

HYDRO L1600

NEW LINE SELF CLEANING LEVELMETER BUBBLE TO BUBBLE SENSOR

APPLICATION FIELD

Industrials plants, tanks and reservoirs,
rivers, groundwater, meteorology, hydro-
logy, hydrogeology,
hydrometry, environmental control, ...



It's a completely new smart self contained sensor designed to measure, record and transmit waterlevel. This low power consumption instrument works on the bubbling principle. It is available for several ranges :

HYDRO L1605 : 5 meters water dpth (full scale)
HYDRO L1610 : 10 meters water dpth (full scale)
HYDRO L1620 : 20 meters water dpth (full scale)

Thanks to its integrated compact air generator, the new waterlevel meter HYDRO L1600 measures the level by sending a small continuous pressure at a low flow to the bottom of the water column. This pressure is applied to the silicium membrane of a pressure sensor which delivers a signal proportional to the water depth.

The HYDRO L1600 levelmeter comes standard with the following features

- **Temperature compensation** of the measurements and outputs
- **The water depth compensation** according to **the influence factors**
- The user has several possibilities : the water level measurement can be transmitted as **an analog signal** 4-20mA ou 0-10V or as **a numeric message** through physical ports SDI12 or RS232, RS485, USB, modem RTC, GSM, ...
- **Very low power consumption** instrument ideal for remote area survey
- **The SDI 12 serial port** can be used as well for programming or transmitting the measurements
- **The serial port COM1** RS232 type is used to communicate directly with a PC in terminal mode (for the setting and local operating)
- **The serial port COM2** RS232 / RS485 type is used to transmit the corresponding numerical value of the measurement with an ISP8 format in order to maintain the compatibility with our former instruments LPN8 type
- **A display** with a LCD color screen and a sensitive 6 button keyboard
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HYDRO L1600 can be optionnaly delivered with the following features

- 2 extra analog outputs **4-20mA** ou **0-10V**
- **Modbus protocol on serial port COM2** if the numerical message ISP8 is not activated
- Protocol « **HYDROLOGIC current values** » on COM2 if the numerical **message ISP8** or the **modbus protocol** are not activated
- An **external nitrogen** bottle can be connected to the system in order to take over from the integrated air generator if the power supply becomes to low to ensure a normal working of the level meter
- An **external 7bar compressor** in a deeper enclosure
- An air dryer
- **Alert system**

Polycarbonate enclosure	Size : 200 x 200 x 140 mm / Weight : 1.94kg
Safety class	IP 44
Analog output - 4-20mA / 0-10V Inputs TOR Outputs TOR	1 as standard + 2 optionnal 1 to 3 4 on relays
Power supply	12 V Option : 24 Vdc ; 48 Vdc ; 220 Vac ; solar panel
Consumption	=45mA when operating <=3mA in sleep mode
Temperature range	-40° à +60°C
Accuracy	+/- 0.1 % full scale on all temperature ranges
Final values	Serial numerical or analog values
Logging frequency	5 to 120 sec
Communications	RS232/485 ; SDI12 , USB slave or master RTC, GSM, Radio external (mini 2 simultaneous channels)
Protocol on RS232/RS485	ISP8 , PN2, HTTP and new owner protocol MODBUS and GOES as option
SDI 12 protocol	Slave
GRAY signal	yes – with ISP8 external
Datalogging set on whole hour	Yes
Spare parts life time counter	Time: compressor, capillary tube, battery, solenoid valve,...
Max speed in level change	20 cm/mn for 100m length
Micro controler	Yes
Temperature compensation	Yes as standard
Temperature drift	+/- 0.1% of the full scale, between -40° à +60°C
Purge	When starting - Automatic and/or manual
Measure range	0-5m 0-10m 0-20m >20m contact us
Tube length	From 0 to 300m
Pneumatic connection	Screwed nut for rilsan tube 4/6 mm
Electrical connection	Completely foolproof—plug-in terminal blocks
Dust filter	Yes - easy access
Servicing	Easy access and low maintenance
Dismantling	Sensor and components can be easily dismantled
Overpressure	Minimum twice the full scale
Historical	1 to 6 months depending on the site
Software	Remote updated
Memorisation	1.4 Mbytes Flash Memory
Resolution	

Features and specifications are not binding unless confirmed our company.



4 RUE DU TOUR DE L EAU
BP 275
38407 ST MARTIN D HERES CEDEX
France - GRENOBLE
Tel : 00 33 (0)4 76 03 74 74
Fax : 00 33 (0)4 76 42 40 70
co@hydrologic.fr
www.hydrologic.fr