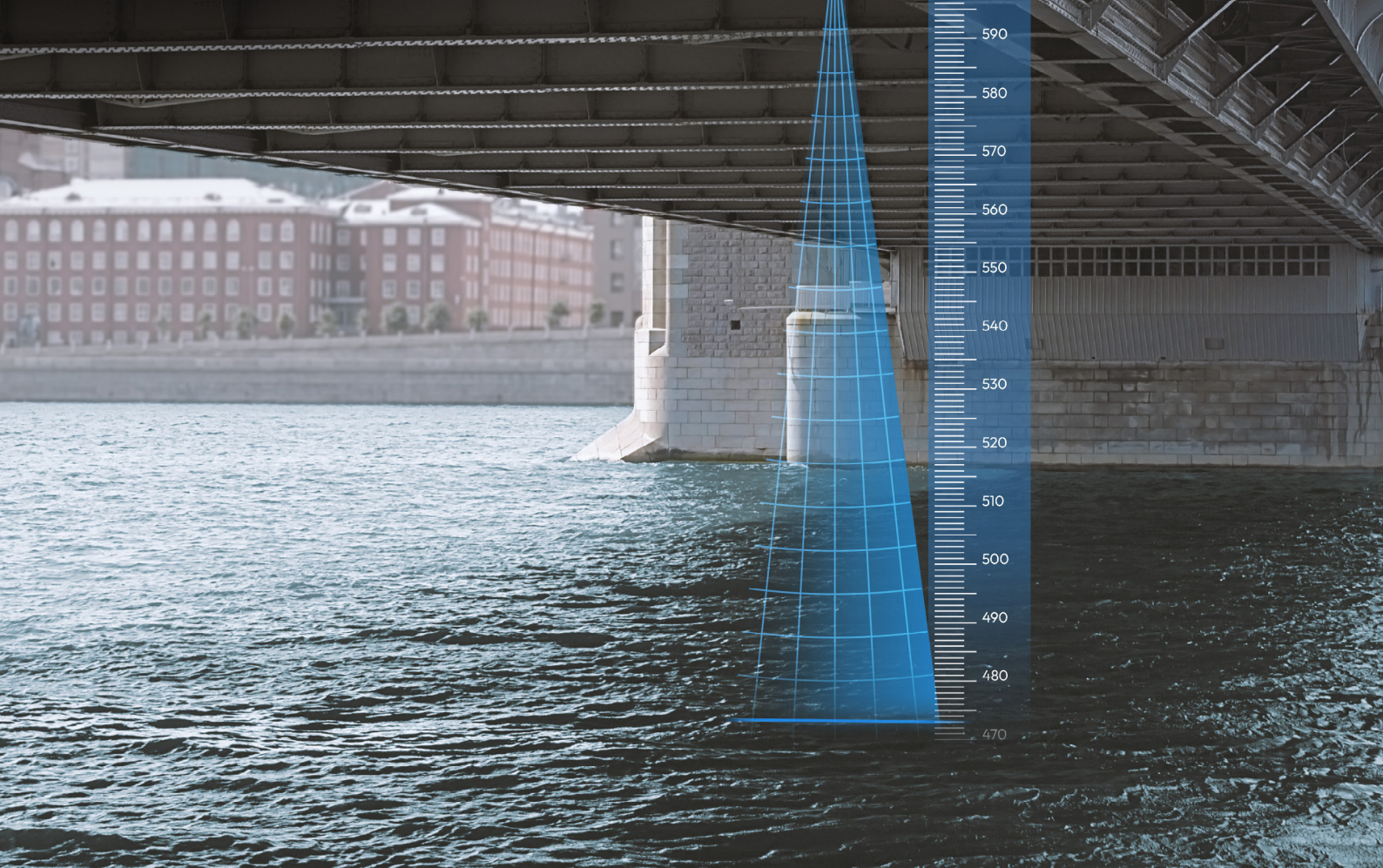




**K HyQuant L**

# Radar level Sensor

**Compact, affordable and easy-to-use water radar sensors for versatile hydrological monitoring.**



With over six decades of experience in environmental applications and a team of expert scientists and engineers specialising in hydrology and radar technology, KISTERS has carefully developed the HyQuant L sensor to be your first port of call for robust, accurate and field-proven solutions you can trust to save you time, energy and money in the long run.

This sensor effectively alleviates common issues encountered by users in environmental monitoring by offering essential system features at an affordable price point, presenting a cost-effective solution to industry challenges.

### **Best suited for professionals working on:**

- **Hydrology and water surface management** such as rivers, streams, open canals, channels (including irrigation), open flumes, lakes, reservoirs and inland waterways.
- **Risk management:** Early warning, flood forecasting, urban flooding, rain retention basins, water quality, maritime shipping, inland navigation, dam safety, water availability.
- **Agriculture:** irrigation, water allocation
- **Operational efficiency** in hydropower plants
- **Industrial applications** such as mining.
- **Research**

# Designed with versatile applications in mind.



## **Flood forecasting and early warning.**

Authorities monitor changes in water activity in real-time to identify potential flood risks. They implement mitigation measures, such as early warning and infrastructure planning, to enable communities to prepare and take timely action to protect lives and property.

## **Environmental balance.**

Water resources monitoring, which utilizes water level, velocity, and discharge data, offers insights into hydrological dynamics during specific events over time. This approach supports conservation efforts and enhances understanding of aquatic life, water quality, and ecosystem health.



## **Management and use of water resources.**

Essential societal needs, including drinking, irrigation, hydro-power, and cooling, often compete for water resources. Assessing actual water availability through parameters such as water level, surface flow velocity, and discharge is crucial. The collected data facilitates the integration of competing water uses, enabling informed decision-making, equitable resource access, enhanced revenues, cost reduction, and improved risk management.

### Linking quantity and quality.

Monitoring surface water flows and levels is vital for water quality, shaping river habitats and intervening the spread of pollutants. This understanding is key to protecting aquatic ecosystems and managing water resources effectively. By understanding and managing these aspects, we can better protect water resources and the ecosystems they support.



### Navigation and transport.

Assessing the flow and velocity of a river is crucial for monitoring and evaluating morphological changes in the river bed. Knowledge of these changes ensures safe navigation and shipping for larger vessels and cargo ships, especially during periods of low water.

### Engineering.

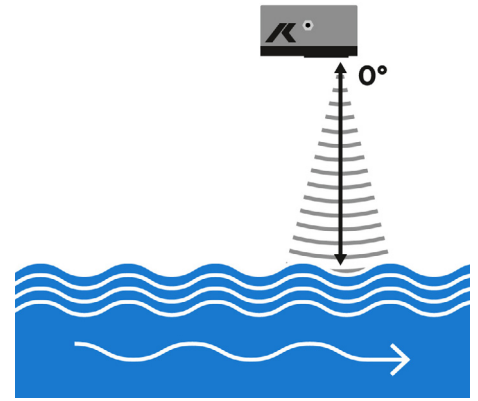
Engineers and infrastructure planners rely heavily on hydrological and hydraulic modeling for design purposes. They assess flow characteristics when designing bridges, culverts, dams and other river-related infrastructure. Key characteristics include stage, volume and velocity, especially under extreme weather conditions. The aim is to ensure that this infrastructure can withstand the forces and expected volumes of water. This approach helps to prevent flooding or structural damage.



### Research.

Scientists, researchers, hydrologists and climatologists use water level and velocity data to study climate patterns, environmental change and river behavior, contributing to a better understanding of natural processes.

# Exceptional benefits in level monitoring.



## Savings all the way long.

**Exceptional value at an attractive price:** HyQuant L is one of the few water level radars with built-in Wi-Fi connectivity, SDI-12 and Modbus, a 32.80 ft cable and mounting bracket at no extra cost.

**Easy and affordable installation:** the sensor's lightweight and small footprint, integrated tilt/swivel mount and gyroscope for correct positioning provide compatibility with a variety of support structures, saving customers time.

**Stable operation with fewer service visits:** low power and maintenance requirements make it ideal for solar powered sites.



## Meeting all the criteria for environmental users.

**Specially designed and proven for use in the field, where particular conditions require:**

- IP68 housing protects against dust, water and shock.
- High power efficiency: 15 mA (typ. at 12V) only achieved by a few level radars.
- Special built-in filter algorithms for local adaptation
- Virtually maintenance-free
- Modbus and SDI-12 for easy integration
- Compact and lightweight design for reduced susceptibility to damage and vandalism.



## Versatile powerhouse.

**Stable  $\leq 2$  mm accuracy:** over the entire measurement range and varying user-selected distances from 0.32 to 164.04 ft.

**From narrow to wide water bodies in remote and urban areas:** temperature regulated, easy to use filters,  $8^\circ \times 8^\circ$  beam angle and stage point setting for flexible configuration to obtain real water level data.

**Only found in a few water level radars:** based on the FMCW measurement principle which has special advantages.



**Hassle-free  
configuration without  
user manuals.**

**User-friendly interface** with intelligent algorithms, visual and mouse control and automatic firmware updates, eliminating the need for expert manual tuning.



**Global and  
local support.**

**KISTERS is your reliable partner wherever you are:** Access to world-class support from KISTERS specialists around the globe and **direct sales and support in the USA**, local certification and multi-lingual support.

## **K HyQuant L**

One of the most versatile and reliable non-contact level sensor.

Two measurement ranges available:



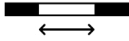














— HyQuant L20:  
0.32 to 65.61 ft

— HyQuant L50:  
0.49 to 164.04 ft

**Expertly designed and reliable, noncontact radar level sensor with stable accuracy across various ranges, versatile beam angle and one of the highest power efficiencies available.**



## Technical specifications.

HyQuant L					
 <b>60 GHz</b> V-Frequency Band	 FMCW Level Radar	 0.32 ... 65.61 ft and 0.49... 164.04 ft Ranges	 ≤2 mm/≤0.07 in Accuracy	 1 mm/0.035 in Resolution	 8° x 8° Beam angle
 Auto-correction filters	 *PC typ. < 15 mA, peak < 80 mA	 Output rate	 Imperial and Metric units	 10 to 30 VDC	 SDI-12, Modbus, Wi-Fi
 -40 ... 176 °F	<b>IP68</b> Rated	 <b>CE, FCC Class B, UL, RoHS</b> Compliance	 Mounting bracket, 32.80 ft cable and torx key	 6.29 x 3.81 x 3.58 in	 2.53 lb.

\*PC: power consumption

## Enjoy the benefits of non-contact radar technology.



Impervious to environmental conditions and external influences typically affecting contact technologies.



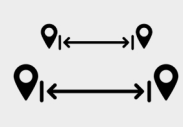
Measures up to the sensor face, even in flooded conditions.



Immune to dirt and debris, reducing maintenance.



The sensors can be concealed to prevent vandalism.



Enhanced signal propagation improves accuracy across different distances.

Reseller

KISTERS North America | sales-hsa@kisters.net | kisters.net

**KISTERS**