Data Sheet

Sultan Liquid- Acoustic Wave Technology

Liquids level and position measurements to 10m (33ft)



Principle of Operations

The Sultan Liquid series emits a high powered acoustic wave transmit pulse which is reflected from the surface of the liquid to be measured. The reflected signal is processed using specially developed software to enhance the correct signal and reject false or spurious echoes. Due to the high powered emitted pulse, any losses have a far less effect than traditional ultrasonic devices.

Primary Areas of Applications

The Sultan Liquid specializes in liquid level & water/sewage monitoring applications including:

- Inlet screens
- Sumps
- Pump stations
- Water towers
- Dam level
- Chemicals
- Sewers

And any other application where constant liquid level monitoring is required.

Supply

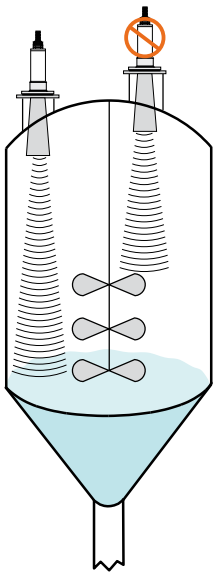
2 Wire Loop Powered

Features:

- Non contact measurement.
- Low installation costs.
- High Power & Signal Clarity
- Low cost per point.
- Wide range of communications: HART, GosHawk, Modbus
- Pump Control.
- Auto compensation Dust, steam.
- Impact resistant.
- IP67, NEMA 4x.
- Programmable fail safe mode.
- GSM/CMDA remote setup options/config.

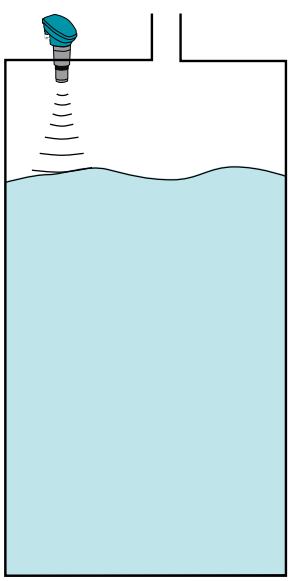
Typical Applications

Conical Shape Vessels



Storage Tanks

High/Low/Continous level
(Liquid/Chemical)



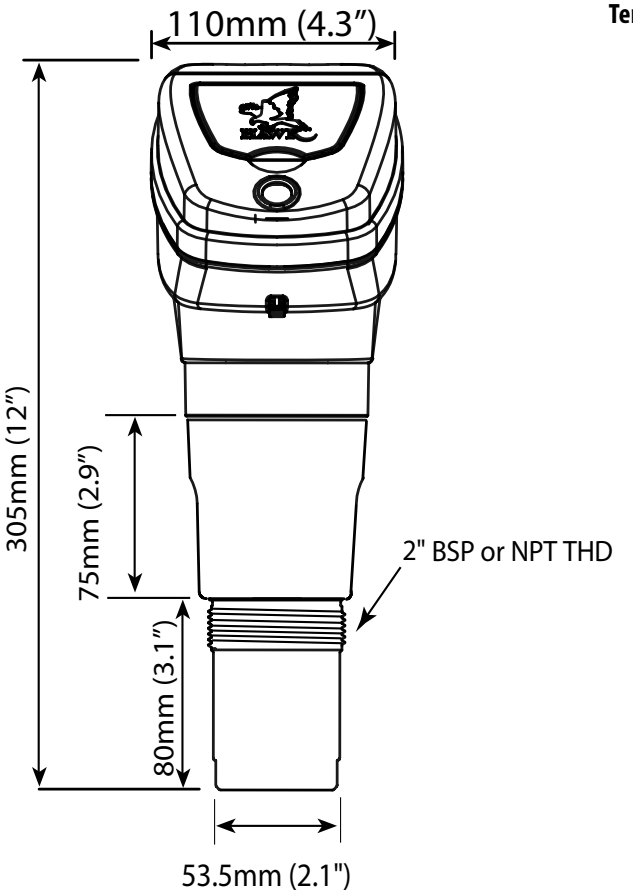
Chemical Storage



Tanks



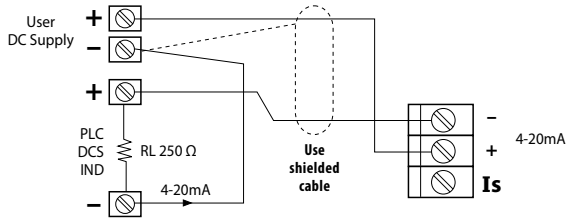
Dimensions



Wiring

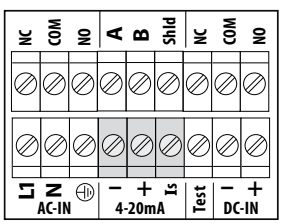
Terminal Connections for DC Supply – Model dependant

a) 2 Wire DC Loop Powered



Note: RL Max = 600Ω
if user DC Supply 24V

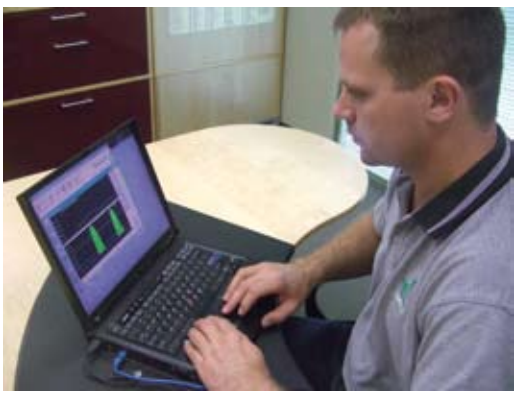
AW Series Transmitter
Integral Version (2 Relays)



GSM/CDMA Communication

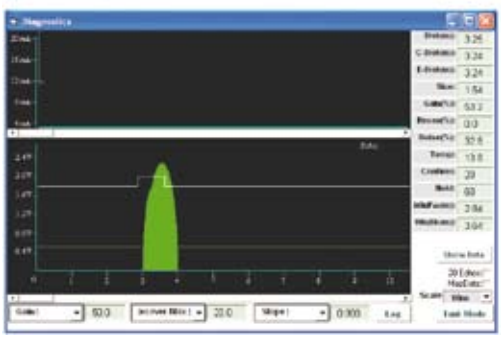
HawkLink GSM/CDMA communication device allows any authorized computer with a standard modem and GosHawk software to dial in and calibrate, test or check on the performance of the connected Hawk product. The HawkLink device can be wired to the standard communication terminals of the Hawk products.

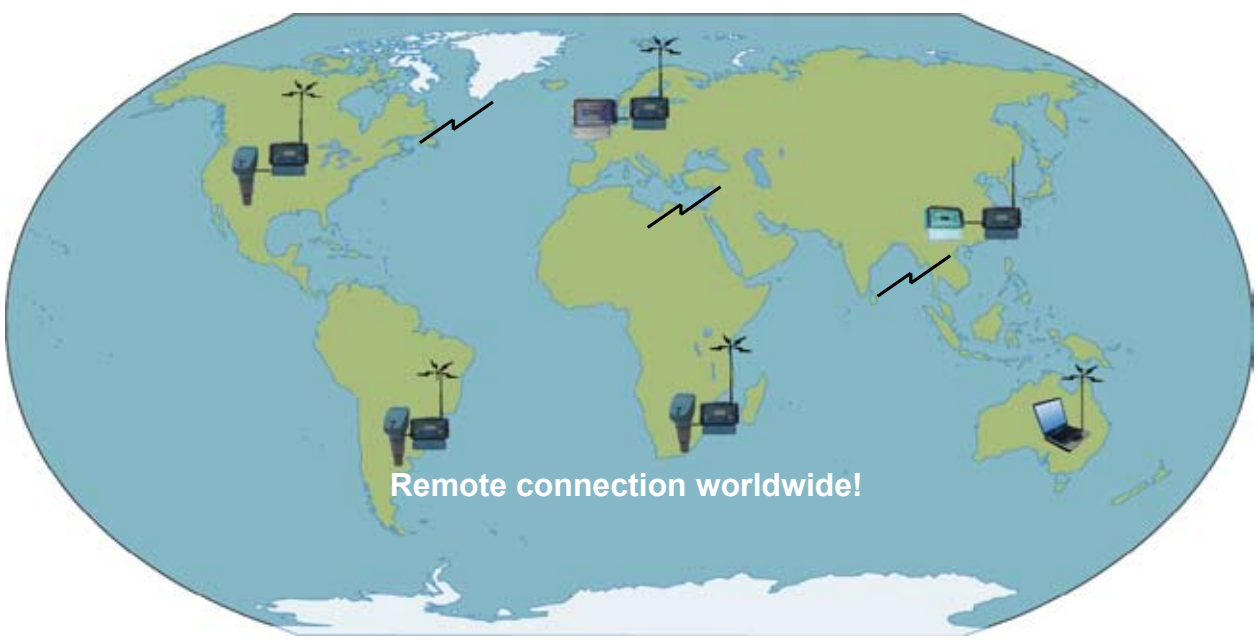
Remote technical support and complete commissioning of equipment in applications via our GSM/CDMA module allows monitoring and adjustments of settings no matter what corner of the world.



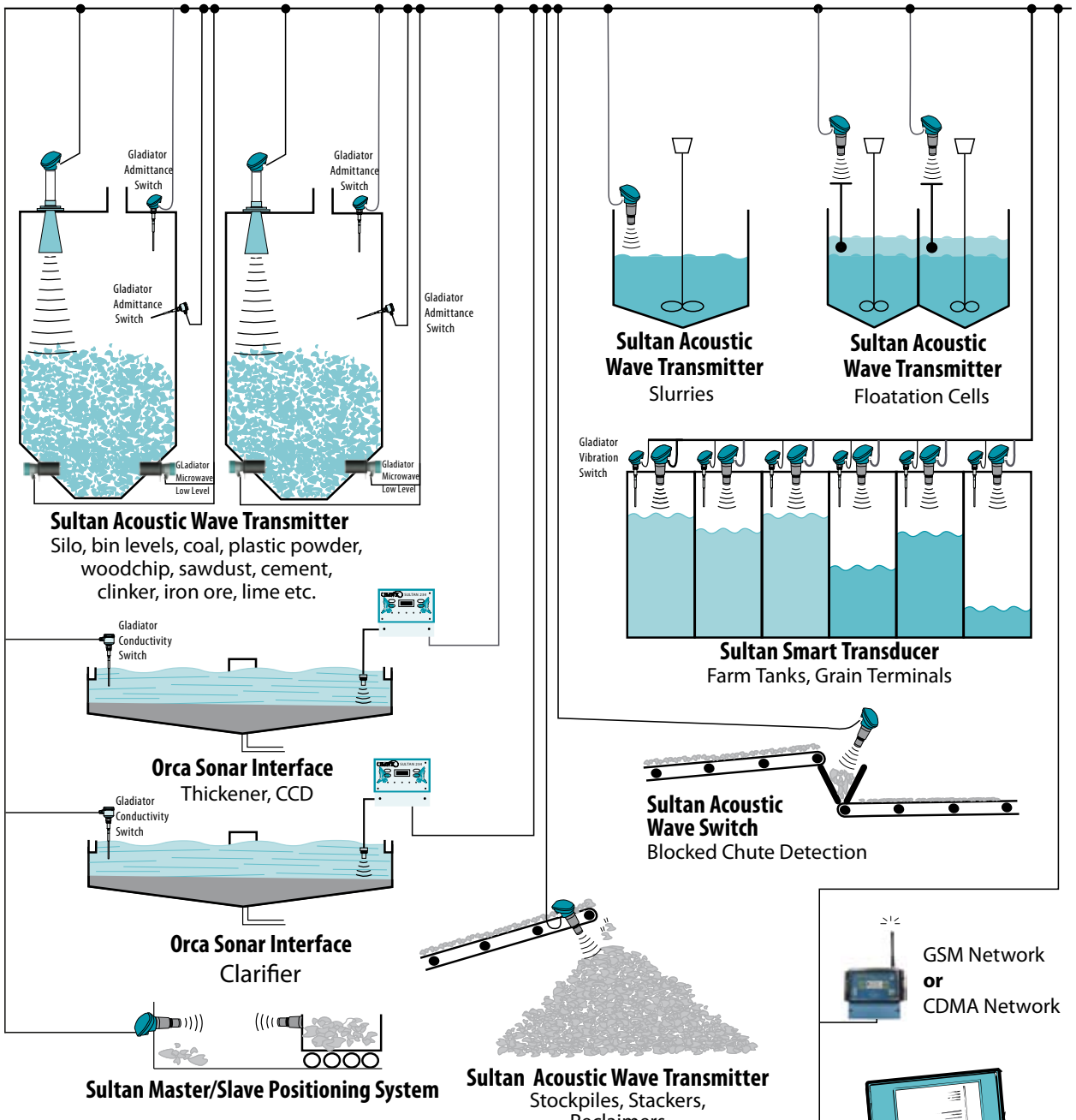








Modbus and Profibus



GSM or CDMA Network

- Typically up to 31 transmitters or switches per string.
- Maximum 250 transmitters or switches.
- Using GSM/CDMA network, transmitters and switches can be monitored, calibrated remotely.
- Alarm status, diagnostics can be monitored.
- Support from factory engineering for customer application problems.

(Limited Modbus query rate for Switches only)

Part Numbering

Liquid Integral Electronics

Model
AWLI2 Integral 2 Wire Liquid with PC Comms* 24Vdc, 4-20mA Output

Transducer
06 6m (20ft) max 140ºF Blanking 12”
10 10m (33ft) max 140ºF Blanking 16”

Thread Standards
TB BSP 2”
TN NPT 2”

HART Output
H 4-20mA ouptput with HART
X Not Required

AWLI2	06	TB	X

Accessories

GSM
Model
HL Hawk Link*

R Remote stand alone system mounted in a Sultan Remote Enclosure c/w antenna

Power Supply
B 24 VDC
U Universal 90-260VAC
X No power supply for E selection

Network Type
G2 GSM Frequency 800/1900 MHz/19200 for USA, Canada, Chile, Argentina
G4 GSM Frequency 900/1800 MHz/19200 Baud for Australia, Europe, Brazil
P Phone line
E Ethernet

HL	R	B	G4

* If the HL system is to be used with a 2 wire Sultan unit, you must use the HLRU system only. It is necessary to ensure appropriate isolation from the Sultan 2 wire system

FULL PART NUMBER

INTEGRAL VERSION
Electronics Accessories (if required)

AWLI206TBX + HLRBG4

Specifications

Distance/Blanking
• Model: 06 - 6m (20ft) max / 300mm (12”) Blanking
10 - 10m (33ft) max / 400mm (16”) Blanking

Maximum Operating Temperature
• Model: 06 - 60ºC / 140ºF
10 - 60ºC / 140ºF

Operating Voltage
• 12 - 30Vdc (residual ripple no greater than 100mV)

Power Consumption
• <10w @ 24Vdc

Analog Output
• 4 -20mA (750ohms User supply 24Vdc)

Communications
• GosHawk, HART

Resolution
• 1mm (0.04 in)

Electronic Accuracy
• +/- 0.25% of maximum range

Maximum Operating Pressure
• 30 P.S.I. (2 Bar)

Display
• 2 line x 12 digit alphanumeric LCD

Memory
• Non-Volatile (No backup battery required)
• >10 years data retention

Enclosure Sealing
• Integral System IP67

Cable Entries
• Integral: 3 x 16mm
• Other options available.

Mounting Adaptors
• 2” NPT / BSP Thread

Typical Weight
• Integral System 8.8lb

Additional product warranty and application guarantees upon request.

Technical data subject to change without notice.

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