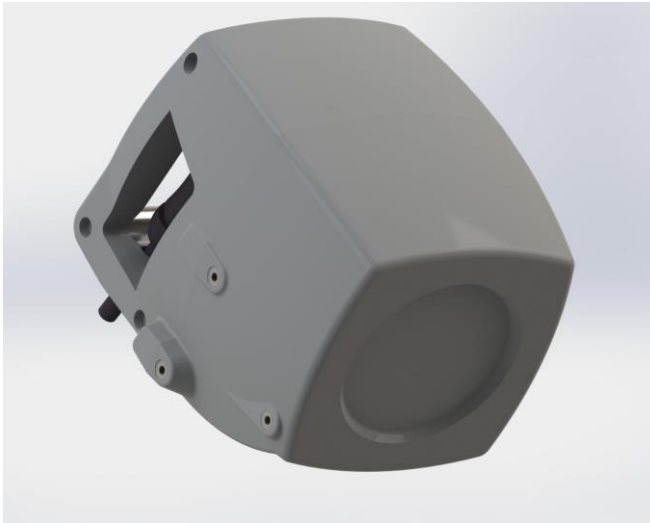


PHOENIX

Open Channel Non-Contact Radar Flow Meter For Rivers



The PHOENIX is the new non-contact RADAR area/velocity flow meter specially designed for rivers or large irrigation channels. Elaborated opening angle of 32° allows the radar to see a full spectrum of velocities over the river or channel width.

The PHOENIX provides highly accurate flow measurements under a wide range of flow and site conditions.

The PHOENIX is featured with the wellknown **auto-diagnostic system** introduced by Flow-Tronic on the RAVENEYE. Internal sensors monitor and report the condition or "health" of the measuring system.

Flow Measurement Method

- Conversion from surface velocity measurement to average velocity based on profiler measurement (For rivers: ADCP or current meter).
- Possibility to base conversion on models.
- Conversion of water level and profile size to fluid area.
- Multiplication of fluid area by average velocity to obtain the flow rate.

*: 3 mm necessary minimum water wave height

Specifications are subject to change without notice
Updated: May 2017



www.flow-tronic.com

Technical Specifications

The PHOENIX is a universal non-contact level/velocity flow sensor that can be connected to the RTQ flow logger series or the IFQ MONITOR™. Optionally it can also be connected to any device using the Modbus ASCII communication protocol.

Velocity Measurement

| | |
|-------------------|---|
| Method | Radar |
| Type | Continuous Wave Doppler |
| Range | ±0,10 to ±15 m/s (depending on flow conditions*) (bi-directional / flow direction detection) |
| Frequency | 24,125 GHz (K-Band) |
| Accuracy | ±1% |
| Resolution | 1 mm |
| Distance to water | 0,50 ... 35 m |

Radar Opening Angle

| | |
|--------------------|-----|
| Opening angle | 32° |
| Installation angle | 60° |

Power

| | |
|-------------|------------------------------------|
| Supply | 4 to 26 VDC |
| Consumption | 1,38 W (during active measurement) |

Level Measurement (Radar)

| | |
|-----------------|--|
| Method | Radar |
| Range | 0,01 to 15 m (standard range) 0,01 to 35 m (extended range) |
| Accuracy | ±2 mm of reading |
| Resolution | 1 mm |
| Operation temp. | -40 ... +70 °C |
| Frequency | 26 GHz (K-Band) |

Optional Separate Level Measurement

| | |
|---------|---------------------------------|
| Method: | Any 4-20 mA loop powered sensor |
|---------|---------------------------------|

Communication

RS-485 communications port with Modbus ASCII slave communication protocol

Outputs (optional)

| | |
|---------|--|
| 4-20 mA | 1 for validated surface velocity (vQP) or validated surface velocity including median filter (vQPMF) |
|---------|--|

Material & Dimensions

| | |
|------------|--------------------------------|
| Dimensions | 166 mm H x 157 mm W x 178 mm L |
| Weight | 2,60 kg |
| Material | Robust PU |
| Protection | IP68 |
| Color | Grey |

Environmental Conditions

| | |
|-----------------------------|---------------|
| Operating temperature range | -30° to 70° C |
| Storage temperature range | -40° to 80° C |

Certifications

CE

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