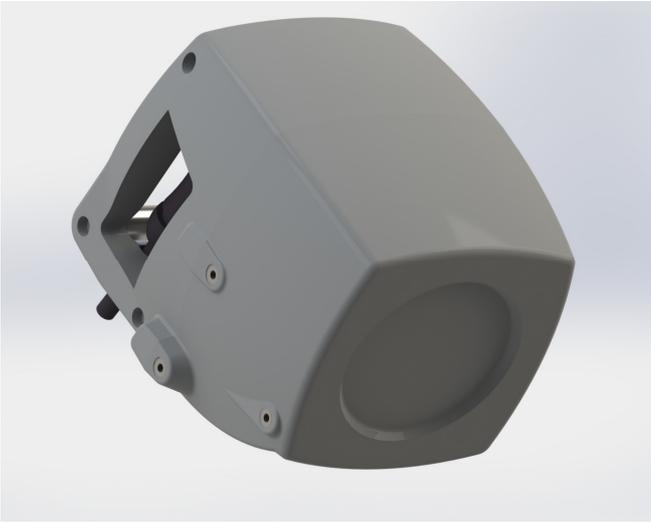


PHOENIX

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 well-known **auto-diagnostic system** introduced by Flow-Tronic on the RAVEN-EYE. 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
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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)
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Material & Dimensions

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

Environmental Conditions

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

Certifications

CE

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