



## BL122 • BL123 pH/ORP Controllers with Hanna Cloud Connectivity

BL122 and BL123 are designed to maintain constant pH and disinfectant levels in swimming pools, hot tubs, and spas and offer the added benefit of allowing remote connection and access to devices via the Hanna Cloud web app.

These controllers are available in two configurations. The basic version is the in-line model which allows for direct installation of probe and chemical injection fittings into existing piping. A panel mounted version with a bypass flow cell is also available. The bypass flow cell allows for calibration and maintenance of the probe without having to shut down the recirculation pump.

For compliance monitoring, BL122 and BL123 have a built-in datalogger. Measurement readings are logged every 10 seconds with a new log starting for each new day or when the instrument is calibrated. Logged data include pH, ORP, and temperature values, last calibration data, setup configuration, and any event data.

For BL123 models, three 4-20 mA analog outputs are available for users that wish to connect to an external chart recorder or datalogger to monitor any of the three measured parameters. The outputs are scalable, offering increased flexibility and better resolution as needed.

The chlorine level is measured based on the ORP or REDOX principle. An increase of the ORP value correlates with an increase of the free chlorine level. pH and disinfectant testings are made together for more efficient disinfection and control. The efficacy of sanitizers, is dependent on a controlled pH value. The ORP value is the most consistent indicator of the sanitizing effectiveness of the pool/hot tub or water treatment. Typically 650-750 mV at 7.2 pH indicates proper water treatment (all harmful bacteria are killed in less than 1s). pH and disinfectant testings are made using the HI1036-1802 combined electrode installed in-line or in flow cell. To prevent the ground loop effects from causing erratic readings and damage to the system the electrode has a matching pin considered the "earth ground" connection. It was specially designed to detect the broken electrode based on a shifted isopotential value. The HI1036-1802 uses a Ag/AgCl reference with 3.5 M KCl. The ORP values are referenced to it.

