

FEATURES

- Cloud-based data storage
- Simple plug and play Ethernet connection to customers LAN
- Clients communicate only with cloud for robust security
- Allows for optional remote startup to reduce cost
- Alarm notification via e-mail or SMS

AIRENET™

For larger facilities with multiple dehumidifiers in one location, Desert Aire's CA3500 controllers allow our dehumidifiers to link together on a simple 3-wire with shield (RS-485) network called AireNet™. The dehumidifiers, temperature/relative humidity sensors and remote display units will be wired in series.

AireNet™ provides the following major features and benefits to the end user:

- Multiple dehumidifiers that are serving the same zone can be programmed to function from a single zone sensor, ensuring optimum efficiency and zone accuracy.
- An optional Remote Display Terminal (RDT) is available to monitor operation and modify set points of any dehumidifier on the network.

AireNet™ allows up to 10 dehumidifiers to be connected and has simple configuration commands for easy start-up. A single RDT can be used to monitor or modify setpoints of all units on the same AireNet™ network. The RDT can easily switch to different units on the AireNet™ network.

Note: An optional remote access point can be added to the network to provide information through cloud-based subscription services.

APPLICATION EXAMPLE

Refer to Figure 1 for a dual zone example. Zone 1 has two dehumidifiers controlling the temperature and humidity of this space. In this zone a single combination temperature and relative humidity sensor has been added to provide the zone conditions to the two dehumidifiers. Each dehumidifier has its own built-in display for commissioning and service.

In Zone 2 there is just one dehumidifier, with built-in display and one zone sensor. While in the office an optional RDT has been added to the AireNet™ loop to monitor all three dehumidifiers.

An optional AireGuard™ Interface port appears on the network in this example to provide cloud-based internet access for the entire network.

AIREGUARD™

AireGuard™ is Desert Aire's optional remote monitoring and alarming service to allow users to easily monitor the performance of the dehumidifier on a cloud-based database at any computer or portable device. For those users with more than one dehumidifier, this system can act as their local building management system where all of the units are available with the same login credentials. All that is required is an Ethernet Internet connection to the AireGuard™ interface box.

Information security is maintained since this is a cloud based system where the client computer only accesses the remote data servers. The unit controllers upload and download the data from that cloud. Communication at the controller takes place on port 80, the same port that any computer uses to communicate with the web. The existing LAN fire wall is maintained and no action from the IT department is required as long as the facility has internet access. Users log onto the cloud-based service to view and interact with data, no further access to your local network is required. This connection will meet all of your IT department's security requirements.

One AireGuard™ interface box is capable of monitoring up to 10 dehumidifiers at a single job site. The AireNet™ cabling links the dehumidifiers to the interface. The exception to this is for the LC and LV series which have an Ethernet connection as standard on each dehumidifier, so these units can avoid the cost of the interface box.

The AireGuard™ interface easily brings the read and write variables in real time to the display screen. It allows the user to adjust set-points remotely as well as monitor all the operating variables.

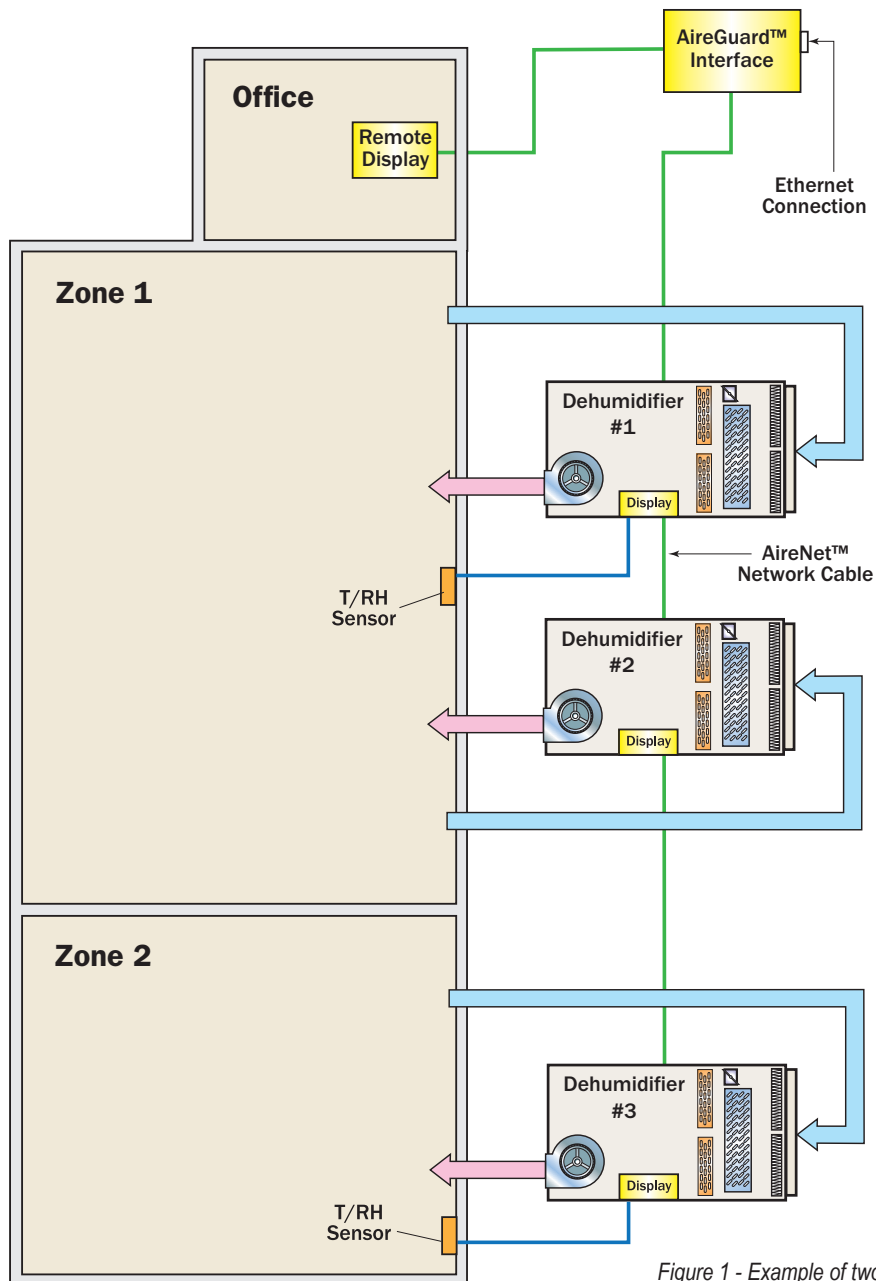


Figure 1 - Example of two zone application

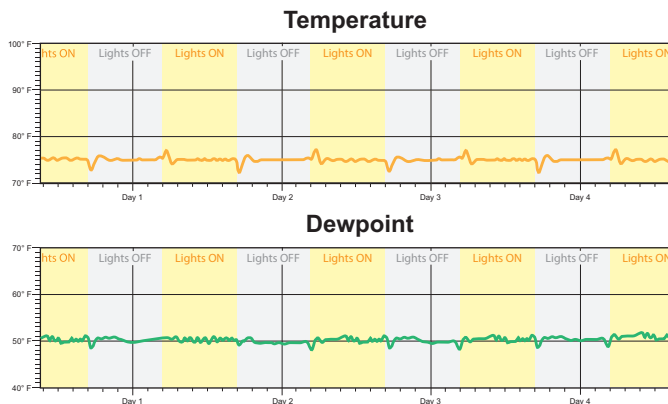


Figure 2 - Example of AireGuard™ graph of historical performance

The LC/LV series have another feature that allows the local display to be duplicated on the cloud based interface. This allows the factory to assist the installing or maintenance personnel in setting up and maintain the system via a remote connection.

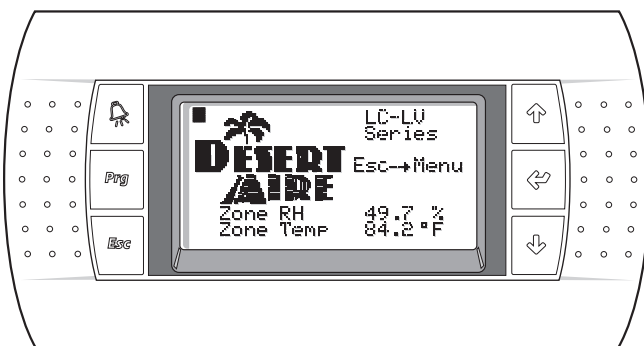


Figure 3 - Example of remote PDG screen for LC/LV series

Since the refrigeration system of a dehumidifier is very complex, many owners hire outside firms to maintain their units. The alarm management feature of AireGuard™ provides the owner with capability of having an email notification communication that provides alarm notification at time of occurrence. With appropriate access to the unit via the cloud, the servicing contractor or Desert Aire may be able to evaluate the unit's alarm with corrective action without visiting the site.

Description: Alarm (1=Alarm, 0=Normal)

Severity: high

Plant: All Units - Network SL

Device: DHU-1

State: Active

Activation Date: 04/06/2017 15:05:40

Figure 4 - Example of text alerts

Two levels of subscription service are available for the owner. Each of these services are contracted for two years of operation and each is at a different cost. Consult your Desert Aire rep for a quotation.

- Remote monitoring with alarm notification via email or text. This provides the owner access to set points, performance over time and also electronic alarm alerts.
- Monthly report generation.
Desert Aire would work with the owner to establish a report format that automatically sends the owner an electronic report on a recurring time frame via email.



OPTIMIZING SOLUTIONS THROUGH SUPERIOR DEHUMIDIFICATION TECHNOLOGY



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