# UMDR-H 

## Universal River Velocity Radar(Hydrology)




River Surface Velocity Radar utilizes microwave continuous wave radar technology to measure river surface velocity in a non-contact way. It can be widely used for measuring water surface velocity in various rivers, channels, and reservoirs, providing real-time monitoring data of water flow velocity. The measurement range of this product is 0.5 M to 100 M , with built-in automatic correction values for leveling instrument and compensation for the angle of inclination, high gain narrow beam angle antenna, and low noise high-speed digital signal processing, ensuring high accuracy. It can be powered by a solar panel system and can be transmitted to a remote monitoring platform through wired or wireless communication for analysis and integration of multiple velocity meters, improving flood warning and water resource management efficiency.


Radar and Solar Panel Schematic Diagram


Surface Velocity Detection Schematic Diagram

## Radar System Operation Process:



Application of product performance (partial cooperation cases):


Kameyama \& Jiajiuliao Flow detection


Pingtung Sandimen Bridge


Miaoli Keshu Bridge

## Product Information

## Product name

Application scope
Antenna beam width
Measurement distance range
Flow velocity measurement range
Flow velocity measurement resolution
Flow velocity measurement accuracy
Transmission rate
Data output format
Waterproof specification
Dimensions
Communication interface
Environmental adaptability
Regulatory certification

## UMDR-H

Velocity measurement in a wide range of waters

## $5.5^{\circ} \times 11^{\circ}$ (Customization)

$0.5 \mathrm{~m} \sim 100 \mathrm{~m}$
$0.2 \mathrm{~m} / \mathrm{s} \sim 30 \mathrm{~m} / \mathrm{s}$
$0.01 \mathrm{~m} / \mathrm{s}$
$\pm 8 \%$ in $0.2 \sim 5.0 \mathrm{~m} / \mathrm{s} ; \pm 3 \%$ in $5.0 \sim 30 \mathrm{~m} / \mathrm{s}$
4800bps
MODBUS
IP-67
$213 \times 253 \times 124 \mathrm{~mm}$
RS-232 / RS-485 / 4~20mA
Operating temperature $-35^{\circ} \mathrm{C} \sim+60^{\circ} \mathrm{C} ; 0 \sim 95 \% \mathrm{RH}$ NCC ; ISO-9001

