

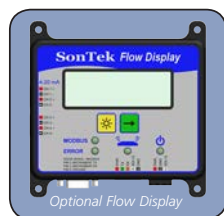


SonTek-IQ™

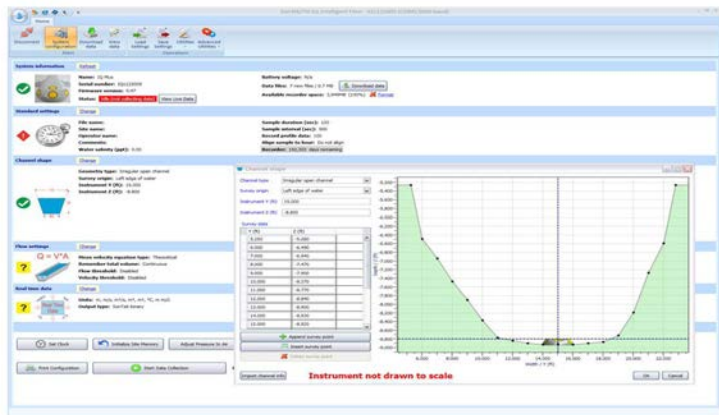
Developed with assistance from the Cooperative State Research, Education, and Extension Service of the U.S. Department of Agriculture*, the SonTek-IQ starts with a custom flow algorithm derived from

hundreds of field measurements. The four velocity beams profile water velocity both vertically and horizontally ensuring complete coverage of the velocity field. The built-in pressure sensor and vertical acoustic beam work in tandem to measure the water level. Simply input the channel geometry using the intuitive SonTek-IQ software and you are outputting flow data in minutes.

Easy Installation: User friendly mounting brackets allow for the SonTek-IQ to be installed by simply inserting two bolts 12.7 cm (5 in) apart along the center line of the channel. The orientation of the slots on the mounting plate to allow users to orient the instrument in the direction of flow. Ultra-low power consumption allows for smaller solar panels and batteries – making monitoring less conspicuous.



Simple Integration: Stand alone monitoring? Use a Datalogger? How about an RTU? The SonTek-IQ supports communications via RS232, SDI-12 and Modbus. Simply connect your SonTek-IQ and program your datalogger and you are ready to collect data – no clumsy converters – makes integrating the SonTek-IQ fast and simple. The SonTek Flow Display, with options for 4-20 mA outputs, integrates to everyday workflow, simply connect to the SonTek-IQ and read flow read data in the field without connecting to a laptop.



Example screen shot of the SonTek-IQ SmartPage

- Self contained all-in-one design
- Proprietary flow algorithms for small irrigation canals
- Uses SonTek's exclusive SmartPulse^{HD} adaptive sampling
- Self-calibrating water level using vertical beam and pressure
- Standard package includes, SonTek-IQ Software, easy mounting hardware, cable, adaptor and power supply



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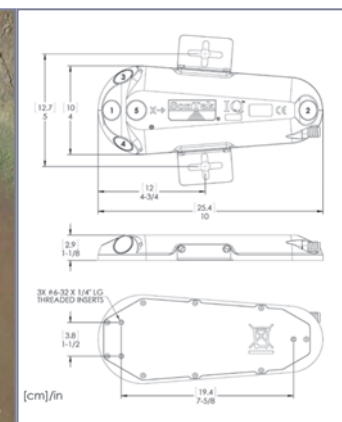
SPECIFICATIONS



	SonTek-IQ PLUS	SonTek-IQ
Velocity Measurement		
-Sampling Range ¹	0.08 – 5.0 m (0.3 - 16 ft)	0.08 – 1.5 m (0.3 - 5 ft)
-Number of Cells	Up to 100	1
-Cell Size	2 cm – 10 cm (0.8 - 4 in)	Dynamic integrated cell
Vertical Beam Range	0.05 - 5.0 m (0.2 - 16 ft)	0.05 – 1.5 m (0.2 - 5 ft)
Advanced Data Reprocessing	✓	N/A
Increased Number of Data Fields	✓	N/A

Velocity Measurement	
-Velocity Range	±5 m/s (16 ft/s)
-Resolution	0.0001 m/s (0.0003 ft/s)
-Accuracy	±1% of measured velocity, ±0.5 cm/s (0.2 in/s)
Water Level	
-Pressure Sensor Range	10 m (33 ft)
-Pressure Sensor Accuracy	0.1% of full scale
-Water Level Accuracy	0.1% of measured depth or ±0.003 m whichever is greater (0.01 ft)
Power	
-Input	8-15 VDC
-Consumption ²	0.5 – 1.0 W (0.02 when idle)
Acoustics	
-Acoustic Frequency	3.0 MHz
-(2) Along Axis Beams	25° off vertical axis, along axis of channel
-(2) Skew Beams ³	60° off vertical and 60° off center axis of channel
Communications	RS232, SDI-12, Modbus
Data Storage⁴	4 GB (approximately 1 year)
Operating/Storage Temperature	-5 to 60° C (23 - 140° F)
Temperature Sensor	✓
Tilt Sensor	✓

1 Reference from the bottom of the instrument, actual performance depends on environmental conditions
 2 Depends on sample duration and sample interval, a typical deployment an sample duration of 2 minutes with a 15 minute sample interval consumes approximately 0.1 W on average.
 3 Depending on site conditions, the skew beams allow for horizontal velocity profiling 3 times the measured depth.
 4 Exact duration of data storage depends on instrument deployment; time estimate presented here is based on a typical deployment.



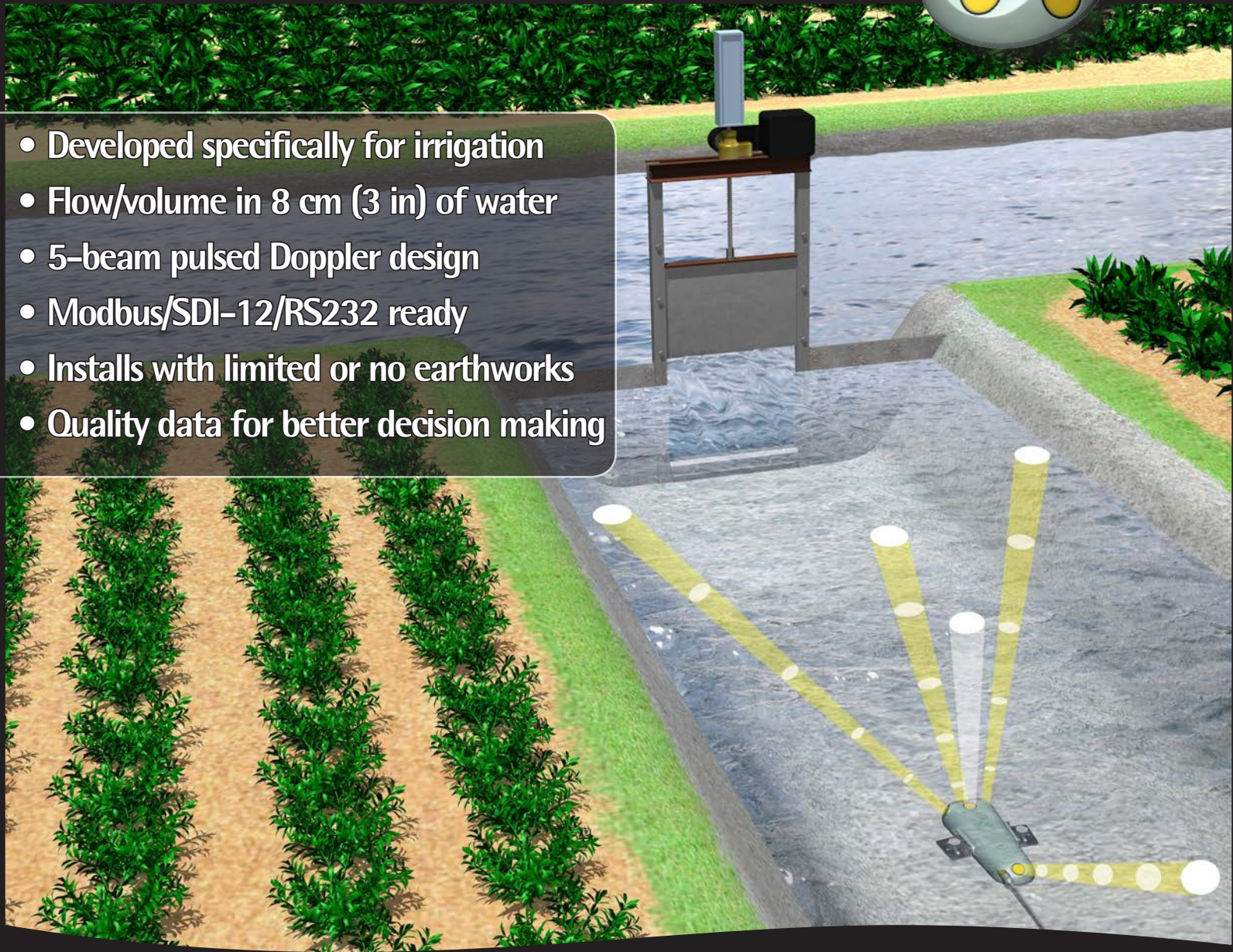
S O N T E K

SonTek-IQTM

Volume • Flow • Level • Velocity



- Developed specifically for irrigation
- Flow/volume in 8 cm (3 in) of water
- 5-beam pulsed Doppler design
- Modbus/SDI-12/RS232 ready
- Installs with limited or no earthworks
- Quality data for better decision making



SonTek

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Easy Set-up and Installation!

sontek.com/iq