

# Dry Bubble Unit

Water Level

## General Description

KISTERS' dry bubble unit HS23 is a standard component of a 'constant bubble' type gas purge system. The HS23 provides a constant flow of gas (e.g. dry nitrogen or dried air) through a small diameter conduit (river line) to an opening submerged in the water body (orifice).

Changes in water level are detected by a dry pressure sensor connected to the HS23 by measuring the pressure head of gas bubbling from the orifice.

The HS23 is a reliable and maintenance free method for accurate sensing of water level. It provides a constant differential pressure (3-5 psi) above the pressure head at the orifice. This constant differential pressure maintains a constant bubble rate through the gas tube throughout all water level regimes.

The system incorporates a regulator valve for setting the bubble rate. This eliminates the need of sight glass and oil reservoir. The unit is pre-calibrated at the factory.

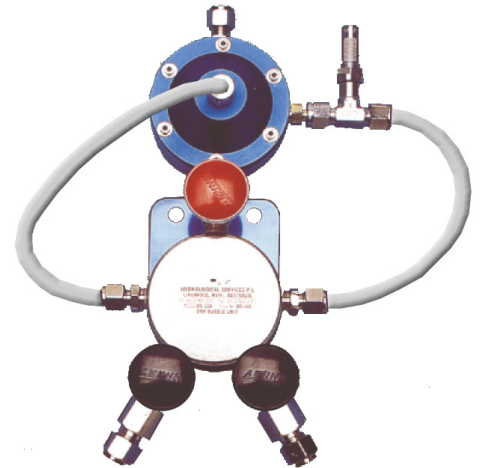
## Applications

The HS23 is suitable for these applications:

- Surface Water
- Ground Water
- Reservoirs
- Dams
- Coastal
- Canals

## Features

- Robust construction
- Pre-calibrated regulator valve
- No oil (dry operation)
- Easily serviced and maintained
- Available in single line (HS23SL), dual line (HS23DL) or dual orifice (HS23DO) models
- Suitable for all dry pressure transducers such as KISTERS' WL3100 and WL3100A (see flipside) and compatible third-party products



## Technical Specifications

<b>Application</b>	Suitable for use with an external dry nitrogen gas cylinder or as a component in a compressor system using dried air (e.g. Model HS40AFC/HS40AFC/V HS40 Series II or HS55)
<b>Pressure Transducer</b>	Suits WL3100 or WL3100A or compatible third-party models
<b>Differential Regulator</b>	Standard feature on all models
<b>Available Models</b>	SINGLE LINE, DUAL LINE or DUAL ORIFICE
<b>Gas Supply Line Fitting</b>	¼" standard, 3/16" or 3/8" fittings can be provided as accessory items.
<b>Instrument Line Fitting</b>	¼" standard, 3/16" or 3/8" fittings can be provided as accessory items.
<b>Orifice Line Fitting</b>	3/8" standard, 3/16" or ¼" fittings can be provided as accessory items.
<b>Bubble Rate</b>	Factory set at approximately 26 bubbles per minute
<b>Accessory Items</b>	HS23QC bubble rate tested orifice when bubble unit is fitted with SC027-68 quick connector and HS2360-02 adapter
<b>Ferrules</b>	Available to suit fittings listed above
<b>Dimensions</b>	220 mm × 220 mm × 150 mm (8.66" x 8.66" x 5.91")
<b>Weight</b>	HS23SL: 3.5 kg (7.72 lbs); HS23DL: 4.5 kg (9.92 lbs); HS23DO: 4.5 kg (9.92 lbs)

## Related Products and Accessories



### Dry pressure transducers WL3100 and WL3100A:

High precision dry pressure transducers that allow

the measurement of water head to a fine degree of accuracy and repeatability. The low-power devices are available in ranges from 5 m (16 ft) to 50 m (164 ft). They are compatible with many pressure measurement applications.

### Heavy wall polythene pressure line:

3/8" OD x 1/8" ID, available in rolls of 300 m, 200 m and 100 m



### Standard orifice fitting BU07:

copper body (to deter aquatic growth) in a polyethylene cap (to reduce aquatic growth) for

2" GWI standard pipes. Medium bubble rate: max. 26 bubbles/minute.



### Gas chamber orifice

**GCO1P:** reliably performs with all bubble rates from

high to extremely low; increased sensitivity optimizes power consumption; almost no lag between actual level rise and orifice pressure change; polyethylene body and

copper coated screen to deter aquatic growth; stable operation even when covered with silt (<=1 m).



### Gas bottle regulator BU08:

Modified regulator for a dry oxygen gas cylinder

Please ask for details.

Reseller

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