

Dry Pressure Transducer

WATER LEVEL

General Description

WL3100 is a dry/dry differential pressure transducer. The difference between the pressure on the high and low pressure ports is linearized and converted to a usable 4-20 mA current output and made available as a digital serial SDI-12 output.

The SDI-12 output transmits up to a distance of 60 m (200 ft). The 4-20 mA and SDI-12 outputs can operate simultaneously allowing redundant connection to up to 2 data loggers or RTUs.

WL3100 and WL3100A are mounted in a vented rugged aluminium enclosure.

The WL3100 transducer is available as 'stand alone' for connection to HS23 dry bubble units (see flipside) or can be fitted as a component of the HS40 Series II or HS40 Compact bubbler system.

Two models: WL3100 and WL3100A

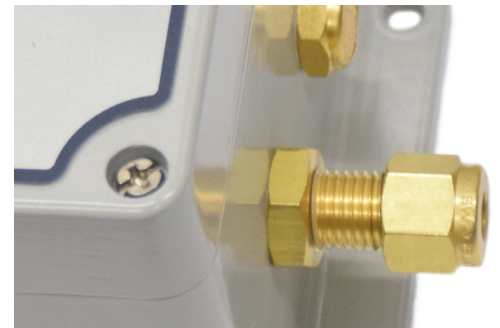
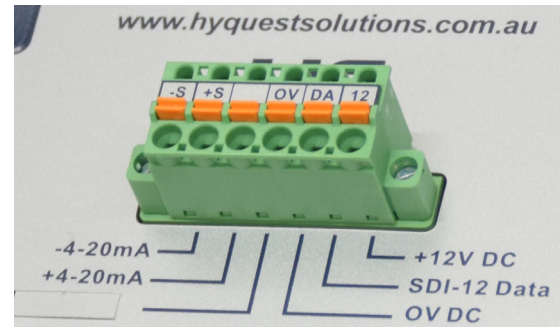
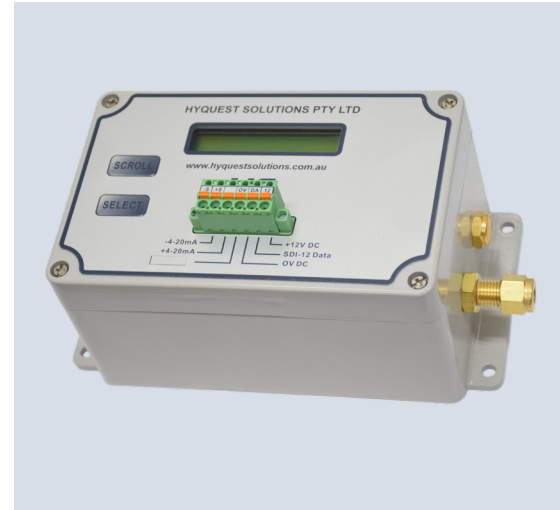
The two units share the same base technology and have very similar specs. The WL3100A is an advanced model with a wider temperature range starting at -40 °C and additional location correction factor to better account for atmospheric pressure influence, especially in particularly elevated or deep sites.

Applications

- Surface Water
- Ground Water
- Waste Water
- Reservoirs and Dams
- Lakes

Features

- High accuracy +/-0.02 % full scale
- Compatible with many pressure measurement applications
- Available in ranges from 5 m (16 ft) to 50 m (164 ft)
- SDI-12 and 4-20mA output at the same time
- Low power consumption
- Factory calibrated by HyQuest Solutions with certificate



Technical Specifications

Range	0-5 m, 0-10 m, 0-15 m, 0-20 m, 0-40 m, 0-50 m water head
Accuracy	+/-0.02 % FS (full temperature compensation)
Overpressure	2.67 x range
Longterm Stability	Typically +/-0.05 % FS per annum
Power Supply	Operating : 9.6 -16 V DC
Outputs	4-20 mA, SDI-12 (up to 60 m); RS232 (with optional SDI-12 to RS232 adapter SE231)
Connectors	<ul style="list-style-type: none"> ■ Standard: pluggable screw termination block ■ Optional: MIL spec connectors
Enclosure	Powder-coated aluminium
Ingress Protection	IP65
Programmable LCD	<ul style="list-style-type: none"> ■ Type: 2 x lines x 16 characters ■ Backlighting (powered by external battery) ■ Displays: range, water level, battery voltage
Pressure Transducer Connection	6 mm (1/4 ") outer diameter
Operating Temperature	<ul style="list-style-type: none"> ■ WL3100: -20 °C to 70 °C (transducer only, excludes LCD Display) ■ WL3100A: -40 °C to 70 °C (transducer and OLED Display)
Operating Relative Humidity Range	0 - 95 % non-condensing
Dimensions and Mass	L x H x D: 180 mm x 105 mm x 100 mm; 1.2 kg

Accessories



HS40 Series II Gas Purge Compressor and Bubbler System:

The HS40 has been designed to replace conventional nitrogen gas bottle supply to bubble units or gas purge

systems. It is used for measuring water level in dams, rivers, canals and tanks with up to 50 mH₂O (131 ft) head.

HS40 Compact: Small and lightweight version of the proven HS40 Series II gas purge compressor constant bubble system.



HS23SL: Reliable, accurate and maintenance free gas purge water level sensing system. Versions available: SL (single line), DL (dual line), DO (with dual orifice manifold)



iRIS dataloggers and data modems:

- Robust housing
- IP over one or two channels of your choice: xG / GPRS, satellite, IoT
- I/O: analog, digital, SDI-12, Modbus
- iLink software
- Telemetry or cloud app



BU07 standard orifice fitting:

brass body in a polyethylene cap (reduction of aquatic growth) for 2" GWI standard pipes. Medium bubble rate: max. 26 bubbles/minute.



GC01P gas chamber orifice:

reliably performs with all bubble rates from high to extremely low, optimized power consumption, almost no lag between actual level rise and orifice pressure change, materials that deter aquatic growth, stable operation even when covered with silt (<=1 m)

Please ask for details.

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