TECHNOLOGY

HOLYKELL®

# HRF600S

# FLOWMETER

## •DATASHEET•

1. Pressure Measurement 2. Level Measurement 3. Temperature Measurement

4. Flow Measurement 5. Display & Control Instruments

6.Wireless Monitoring System 7.Velocity Measurement

# HRF600S Series Radar Wave Flow Meter

## Product Profile

HRF600S is a small radar flowmeter dedicated to flow monitoring of open channels in irrigation areas and underground pipe networks. The water velocity and water level are measured by microwave technology, and flow and cumulative flow at cross-sections are converted according to the built-in software model and algorithm.

24GHz and 80GHz microwaves are used to measure velocity and water level respectively. The measurement is not affected by ambient temperature, air pressure, water vapor on water surface, water pollutants and sediments. It features small size and low power consumption, especially suitable for applications with solar power and batteries group power supply and others with demanding power consumption.

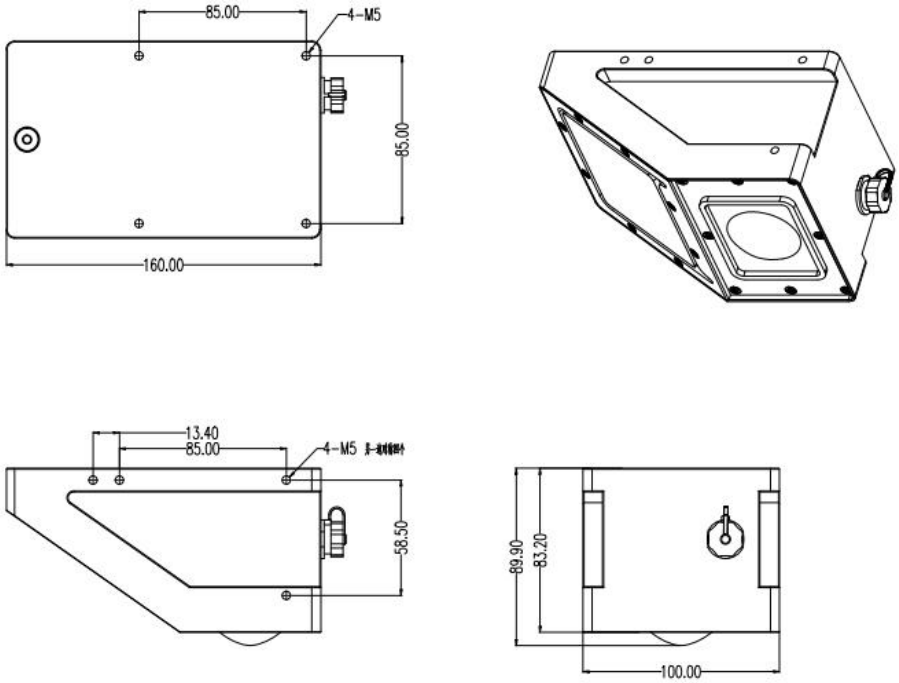
## Features

1. Adopt non-contact measurement, combined with cross-section parameters to calculate the flow rate, not affected by wind, temperature, haze, sediment, floating objects, etc. With a rainproof mode;
2. Suitable for a variety of measurement conditions, and measurement data of velocity, water level, and flow rate can be output;
3. Low power consumption, solar or battery power supply supported, easy to install and low maintenance;
4. Applicable to multiple cross-sections such as trapezoid, round, U-shaped, etc.; the parameter setting method of the cross-section is simple and convenient;
5. Software can be configured, the parameters can be configured according to actual needs to adapt to different conditions of use.

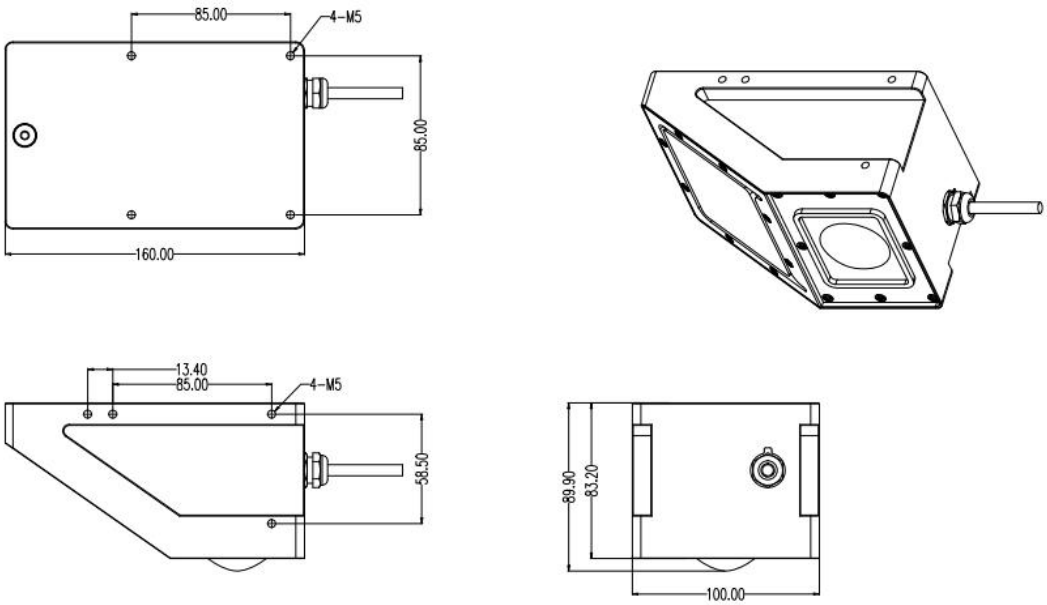
## Applications

1. Velocity/ water level/flow measurement of open channels, irrigation canals, underground pipe networks, etc.
2. Auxiliary water treatment, such as urban water supply, sewage outlet monitoring, etc.
3. Flow calculation, water inlet and drainage flow monitoring, etc.

## Dimensions




Plastic joint version. Unit, mm




Direct outlet version. Unit, mm

## Specifications

| Item | HRF600S/HRF600S-R |
|---|---|
| Versions | HRF600s(Standard version)<br>HRF600s-R(RTU version): Support parameter adjustment by Bluetooth; wireless configuration and maintenance by mobile phone; equipment remote upgrade |
| **Velocity Measurement System** | |
| Measuring Principle | Planar microstrip array antenna CW+FMCW |
| Operating Mode | Automatic, telemetry |
| Applicable environment | 24-hour, rainy days |
| Operating temperature | -35 to +70°C |
| Operating Voltage | 7~32 V DC |
| Working current | 12 V DC input, working mode: ≤35 mA standby mode: ≤1 mA |
| Lightning protection | 6KV |
| IP Rating | IP68 |
| **Radar Wave Velocity Meter** | |
| Radar frequency | 24GHz |
| Max measuring range | 40m |
| Velocity range | 0.03~20m/s |
| Velocity measurement accuracy | ±0.01m/s;±2%F.S |
| Antenna angle | 12° |
| Measuring direction | Automatic recognition of water flow direction, built-in vertical angle correction |
| **Radar Water Level Sensor** | |
| Radar frequency | 80GHz |
| Measuring range | 7 meters |
| Measurement accuracy | ±2 mm,±0.05%FS |
| Antenna angle | 8° |
| **Data transmission system** | |
| Data transmission | RS485(acquiesce), RS232(assorting), 4~20mA(assorting), MODBUS(agreement) |



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