

Water Level Radar Sensor

Water Level/Stage | Hydrology

General Description

HyQuant L, KISTERS' state-of-the-art non-contact water level radar sensor, operates on a 60 GHz V-Band FMCW* radar technology. It offers superior resolution and accuracy, with reduced power consumption, all at an appealing price point.

Compact design

The sensor's exceptional compactness ensures effortless and swift installations. Its discrete design further deters vandalism and enables flexible and easy installations in various support structures such as bridges and booms located in narrow and wide water bodies, urban and remote applications.

Measurement ranges

Designed for hydrological applications, the sensor is available in two ranges:

- **HyQuant L20:**
0.10 ... 20 m (0.32 ... 65.61 ft)
- **HyQuant L50:**
0.15 ... 50 m (0.49 ... 164.04 ft)

Optional upgradability to L+V or Q

Upgrade to the level and velocity radar HyQuant L+V or to the discharge radar sensor HyQuant Q, without uninstalling or returning the instrument, purchasing additional sensors and/or adapting the housing.

This radar system seamlessly adapts to varied monitoring environments, thanks to adjustable filter settings easily customizable via an intuitive wizard-driven interface.

HyQuant L gives customers access to non-contact technology without requiring radar expertise or compromising on size, features or performance.

Applications

- Hydrology: rivers, streams, open channels/canals, inland waterways, tide influenced
- Risk management: flood warning and forecasting, urban flooding
- Irrigation: open channels, irrigation management
- Industrial applications: hydropower, mining, brownfields
- Climate change studies

Features

- Convenient configuration with stage point setting for real water level data
- Data interfaces: SDI-12 or Modbus
- Configuration via Wi-Fi: using KISTERS' free HyComm software with automatic firmware updates or SDI-12 or Modbus with a PC adapter or data logger
- Nearly no blanking distance: measures up to the housing cover
- Low power operation
- Effortless maintenance
- Readings in either metric or imperial units
- 10 m (32.80 ft) cable, torx key, and a 360° adjustable rotation mounting bracket included
- Simple set-up process via Quick Installation Guide



*FMCW: Frequency Modulated Continuous Wave

Technical Specifications

Radar type/Frequency band	FMCW* 60 GHz V-Band radar level sensor	
Measurement range	HyQuant L20: 0.1 ... 20 m (0.32 ... 65.61 ft)	HyQuant L50: 0.15 ... 50 m (0.49 ... 164.04 ft)
Output rate	1 Hz (1 measurement/second)	
Accuracy	<=2 mm (<= 0.07 in)	
Resolution	1 mm (0.039 in)	
Supply voltage (range)	10 ... 30 VDC	
Power consumption at 12V	Typical ~15 mA; Wi-Fi activated: ~90 mA (incl. optional upgrade to HyQuant Q)	
Beam angle	8° x 8° (azimuth by elevation)	
Ingress protection	IP68	
Communication and interfaces	SDI-12, Modbus, Wi-Fi	
Operating temperature range	-40 ... +80 °C (-40 ... 176 °F)	
Humidity range	0 ... 100 % non-condensing RH	
Dimensions and weight	HyQuant sensor with backplate: LxWxH: 160 x 97 x 91 mm, 1.15 kg (6.29 x 3.81 x 3.58 in, 2.53 lb) Packaged dimensions: LxWxH: 300 x 300 x 187 mm, 2.5 kg (11.81 x 11.81 x 7.36 in, 5.51 lb)	
Signal connector	M12 8-pin	
Materials	Housing: powder-coated aluminium; cover/radome: HDPE	
Compliance	CE, FCC Class B, UL, RoHS, further information available on our website	

Accessories

HyComm configuration software: Sensor configuration via Wi-Fi/SDI-12/Modbus, choice between wizard and direct configuration modes, real-time sensor readings and colour-coded positioning help, automatic sensor firmware updates, etc.

iRIS 270 and UnderCover Pro: KISTERS brand data loggers with SDI-12 interface

Optional pole-mount bracket: for pole diameters ranging from 20 mm (3/4") to 60 mm (2").

Adapters: SDI-12 to USB and Modbus to USB

Tailor-made arm/boom structure(s)

[Please ask for details.](#)



Reseller

KISTERS Europe | hydromet.sales@kisters.eu | kisters.eu

KISTERS Australia | sales@kisters.com.au | kisters.com.au

KISTERS Latino América | sales@kisters-latam.com | kisters.es

KISTERS New Zealand | sales@kisters.co.nz | kisters.co.nz

KISTERS North America | kna@kisters.net | kisters.net

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