

Aurora

Hydroponic Dosing Controller for Recirculating Systems

MODEL AURORA · NURAVINE FERTIGATION PLATFORM

The Aurora is Nuravine's original hydroponic dosing controller, the brain of a recirculating system. It continuously monitors reservoir chemistry with laboratory-grade probes and doses pH adjusters and nutrients to target through connected Elixir pump modules.

US-manufactured pH and EC/temperature probes are included in the box. Dosing runs on the same adaptive rules engine as the rest of the Nuravine platform: enter a recipe from the feed chart, and the controller learns your system's response and holds the target. Elixir modules daisy-chain from a single port, expanding one Aurora to hundreds of pumps.

- pH, EC, and temperature probes included
 - Elixir modules daisy-chain to 300+ pumps
 - Adaptive EC and pH dosing rules
 - Cloud monitoring at app.nuravine.com
- DO and ORP supported (probes sold separately)
 - 3.5 in capacitive touchscreen
 - Quick Dose and Start Active (auto-resume after outage)
 - OTA firmware updates



DOSING SYSTEM		WATER QUALITY SENSING	
Pump modules	Original Elixir 3-pump modules via the Elixir port	Included probes	pH and EC/temperature, laboratory grade, US manufactured
Expansion	Daisy-chain Elixir to Elixir; expandable to 300+ pumps	Optional probes	Dissolved oxygen and ORP (sold separately)
Module link	Dedicated Elixir port (RJ45 connector carrying the Nuravine device bus, not Ethernet) [1]	pH	Range 0-14, 0.1 resolution; 2-point calibration (pH 7.0 / 4.0), double junction
Dosing method	Recirculating reservoir monitoring and correction	EC	3-point calibration: dry, 445 uS/cm, 1417 uS/cm at 25 C
Minimum dose	1 mL	EC compensation	Automatic temperature compensation to 25 C reference
Dose delivery	Volumetric metering, segmented into cycles for uniform mixing	Temperature	Integrated in EC probe
Supported dosing	pH Up, pH Down, and any combination or ratio of nutrients	Dissolved oxygen	0-20 mg/L; single-point air calibration
Valve control	None onboard; pair with a Flux for valve automation via linked actions	ORP	Single-point calibration, 225 mV reference
		Sampling rate	1 reading/s
		Display units	uS/cm, mS/cm, PPM (500 / 640 / 700 scales), F/C, gal/L

CONNECTIVITY AND CLOUD	
Wi-Fi	2.4 GHz only
Wi-Fi security	WPA2-Personal
Network profile	Outbound-only TLS on TCP 443; no inbound ports required
Cloud platform	Nuravine Cloud at app.nuravine.com (browser-based, no install)
Device mesh	Integrates with up to 127 unique Nuravine devices
Flux pairing	Dual path: cloud and local router; automatic fallback
Data logging	Historical timeline of readings and dosing events; low/avg/high views
Offline operation	All rules continue running without internet
Firmware updates	Over-the-air (OTA) with automatic rollback

USER INTERFACE	
Display	3.5 in high-contrast capacitive touchscreen
On-device control	Live readings, Quick Dose, calibration, reservoir and system settings
Web application	Dashboard, rules, schedules, historical graphs, alerts

ELECTRICAL	
Power supply	24V DC, 1 A external adapter (included)
AC input	100-240V AC, 50/60 Hz (universal input)
Maximum consumption	24 W
Elixir modules	Powered separately (24V DC, 1 A per module)

ENVIRONMENTAL AND PHYSICAL	
Environment	Indoor, dry location; not waterproof
Mounting	DIN rail with bracket (rail and screws included)
Placement	Mount before Elixir pumps for steady sensor readings
Warranty	2-year limited hardware; pH and ORP probes 6 months

FUNCTIONAL CAPABILITIES

Dosing Automation

- EC rules with adaptive, self-learning dosing constant
- pH rules with target, swing deadband, and proportional final dose
- Recipe entry straight from the feed chart; controller does the math
- Timed and custom multi-action rules; manual Quick Dose
- Fill and Dose with a linked Flux flow meter
- Start Active: automatic resume after power outage

Cloud and Data

- Cloud Mirroring for real-time status and settings
- Live readings and remote control from any browser
- Trend visualization: nutrient use, dosing patterns, fluctuations
- Threshold-based alert notifications
- Per-sensor calibration history

Safety Interlocks

- Dosing halts if a rule's sensor disconnects or reads invalid
- Every dose bounded: per-dose limits, capped attempts, max EC step
- Container tracking prevents dosing on empty bottles; low-level alerts
- Wrong-direction detection aborts dosing and flags miswired pumps
- Overshoot prevention on both EC and pH control loops

IN THE BOX

■ 1x Aurora controller

■ 1x pH probe

■ 1x DIN rail with 2 mounting screws

■ 1x Power adapter, 24V DC / 1 A

■ 1x EC/temperature probe

ORDERING INFORMATION	
MODEL / SKU	DESCRIPTION
AURORA	Aurora dosing controller with pH and EC/temperature probes
ELIXIR	Elixir 3-pump peristaltic dosing module (original Aurora only)
SENSOR-PH	pH probe, double junction, BNC, 2 m cable
SENSOR-EC	EC/temperature combination probe, 2 m cable
SENSOR-DO	Dissolved oxygen probe, BNC, 2 m cable
SENSOR-ORP	ORP probe, double junction, BNC, 2 m cable
MANIFOLD-2 / -3 / -4	Schedule 80 sensor manifolds, 2 to 4 probe sockets

1. The Elixir port is not an Ethernet port. Never connect it to a network switch, router, or PoE equipment.