

Flux

Smart Irrigation and Valve Automation Controller

MODEL FLUX · NURAVINE FERTIGATION PLATFORM

The Flux is Nuravine's smart irrigation controller: 16 valve outputs, four 4-20 mA sensor inputs, and RS485 Modbus, driven by the same rules engine as the rest of the platform. It automates fills, drains, changeouts, zone feeding, and satellite tank management, standalone or paired with an Aurora dosing controller.

Rules fire the 16 outputs from sensor readings, timers, or linked devices, and multiple rules run in sequence. Paired with an Aurora, linked actions coordinate valve moves and dosing in a single workflow: open a fill valve, dose to target, then deliver to zones.

- 16x 24V AC/DC valve outputs
 - RS485 Modbus for third-party sensors
 - Pairs with Aurora for dose-and-deliver workflows
 - DIN rail and bracket mounting
- 4x 4-20 mA sensor inputs
 - Sensor, timer, and linked-device rule triggers
 - Runs offline; rules continue without internet
 - OTA firmware updates with automatic rollback



VALVE OUTPUTS	
Outputs	16 total, arranged as 4 output groups of 4
Output type	24V AC or DC, 2-wire devices, switched on/off
Supported loads	Solenoid valves, motorized ball valves, pump-start relays, relays
Wiring	Pluggable terminal blocks, 1 common + 4 switched outputs per group
Drive modes	Constant 24V or pulse mode (24V pull-in, 9.5V hold)
Valve safety	Timer and max-time caps drive valves to configured finish positions

SENSOR INPUTS	
4-20 mA inputs	4 channels (CH1-CH4), one sensor per channel, 2-wire and 3-wire
Sensor power	+24V supplied on 4-20 mA and Modbus terminals
Sensor types	Level, pressure, depth, and flow meters
Flow metering	Reads standard 4-20 mA flow meters in GPM (options 0.26-264 GPM)
Fieldbus	RS485 Modbus RTU, 1 port (+24V, A, B, GND), two-way
Modbus devices	Radar level and optical DO sensors; up to 32 devices

AUTOMATION	
Rule triggers	Sensor readings, timers, daily schedules, linked devices; AND logic
Rule actions	Set valve, timer valve, sensor valve, delay, notification, linked action
Concurrency	Multiple rules queue and run in sequence
Scheduling	Weekly and daily automatic rule switching, planned weeks out
Manual control	Push-button rule execution from the web app
Aurora pairing	Linked actions coordinate valves with dosing on an Aurora

CONNECTIVITY AND CLOUD	
Wi-Fi	2.4 GHz only
Device link	Local network device-to-device plus cloud; linked rules wait for reconnect
Cloud platform	Nuravine Cloud at app.nuravine.com (browser-based, no install)
Provisioning	Flux Setup hotspot with captive portal; token-based registration
Offline operation	All rules continue running without internet
Firmware updates	Over-the-air (OTA) with automatic rollback

FUNCTIONAL CAPABILITIES

Applications

- Satellite tank management with solenoid control and up to 4 level sensors
- Zone feeding with solenoids, flow meters, and pressure sensors
- Fully automated recirculating: fills, drains, changeouts
- Automated batch: mix multiple batches and send to zones

IN THE BOX

- 1x Flux controller
- 4x Black 5-position terminal blocks (valve outputs)
- 1x Green 4-position terminal block (Modbus RTU)

USER INTERFACE	
On-device	RGB status push-button (connection state, Wi-Fi portal control)
Web application	Dashboard, rules, schedules, historical data, alerts
Display units	psi/bar/atm, lbs/kg, gal/L, F/C, uS/mS/PPM (500 / 640 / 700)

ELECTRICAL	
Power supply	24V DC, 6 A external supply (included)
AC input	100-240V AC, 50/60 Hz (universal input)
Maximum consumption	144 W at full load
Valve rail	24V AC/DC switched outputs

ENVIRONMENTAL AND PHYSICAL	
Environment	Indoor, dry location; not waterproof
Mounting	DIN rail with bracket system
Dimensions	143 x 112 x 50 mm
Warranty	2-year limited hardware warranty

Working with Aurora

- Open a valve on the Flux, dose on the Aurora, deliver through another Flux
- Fill and Dose rules meter dosing against actual water volume added
- Linked actions pause and resume safely if a device reconnects
- Share sensors and actuators across all linked Nuravine devices

- 1x Power supply, 24V DC / 6 A
- 4x Blue 3-position terminal blocks (4-20 mA inputs)
- 1x DIN rail (4 in)

ORDERING INFORMATION	
MODEL / SKU	DESCRIPTION
FLUX	Flux irrigation and valve automation controller
AURORA	Aurora dosing controller (pairs via linked actions)
SWITCH	Switch Wi-Fi relay plug for 120V loads
FLOW-VORTEX	Vortex flow meter, 3/4 in, 1.3-26.4 GPM
FLOW-ULTRA	Ultrasonic flow meter, 1 in, 0.26-63.4 GPM
FLOW-ULTRA-HI	Ultrasonic high-flow meter, 2 in, 1.32-264 GPM

Nuravine LLC
1574 New York 28, West Hurley, NY 12491, USA
nuravine.com · (845) 668-6613 · info@nuravine.com

Specifications are subject to change without notice. Nuravine products are continuously improved; confirm critical parameters with Nuravine before system design. This document is for informational purposes and does not constitute a warranty of performance.