



*GroLine*

## HI981420 Hydroponics Monitor

Features a 3-in-1 probe  
and quick calibration

[hannainst.com/glm](http://hannainst.com/glm)

**HANNA**<sup>®</sup>  
instruments

## **Quick Cal**

Allows for single-point calibration for pH and/or conductivity sensors with one solution.



## **Simpler with a combination probe**

The HI1285-8 is a 3-in-1 pre-amplified combination probe. This probe is built to be durable, with an extendable cloth pH junction and two graphite sensors for reliable conductivity readings. A built-in temperature sensor ensures fast, accurately compensated readings even during sudden temperature fluctuations.

HI981420

# Hydroponics Monitor

The HI981420 GroLine Monitor provides 24 hour continuous monitoring of pH, conductivity (EC or TDS), and temperature in hydroponic nutrients. Quick to setup and simple to use, this monitor was designed with Hydroponics, Aquaponics, and Greenhouses in mind. Make your nutrient solution easy to manage with the GroLine Monitor and combined pH/EC/Temperature probe.



## Instantly see all measurements.

The versatile display of the GroLine Monitor allows for three screen modes. The LCD can display all three essential hydroponic nutrients measurements at one time, a 3-second cycle of single measurements, or a real-time graph screen with options for measurement selection and log recall.

## Monitor changes over time.

Fluctuations in your hydroponic nutrient solution can have lasting effects on your plants. The GroLine Monitor automatically logs every 15 minutes for the last 30 days, and stores min, max, and average values so you can recognize when patterns arise and help prevent future problems. For review and storage, use the USB-C to easily transfer data to a flash drive or PC using a cable. Files are exported as .csv.

## Grow with confidence.

The GroLine Monitor frees up your time by doing the testing for you. Simply set high and low alarm levels - if your hydroponic nutrient solution moves out of range a measurement error will display. A quick look at the large display will let you know if your nutrient solution needs adjusting.

3 sensors in a single rugged probe body

### Quick Cal

- allows single-point pH and conductivity/TDS calibration using one solution.

IP65 rated enclosure designed to withstand harsh growing environments

EC to TDS conversion factor with a choice of 0.5 (500 CF) or 0.7 (700 CF)

High and low alarms with LED indicator

### 30 day data logging

- logs every 15 minutes (min, max, avg)

Large LCD with plant-friendly green backlighting

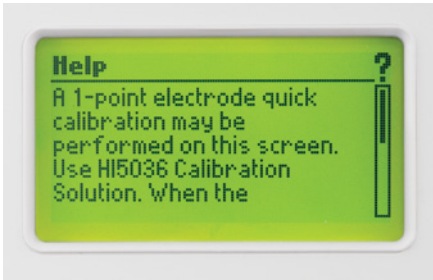
Ambient light sensor for automatic LCD dimming

Data transfer via USB-C



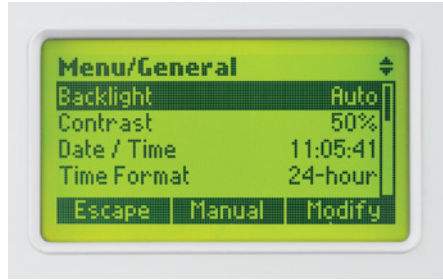
HI981420 Hydroponics Monitor

## On-Screen features



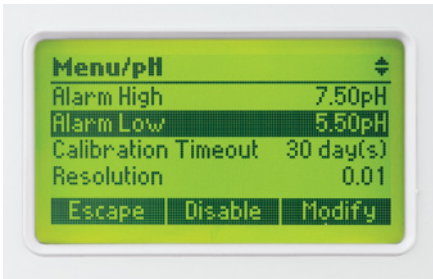
### On-screen help

Context sensitive help is available at the push of a button.



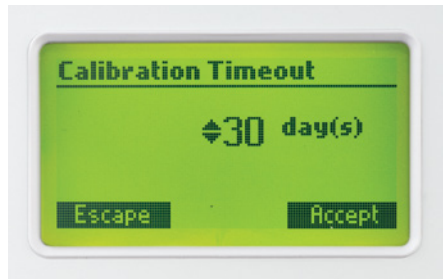
### Menu

Easy to navigate menu system to access calibration, GLP, and meter setup.



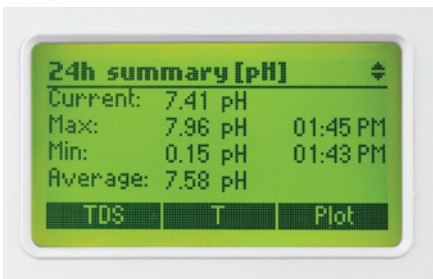
### Alarms

High and Low alarms for pH, EC/TDS and Temperature.



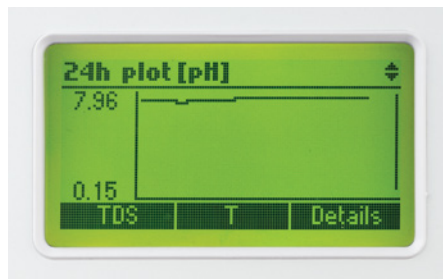
### Calibration timeout

A reminder to calibrate your probe can be set from 1 to 30 days.



### Data viewing

30 day and 24 hour summary screens can be viewed in plot or detail views. Real-time data can be viewed in plot view.



# Specifications

pH	Range*	0.00 to 14.00 pH; 0.0 to 14.0 pH
	Resolution	0.01 pH; 0.1 pH
	Accuracy	±0.05 pH, ±0.1pH
	Calibration	one or two-point calibration (using pH 4.01, 7.01, 10.01 buffers) (using auto buffer recognition); one-point calibration using quick calibration solution
	Temperature Compensation	automatic from 0.0 to 60.0°C (32.0 to 140.0°F)
EC	Range	0.00 to 10.00 mS/cm
	Resolution	0.01 mS/cm
	Accuracy	±0.1 mS/cm from 0.00 to 5.00 mS; ±0.2 mS/cm from 5.00 to 10.00 mS/cm)
	Calibration	one-point at 1.41 mS/cm or 5.00 mS/cm (using auto standard recognition); one-point calibration using quick calibration solution
	Temperature Compensation	automatic with $\beta$ set at 1.9%/°C
TDS	Range	0 to 5000 ppm (0.5 CF); 0 to 7000 ppm (0.7 CF)
	Resolution	10 ppm (mg/L)
	Accuracy	±2%FS
	Calibration	via EC calibration
	Conversion Factor (CF)**	0.5 (500 ppm) or 0.7 (700 ppm)
Temperature	Range	0.0 to 60.0°C/32.0 to 140.0°F
	Resolution	0.1°C/0.1°F
	Accuracy	±0.5°C/±1°F
Additional Specifications	Probe	HI1285-8 pH/EC/TDS/temperature polypropylene body, pre-amplified multiparameter probe with internal temperature sensor, DIN connector and 2 m (6.6') cable
	Data logging	automatic Logging for 30 days with 15 minute intervals; min/max/average
	Data export	.CSV format; via USB-C drive or PC using USB-C connection
	Display	128 x 64 pixel B/W LCD with green backlight
	Alarms	high and low with enable/disable option for all parameters.
	Power Supply	12VDC adapter (included)
	Environment	0 to 50 °C (32 to 122 °F), RH max 95% non-condensing
	Dimensions	125 x 185 x 38 mm (4.92 x 7.28 x 1.49")
	Weight	333g (11.7oz.)
Ordering Information	<b>HI981420</b> is supplied with HI1285-8 multiparameter probe, Quick Cal buffer solution sachets (2), pH electrode cleaning solution sachet for agriculture (2), 12VDC power adapter, quality certificates and instruction manual.	

\* The sensor is rated 0 to 13 pH and 0 to 50°C

\*\*1000 µS/cm = 500 ppm with 0.5 CF

# Calibration and Maintenance Solutions



## Quick Cal

pH/EC quick calibration solution

**HI5036-050** 500 mL bottle

**HI5036-023** 230 mL bottle

**HI5036-012** 120 mL bottle

Includes certificate of analysis



## Storage Solution

for pH electrodes

**HI70300-050** 500 mL bottle

**HI70300-023** 230 mL bottle

**HI70300-012** 120 mL bottle

**HI70300G-25** 20 mL sachets (25)



## Cleaning Solution

for pH electrodes

**HI7061-050** 500 mL bottle

**HI7061-023** 230 mL bottle

**HI7061-012** 120 mL bottle

**HI70061G-25** 20 mL sachets (25)



## Quick Cal

pH/EC quick calibration solution

**HI50036P** 20 mL sachets (25)

Includes certificate of analysis



## 1.41 mS/cm

conductivity standard solution

**HI7031-023** 230 mL bottle

**HI7031-012** 120 mL bottle

**HI70031G-25** 20 mL sachets (25)

Includes certificate of analysis



## 5000 µS/cm

conductivity standard solution

**HI7039-023** 230 mL bottle

**HI7039-012** 120 mL bottle

**HI70039G-25** 20 mL sachets (25)

Includes certificate of analysis



## pH 4.01

calibration solution,  
±0.02 pH @ 25°C (77°F)

**HI7004-050** 500 mL bottle

**HI7004-023** 230 mL bottle

**HI7004-012** 120 mL bottle

**HI70004G-25** 20 mL sachets (25)

Includes certificate of analysis



## pH 7.01

calibration solution,  
±0.02 pH @ 25°C (77°F)

**HI7007-050** 500 mL bottle

**HI7007-023** 230 mL bottle

**HI7007-012** 120 mL bottle

**HI70007G-25** 20 mL sachets (25)

Includes certificate of analysis



## pH 10.01

calibration solution,  
±0.02 pH @ 25°C (77°F)

**HI7010-023** 230 mL bottle

**HI7010-012** 120 mL bottle

Includes certificate of analysis