

HYDRA SX30

Portable Dual Frequency Doppler Flowmeter

Applications

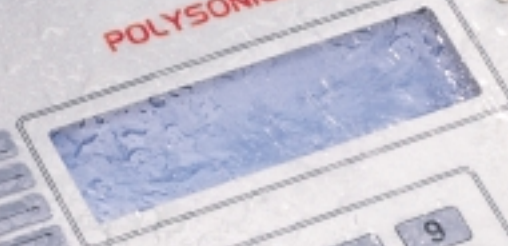
- Slurries
- Dredging
- Primary sludge
- Activated sludge

Features

- Accuracy to $\pm 1\%$
- Simple and easy to use
- Excellent noise immunity
- NEMA 6 environmental sealing
- Up to 24 hours battery operation
- Powerful 90,000 point data logger

POLYSONICS

W/AD
KEYS



BATTERY
LOW

DISCHARGED

RECHARGE
FM

OFF

FUNCTION
MENU

ENTER

ESC

MODE
PAGE

POLYSONICS®

Amazingly Simple

HYDRA SX30 Portable Dual Frequency Digital Doppler Flowmeter

The Hydra SX30 is the world's most advanced portable Doppler flowmeter. Combining Dual Frequency Doppler (DFD) technology (patent pending) with digital signal processing, it features exceptional performance and simple operation. The new instrument, which is principally designed for the measurement of aerated and/or solids-bearing fluids, is immune to much higher levels of external noise than was historically possible with Doppler technology. This technique significantly improves the ability of the Hydra SX30 to operate in what were previously considered marginal applications for Doppler flowmeters.

Unlike conventional Doppler flowmeters, which operate at a single frequency, the Hydra SX30 generates two independent ultrasonic signals at different frequencies. The two frequencies are used to automatically identify and eliminate noise errors, from sources such as variable frequency drives.

In addition, the operation of the instrument is enhanced by an Expert System which allows the flowmeter to automatically "learn" the application parameters. As a result, the Hydra SX30 can be set up in four easy steps and at a fraction of the time necessary to configure competitive flowmeters.

So, say goodbye to complexity and say hello to the Hydra SX30!

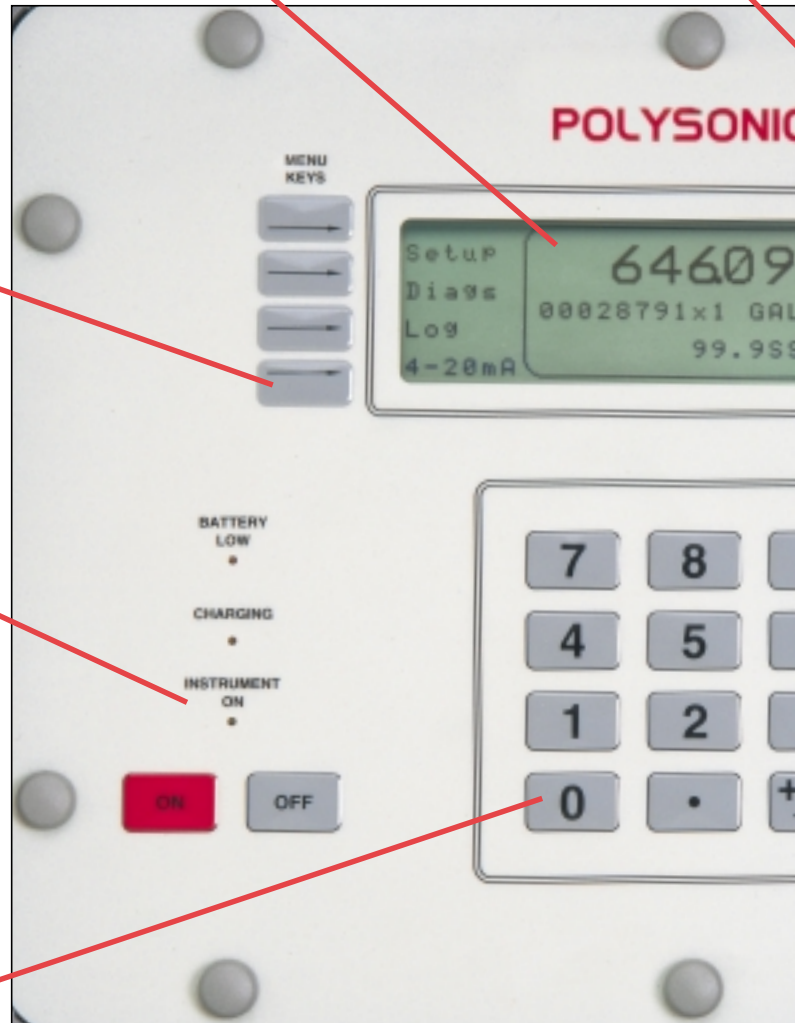
Backlit 240 x 60 dot matrix display with high resolution characters. Provides excellent viewing visibility even in poorly lit conditions.

Universal AC charging socket.

Menu keys for simple and quick access to site configuration, data logging and diagnostic functions.

LEDs for convenient indication of battery status.

Sealed membrane keypad with tactile action. Large keys make it easy to enter data – even with gloved hands.



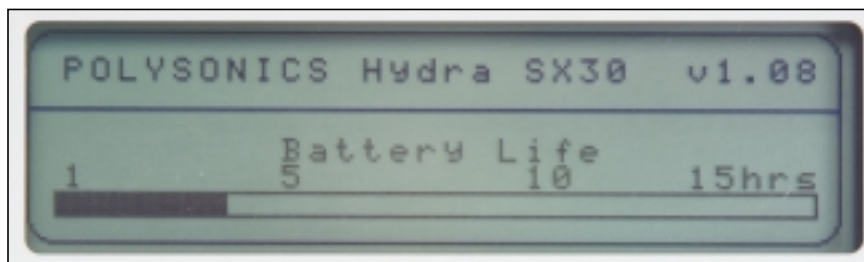
HYDRA SX



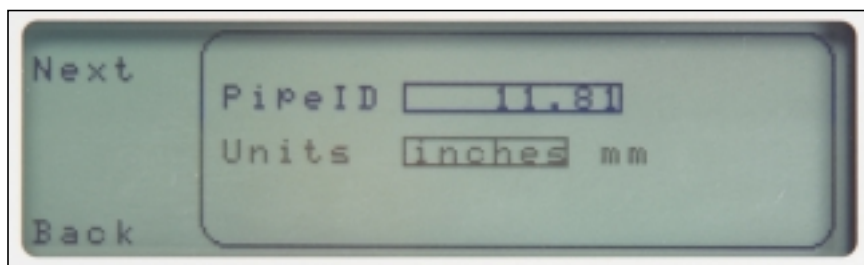
Serial interface port for data retrieval via HydraLink software.



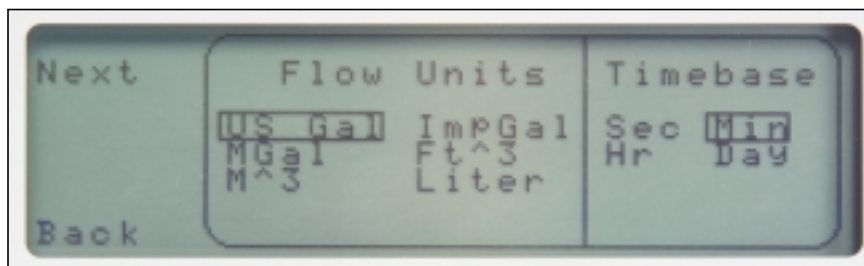
Just 4 Easy Steps...



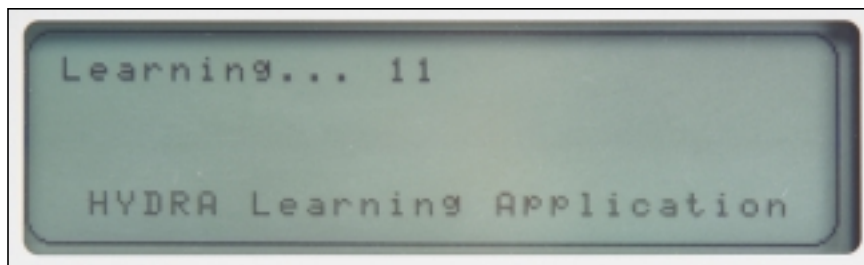
STEP 1 – The flowmeter automatically provides verification of remaining battery life.



STEP 2 – Simply select from millimetres or inches and enter the pipe internal diameter.



STEP 3 – Now choose your preferred flow units.



STEP 4 – There is nothing more to do! The Hydra Expert System is now learning your application and will shortly display the flow rate.

The Hydra SX30 transducers feature stainless steel shrouds and are suitable for most pipe materials.

HYDRA SX30

Specifications

Established at reference conditions

Performance Specifications

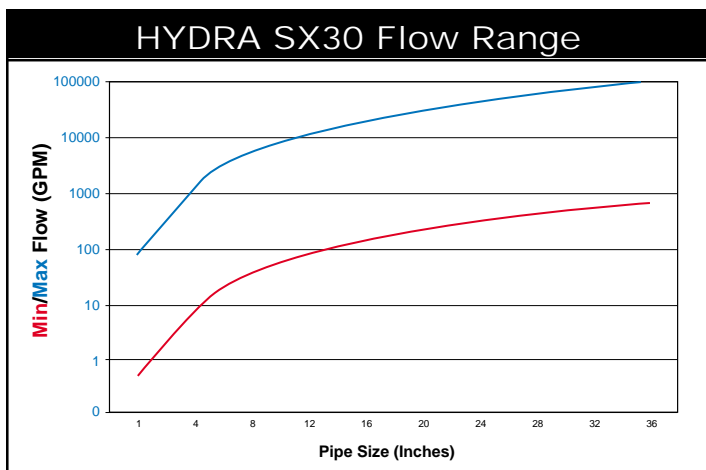
- Flow Range:** See table below.
Velocity Range: 0.2 to 32 ft/s (0.06 to 10 m/s)
Accuracy: ±1% total error band
Fluids: Liquids containing entrained gas or particles.
Pipe Size: 0.5 to 200 in. (12 to 5000mm)

Physical Specifications

- Transmitter:** NEMA 6 (IP67), waterproof against accidental immersion and splashproof with lid open.
Transducers: Encapsulated dual frequency sensor heads, encased in stainless steel shrouds with integral transducer clamps and BNC connectors. 16 ft (5m) cable — standard
Weight: **Approximately 11 lbs (4.9 kg) - 12 hour battery**
 Approximately 15 lbs (6.8 kg) - 24 hour battery

Functional Specifications

- Outputs:** 4-20mA (into 1000 ohms), 12 bit opto-isolated. RS232 serial interface.
Power Supply: Built in lead acid gel battery.
 12 hours continuous operation — standard
 24 hours continuous operation — option
 90-264 VAC, 50/60 Hz
 12-15 VDC auxiliary power port
Charge Period: 8 hours
Keypad: 19 key with tactile action.
Display: Backlit, 240 x 60 dot, high resolution graphics display.
Data Logger: 90,000 point data logger. Programmable in log intervals of 30 sec., 1, 5, 15, 30, 60 mins. HydraLink retrieval software (Windows 95/98 version) included as standard. Compatible with Microsoft Excel, Lotus 123 and other similar packages.
Temperature: -40° to +250° F (-40° to 122°C) - transducers
 Optional higher temperature range available.
 -5° to 140° F (-20° to +60°C) — electronics
Compliance: Designed to meet CE and CSA general purpose.



Ordering Information	
Model	Product Description
SX30	Hydra SX Portable Dual Frequency Doppler Flowmeter
Code	Battery Duration
1	12 hours
2	24 hours
Code	Transducer Cable Length
16A	16 ft. (5m) cable, standard
or XXXA	Additional cable, max. 500 feet (152m) 10 ft. (3m) increments
Code	Additional Options
0704/0187	UTG Ultrasonic Thickness Gauge
Typical Model Number:	SX30 -1-16A

POLYSONICS®

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