

Growhouse Evaluation Kit for Digital Transformation

Wireless gateway sensing and control modules with mobile application and cloud dashboard.

The Growhouse Evaluation Kit from Arrow provides sensing, monitoring and control of an indoor farming operation. The kit features Analog Devices signal conditioning, converter and power management technology and includes ruggedized enclosures for deployment of a gateway device, soil monitoring node, and an LED node. The Bluetooth® and Zigbee connectivity is provided by a pre-certified module from Silicon Labs. Mobile applications enable quick configuration and control of the system, and a cloud dashboard allows for the publishing of data for monitoring, reporting and alarming.



> Features

- Sense, measure and interpret using Analog Devices signal conditioning, analog-to-digital converters for highly accurate and sensitive measurements
- Analog Devices® Power by Linear™ technology
- IoT Gateway for data aggregation and centralized control
- Soil node for monitoring soil moisture and PH levels
- LED node for dimming control of up to six channels on a third-party light engine
- The Light Engine is powered by OSRAM's OSOLON® SQUARE High-Power LEDs
- Bluetooth and Zigbee connectivity using Silicon Labs modules
- Ruggedized enclosures with IP67 rated connectors from Amphenol
- Kits include all necessary sensors and cables for installation and integration
- iOS & Android Mobile applications for system configuration and control
- Cloud dashboard through Arrow Connect

Specifications	
Operating Temp	0 – 50 degrees C
Power	
Gateway	12 VDC @2A
Soil Node	2x AA batteries
LED Node	12 VDC @2.5A
Sensors	
Soil	Atlas Scientific ENV-40-pH
Humidity	Meter Group DECAON EC-5 MOISTURE with 3.5-mm stereo plug connector
Light Engine Control	
Dimmer Channels	Up to 6 channels
Dimmer Voltage	0V to 10V
Application Support	
Mobile Support - Growhouse	App for Android available
Mobile Support	Android and iOS app available. iOS version can control LED node without gateway via BLE MESH
Web Support	Dashboard through ARROW Connect
Supported Protocols	HTTPS & MQTT from Gateway to Cloud
Third Party Cloud Integration	Support through Microsoft Azure and Amazon Web Services
Scalability	
Max number of Connected Devices	12