Non-Contact Open Channel Flow Measurement System

This is a non-contact flow meter for open water channels mounted above the water surface. It uses a radar velocity sensor and an ultrasonic sensor for water level measurement. The two measurements and the dimensions of the cross section profile are used to calculate the discharge from the continuity equation (velocity- area method). The modular transmitter incorporates a flow computer with all required algorithms and software to ensure accuracy and repeatability of flow measurements. Parameterization of the measurement site, data logging, visualisation and data transfer is possible by using the browser based control and management user interface, which can be run in any standard web browser via PC, notebook, tablet or smart phone, regardless of location, time and operating system. The transmitter can be mounted in a distance up to 100 m from the measuring site with the velocity and level sensors

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Transmitter Specification

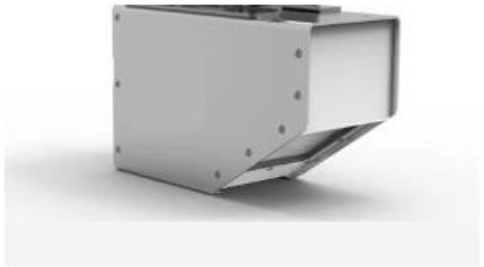
• Display: LC-Display, 2 lines, 16 characters
• Keyboard: 8 keys
• Communication: RS-485, WLAN GPRS, Ethernet 10/100 Mbps MODBUS
• Data logger / memory: 2 GB Micro SD card
• Power Supply: 85 -260 VAC (50-60 Hz) or
• 9-36 VDC
• Inputs: max. 4 x 4 - 20 mA analog input channels
• 2x digital
• Outputs: max. 4 x 4-20 mA analog output channels
• 2x Relay, 2x digital
• Operating temperature: -20°C to +70°C
• IP Classification: IP 65 EN 60529 (NEMA 4)

Non-Contact Radar Velocity Sensor Specification

• Measuring principle: Bidirectional microwave velocity measurement
• Frequency (radar): 24 GHz
• Beamwidth: 11° at -3dB
• Range: ± 0.05 m/s to ± 15.0 m/s
• Resolution: 1 mm/s, min. wave height 3 mm
• Accuracy (Q): < ± 0.5% of mean velocity reading
• Min. distance sensor/fluid: 0.3 m
• Max. distance sensor/fluid: up to 30 m
• Inclination: none
• Operating temperature: -20°C to +60°C
• Power supply: 16 VDC
• Power consumption: max. 200 mA
• Protection class: IP 68 (NEMA 6P)

Mounting Mast & Solar Panel

• Mast: Steel Mast with sensor brackets.
• Solar Panel: Output Voltage: 12 Volt DC, Wattage: 40 Watt (as per system power requirement)



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INSTRUMEX

Radar based Water Level Sensor Specifications

• Output:	4-20mA/HART
• Signal resolution:	0.3uA
• Damping:	0…999 secs
• Max Measuring Range:	User Specified
• Measuring range:	0 - 15 / 35 meter
• Accuracy:	± 2 mm
• Resolution:	1 mm
• Measuring principle:	pulse runtime procedure
• Current consumption:	22.4 mA
• Radiation angle:	10°
• Sensor protection:	horn antenna (75 mm Ø)
• Operating Temperature:	-40 to +85°C

An arrangement of One Post-paid GPRS-Active GSM SIM Cards is in your work of scope. There should be Network Coverage Availability at the installation site. For Data Access Free Web-space will be provided for 1year & will be chargeable afterwards.

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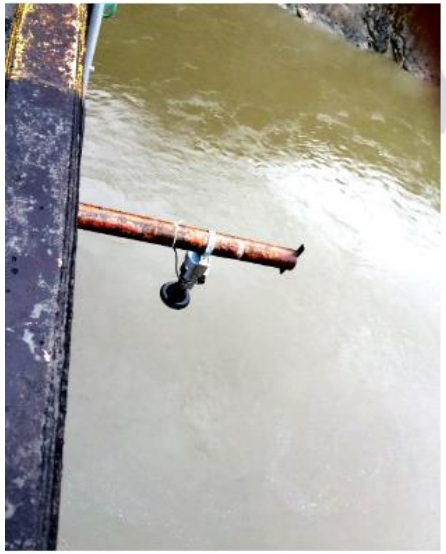

DUQE Square Business Centre, Quarter Deck, Queen Elizabeth 2, Mina Rashid, Dubai (United Arab Emirates)

Tel. +971-525829733

E-mail: sales@instrumex.ae

Represented by

**Drawing/specifications are subjected to change at any time without prior notice as per manufacturing suitability.