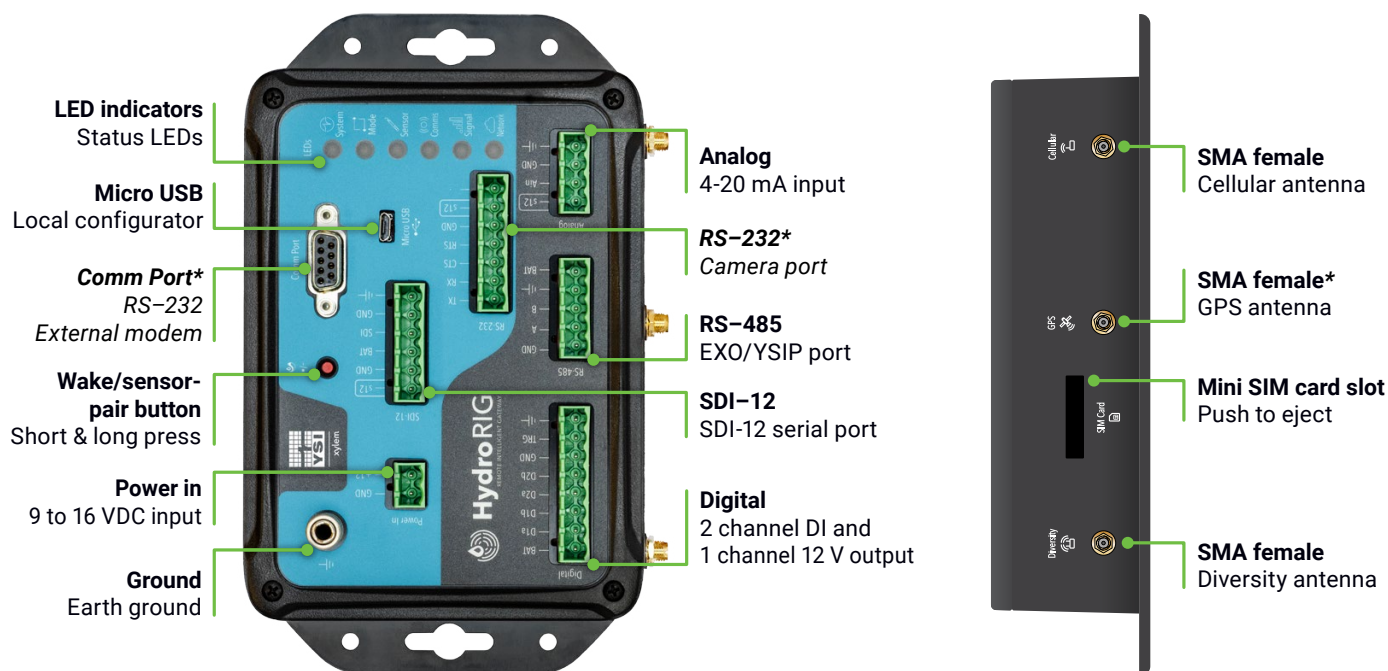
Benefits of HydroSphere

HydroSphere™

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.

LED indicators
Status LEDs

Micro USB
Local configurator

Comm Port*
*RS−232
External modem*

**Wake/sensor-
pair button**
Short & long press

Power in
9 to 16 VDC input

Ground
Earth ground

Analog
4-20 mA input

RS−232*
Camera port

RS−485
EXO/YSIP port

SDI−12
SDI-12 serial port

Digital
2 channel DI and
1 channel 12 V output

SMA female
Cellular antenna

SMA female*
GPS antenna

Mini SIM card slot
Push to eject

SMA female
Diversity antenna

Connect your data to the cloud

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

RS-485

SDI-12

Pulse/Digital

4-20 mA

External Modem*

GOES/
Iridium

Camera port*

HydroSphere

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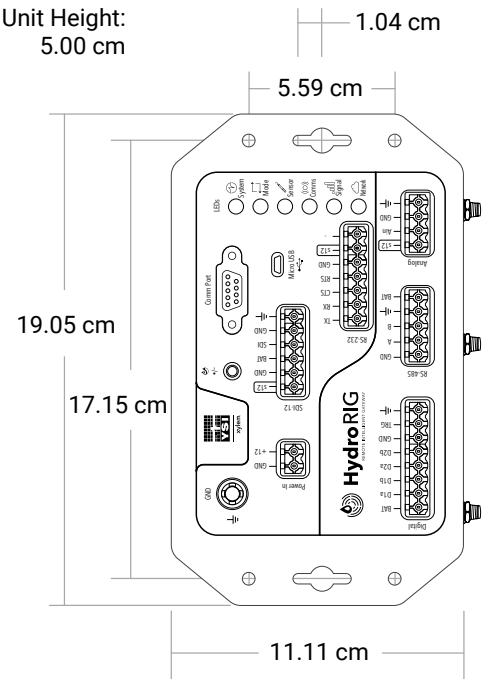*Please visit YSI.com/HydroRIG for the current list of features.*

Specifications

Physical

Housing dimensions	19.05 x 11.11 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	24 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 High = 7 to 16 V 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* (optional external modem)	Type	Single RS-232 configured as a DTE device
	Connector	9-pin D connector, male
	Baud rate	Programmable
RS-232* (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

Unit Height: 5.00 cm
1.04 cm
5.59 cm
19.05 cm
17.15 cm
11.11 cm

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 (-13 to 140 °F)
	Storage	-25 to 60 °C (-13 to 140 °F)

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Let's Solve Water