



GENERAL INFORMATION

RAYN Touch is a multi-zone lighting controller designed for horticultural research projects that can be used to define and activate spectra (lighting states) containing multi-waveband lighting fixtures, dimmers and relays. The system can connect to various sensors and report their feedback. The system can activate spectra manually, by timed event programming in a day or crop plan, or by override. It can calculate Daily Lighting Integral (DLI) values based on sensor feedback and control the overall lighting of a zone to maintain a target DLI as set by the user.

RAYN Touch can control devices (multi-waveband lighting fixtures, dimmers and relays) using DMX-512A, sACN or Art-Net Ethernet-based protocols or 0–10 VDC control signal using a separate gateway device. Devices and environmental sensors are assigned to up to 10 individually controllable zones. Store the devices into individual spectra using a graphical waveband display or numerical entry and then activate those spectra manually, or by time of day in day plans. Use crop plans to link multiple day plans together for automated activation. In systems that include light sensors, RAYN Touch can calculate DLI values for spectra and offers control settings to achieve that DLI over the course of a day plan.

Each RAYN Touch controller includes one direct up to 5 Ethernet-distributed data lines. A single data line may control up to 32 Rosa or other fixtures directly, or more when distributed via Ethernet to gateway devices.

PRODUCT FEATURES

- Multi-zone operation with fully independent control in up to ten zones
- Supports up to 80 separately controllable luminaires or relays
- Supports luminaires with any number of independent wavebands
- Support for recording and playback of 200 lighting states (spectra)
- Day plans containing 400+ sets of states
- Crop plans containing sets of day plans and their iterations
- Real-time clock for precise timing
- Gentle transitions between spectra with adjustable times
- Fully-interactive touchscreen with pinch, zoom and displace actions
- 24 VDC powered

ORDERING INFORMATION

RAYN Touch

MODEL	DESCRIPTION
RAYN TOUCH 902	RAYN Touch controller, North America 902 MHz (U)
RAYN TOUCH 868	RAYN Touch controller, Europe 868 MHz (Y)

RAYN Sensors

MODEL	DESCRIPTION
RPS	RAYN Photo Sensor
RMS	RAYN Multi Sensor

PRODUCT SPECIFICATIONS

FUNCTIONAL

- Up to 10 independent zones each with independent control of up to 80 luminaires or devices
- Environmental sensing capture and logging
- One DMX output connection supporting up to 512 lighting addresses
- Five DMX connections over Ethernet of sACN/Art-Net supporting up to 2560 lighting addresses
- Auto-DLI function for light regulation (requires RAYN Photo Sensor)
- Supports playback of spectra with one active at any time in a given zone
- Spectral diagram controller
- On-board help system
- Supports RAYN Photo and Multi Sensors (light / temperature-CO2-humidity) in each zone with sensing capture, graphical history display and logging, Auto-DLI control with RAYN Photo Sensor

PROTOCOL

- Support for DMX-512A (ANSI E1.11), RDM (ANSI E1.20), sACN (ANSI E1.31), and Art-Net
- Built-in EnOcean® interface for wireless capture of environmental data from dispersed sensors. (frequencies available for each ITU jurisdiction)
- Optional 0–10 VDC interface via gateway

MECHANICAL

- 7" color multi-touch touchscreen with adjustable backlight
- 800 x 480 screen resolution
- Cast zinc bezel finished in fine-textured black powder coat paint

ELECTRICAL

- 10 W nominal power consumption. 1 A @ 24 VDC
- 24 VDC power input
- RJ45 Ethernet connector, for 10BASE-T and 100BASE-TX
- DMX-512A control wiring via 5-pin XLR connector
- USB port for firmware maintenance, file transfer, and show file storage
- Antenna port for enOcean communication

DMX512 LUMINAIRE CONTROL PORT

- 5-pin XLR connector designed for use with twisted pair signal cable
- Fully optically-isolated from controller electronics
- Withstands fault voltages up to 250 VAC
- Additional lines of control available with optional Ethernet-based gateways

THERMAL

- Ambient temperature: 0°–40°C (32°–104°F)
- Ambient humidity: 5–95% non-condensing

REGULATORY AND COMPLIANCE

- CE compliant
- RoHS compliant
- WEEE
- FCC
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PHYSICAL

RAYN Touch Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
RAYN TOUCH	6.25	159	8.40	213	3.77	96

