

HYDRO V1600



NEW RANGE OF SENSORS VOLUME MEASUREMENT AUTONOMOUS BUBBLE TO BUBBLE

DOMAINS OF APPLICATIONS

Industrials plants, reservoirs ...

New volumeter sensor, **low power consumption**, working on the bubbling principle (self cleaning). Several ranges are available :

HYDRO V1601 : 1 meter water depth (full scale)

HYDRO V1605 : 5 meter water depth (full scale)

Thanks to its compact compressed air generator, the HYDRO V1600 range measures the water level by means of that of the injection pressure of a low air flow at the foot of the water column.

This pressure is applied to a silicium membrane sensor which delivers a signal proportional to the water level upstream of the weir or of the contraction.

The level is then converted into volume by a « curve V(H) » defined by a parametric formula or by a set of pairs of points (level/volume).

The filtered volume is stored in flash.

V1600 has the following basic elements and functions :

- **Temperature compensation** of the measurements and outputs
- The user has several possibilities : the water level measurement can be transmitted as an **analog signal** 4-20 mA or 0-10V or **digital message** on SDI12 or RS232, RS485...
- **Memorization** of measurements
- An RS232 type **COM1 serial link** for communication with a PC in terminal mode (for configuration and Local operation), or in exchange with the software HYDROEXPRESS for the use of the history according to a proprietary protocol
- An RS232 or RS485 type **COM2 link** for digital copying of the measurement in ISP8 message format, in order to maintain upward compatibility with our old equipment (LPN 8/2)
- **SDI12 link** for transmission of measurements or configuration
- A display with an LCD color screen and a sensitive 6 button keypad
- 8 Programmable Logic Outputs active on minimum or maximum measurement threshold or on alarm

V1600 can be delivered with the following optional features :

- 2 additional **analog outputs** 4-20mA or 0-10 Volts.
- **MODBUS protocol** on serial port COM2 when the numerical Message ISP8 is not activated
- Protocol "**HYDROLOGIC Valeurs courantes**" on serial port COM2.
- **History record** by USB key
- **3 logic inputs** for detection of external events
- **HydroExpress** software for data processing

MEASURES	
Measuring range	0 - 1 m / 0 - 5 m
Level resolution	1 mm
Level accuracy	+/- 0.2 % PE full scale on all of the temperature range for 1 m +/- 0.1 % PE full scale on all of the temperature range for 5 m
Temperature range	-40° to +60°C
Temperature drift	+/- 0.1 % full scale in the range -40°C to +60°C
Sampling interval	10 à 120 sec adjustable set on full hour
Filtering	« moving average » type filtering
Purge	Automatic : at the start of the unit and programmable Manual : access from the keypad
Field of no sensor deterioration	At least 1.5 times sensor full scale
MEMORIZING	
Capacity/ Autonomie de mémorisation	1.9 Mo flash memory
Logging/Autonomy	Logging at a mixed interval or by linearization Autonomy from 1 to 6 months depending on the site
COMMUNICATIONS	
Interfaces	SDI12, RS232/RS485, USB master (USB key connection) ou USB slave
Protocols	Terminal emulation / SDI12 slave. ISP8 / CDC9 (for parallel output) and MODBUS : in option Operating system and remote software update
INPUTS / OUTPUTS	
Analog outputs	1 in standard + 2 optional – Programmable in 4-20mA or 0-10V
Logic inputs	3 optional
Logic outputs	8 to be programmed individually based on a programmable threshold or alarm
MAINTENANCE	
Autodiagnostic with alarm indication	Monitoring of the measurements with respect to their domain of definition and alarm control
Operating time and maintenance counter	Available for compressor, tube, battery, solenoid valve and air filter
GENERALS FEATURES	
Power supply	12 Vcc External : 24 Vdc ; 48 Vdc ; 220 Vac ; solar panel
Consumption	50 mA when active / < 2mA in sleep mode
EMC protection	EMC according EMC certifications
Polycarbonate enclosure	Case size : 200 x 200 x 140 mm / Weight : 2 kg
Safety classe	IP 44
Relative humidity	< 80% without condensation
Pneumatic connection	Screw connection fitting for 4/6 mm tubing
Electrical connection	Removal terminal blocks, keyed
Dust filter	Yes – Easy access
Display and keypad	LCD with 4 lines of 20 characters, alarm and activity indicators with Leds
OTHER FEATURES AND OPTIONS : CONTACT US	
Physicochemical measurements	Up to 10 possible physicochemical measurements - configurable.

Features and specifications are not binding unless confirmed by our company



4 RUE DU TOUR DE L'EAU
38400 ST MARTIN D HERES
France - GRENOBLE
Tel : 00 33 (0)4 76 03 74 74
hydrologic@hydrologic.fr
www.hydrologic.fr