

**Digital Signal Isolator
for GrowNET™ Systems**

Specifications

Input Power	1A@12-24Vdc  Class II / Limited Energy Power Supply
Max Device Current	1A
Port 1	RJ-45 GrowNET™ From Hub/Controller
Port 2	RJ-45 GrowNET™ To Device
Isolation Rating	3kV
Data Indicator	LED
Enclosure Rating	TYPE 12 NEMA
Protocols Supported	MODBUS RTU



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KEEP THESE INSTRUCTIONS

This product is intended for commercial use only.

REV 03/26

Warnings & Notices

This is a precision electronic instrument which requires proper installation and care to maintain reliability.

READ & UNDERSTAND ENTIRE MANUAL PRIOR TO INSTALLATION OR OPERATION.

Failure to read, understand and comply with warnings and installation requirements may result in property damage, personal injury or death.

WARNING

Do not use a power supply other than the intended or included power supply. Do not exceed the maximum ratings on the product serial label or specifications listed in this manual. Any power supply with energy levels exceeding the specifications must be current limited or fused to prevent overcurrent to the device.

NOTICE

GrowNET™ ports use standard RJ-45 connections but are NOT compatible the Ethernet network equipment. *Do not connect GrowNET™ ports to Ethernet ports or network switch gear.*

DIELECTRIC GREASE

Dielectric grease is recommended on RJ-45 GrowNET™ connections when used in humid environments. Place a small amount of grease onto the RJ-45 plug contacts before inserting into the GrowNET™ port. *Non-conductive grease is designed to prevent corrosion from moisture in electrical connectors.*

- Loctite LB 8423
- Dupont Molykote 4/5
- CRC 05105 Di-Electric Grease
- Super Lube 91016 Silicone Dielectric Grease
- Other Silicone or Lithium based insulating grease

INDOOR LOCATIONS ONLY

This product is designed for indoor mounting only and must be protected from weather and direct sunlight.

NOTICE

Do not spray the equipment with water or chemicals. Protect equipment from direct water exposure. If installing the equipment in the growing environment a weather proof enclosure is recommended.



WARNING

This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Features

isoLINK™ modules connect inline with GrowNET™ communication cables to “isolate” devices with high electrical noise from the control system. They can also be used to extend connection distances and inject power to devices from the module’s power supply.

- Outdoor cable runs, weather stations
- Extending cable length
- Running cable through harsh environments
- Interfacing with noisy electrical equipment

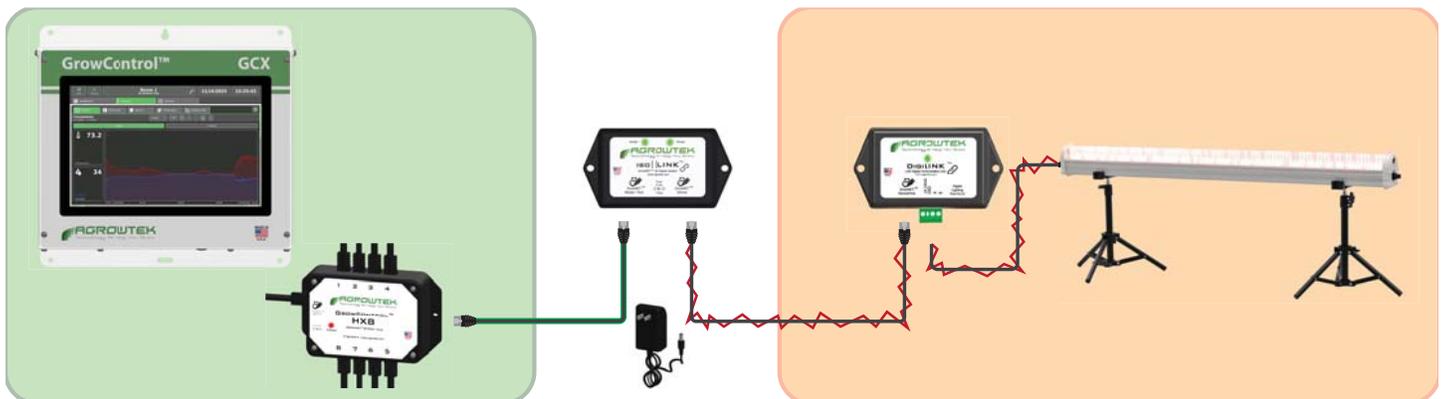
isoLINK™ modules are commonly used to isolate GrowNET™ lighting control modules when the fixtures cause interference with network communications.

The isoLINK™ is installed between the control system’s GrowNET™ device network, and another GrowNET™ device or network providing up to 3kV of isolation. A 24Vdc power supply is included for the module.

Supports GrowNET™ and MODBUS RTU protocols up to 115kbps.

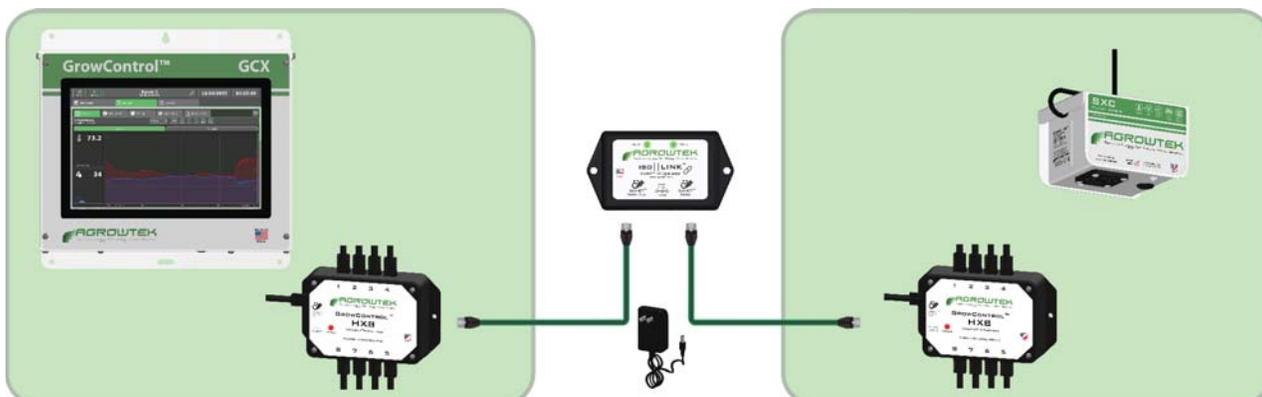
Noise Isolation

Many low-cost fixtures can feed back electrical noise into the system causing problems with system operation. The isoLINK™ module prevents this noise from reaching the control system.



Range Extension

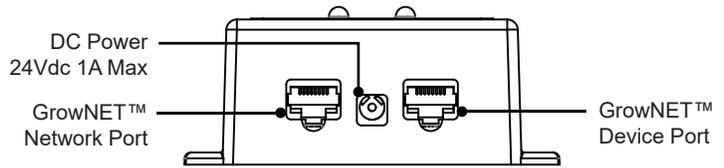
LX5 isoLINK™ modules allow range extension for distances greater than 100ft, or when connecting networks between buildings or outdoor locations.



Installation

The LX5 isoLINK™ is installed between the GrowNET™ control network and the noisy device, or the device to be extended. The module should be mounted in a convenient location and within 6ft of a power receptacle for the module's wall power supply. Follow all safety warnings and notices at the beginning of this manual.

The module may be installed in a control enclosure, on DIN rail with the optional mounting kit, or to any flat surface using the two mounting flanges.



1. Mount the isolator in a convenient location and within 6ft of a power receptacle for the module's wall power supply.
2. Connect the power supply to the module and plug the power supply into the wall. The "Device" LED should illuminate indicating that the module is supplying power to the device port.
3. Connect the module to the GrowNET™ system, either to a GrowNET™ hub or to a GrowControl™ control system. The "Isolator" LED should illuminate indicating power is being received from the GrowNET™ network.
4. Connect the GrowNET™ device (LXD, DXV4, etc.) to the "GrowNET™ Device" port on the right side of the module.

The iosLINK™ module is now installed and the GrowNET™ device should now be communicating properly with the control system.

Technical Information

Troubleshooting

Problem	Solution
No communications with the connected device.	<p>Check the sensor cable and connections. Ensure water has not entered any connections or caused any corrosion.</p> <p>Bypass the LX5 module and plug the GrowNET™ device directly into the GrowNET™ network.</p> <p>Connect a known working GrowNET device to the LX5 device port; if the device is working, investigate the faulty device or return for service.</p>
"Isolator" LED is Out	<p>The GrowNET™ network cable is not providing power, is damaged, or is disconnected. Bypass the cable with a known good cable to verify the cable fault.</p>
"Device" LED is Out	<p>The external power supply is not delivery power to the isoLINK™ module which will prevent the GrowNET™ device from receiving power.</p> <p>Check for power at the outlet. If power is interrupted, restore power.</p> <p>Once outlet power is confirmed, plug in power supply and check for 24Vdc at the power supply DC barrel plug. If there is low/no voltage, replace the power supply.</p>

Maintenance & Service

Exterior Cleaning

Exterior may be wiped with a damp cloth with mild dish detergent, then wiped dry. Disconnect power before cleaning the enclosure to prevent electrical shock.

Storage and Disposal

Storage

Store equipment in a clean, dry environment with ambient temperature between 10-50°C.

Disposal

This industrial control equipment may contain traces of lead or other metals and environmental contaminants and must not be discarded as unsorted municipal waste, but must be collected separately for the purpose of treatment, recovery and environmentally sound disposal. Wash hands after handling internal components or PCB's.

Warranty

Agrowtek Inc. warrants that all manufactured products are, to the best of its knowledge, free of defective material and workmanship and warrants this product for one (1) year from the date of purchase. This warranty is extended to the original purchaser from the date of purchase. Returns not purchased directly from Agrowtek Inc. must include proof of purchase date otherwise purchase date is considered as date of manufacture. This warranty does not cover damages from abuse, accidental breakage, or items that have been modified, altered, or installed in a manner other than that which is specified in the installation instructions. This warranty is applicable only to products that have been properly stored, installed, and maintained per the installation and operation manual and used for their intended purpose. This limited warranty does not cover products installed in or operated under unusual conditions or environments including, but not limited to, excessive humidity or extreme temperature conditions outside of the specified limits. Agrowtek Inc. must be contacted prior to return shipment of any returns for a return authorization. No returns will be accepted without a return authorization. Customer is responsible for return shipment to Agrowtek Inc. for warranty service. Return authorization number(s) must be printed on the outside of the box or the return may be rejected and returned to the sender. Agrowtek Inc. is not responsible for supplying replacement products or parts in advance of return(s) for warranty claim. The products which have been claimed and comply with the aforementioned restrictions shall be replaced or repaired at the sole discretion of the Agrowtek Inc. at no charge. This warranty is provided in lieu of all other warranty provisions, express or implied. It is including but not limited to any implied warranty of fitness or merchantability for a particular purpose and is limited to the Warranty Period. In no event or circumstance shall Agrowtek Inc. be liable to any third party or the claimant for damages in excess of the price paid for the product, or for any loss of use, inconvenience, commercial loss, loss of time, lost profits or savings or any other incidental, consequential or special damages arising out of the use of, or inability to use, the product. This disclaimer is made to the fullest extent allowed by law or regulation and is specifically made to specify that the liability of Agrowtek Inc. under this limited warranty, or any claimed extension thereof, shall be to replace or repair the Product or refund the price paid for the Product.