

# HLA HEATLESS DESICCANT AIR DRYER

HLA90 – HLA600

Compression Technologies and Services  
Davidson, NC 28036

Date: 01-Sep-2017  
Cancels: All Previous

## INSTRUMENTATION, OPTIONS AND ACCESSORIES

### Instrumentation

The following instrumentation helps in monitoring dryer operation and performance. Instruments, which are available as options, are also noted.

### Dryer On Light

The dryer on light on the control panel indicates when the dryer is turned on and operating.

### Dryer Off / Warning Light

The dryer off / warning light simply provides a clearly visible indication that the dryer has registered an alarm. The nature of the alarm is displayed on the controller monitor.

### Controls

A microprocessor controller with integrated keypad interface provides instant access to dryer performance controls. The controller is specifically programmed to execute all valve switching functions as well as monitor dryer operation. The controller includes the following:

- Human Machine Interface (HMI): Multi-line, LCD graphic display with keypad navigation to access all user functions including:
  - Quick glance status screen (Dryer ON/OFF, operating status, alarm presence, tower status).
  - Technician mode – Access user adjustments & valve test mode
    - Display settings & Languages

- Communication settings & baud rate adjustment
- Alarm history
- Dryer status functional overview.
- Modbus Compatible (RS485)
- Remote Alarm Contact
- Alarm History Storage
- UL Type 4 Dryer Schematic Panel with LED Indicator Display:
  - Dryer On Light
  - Dryer Alarm Light
  - Left / Right Tower Drying Light
  - Left / Right Tower Regeneration Light

### Electrical Rating – Enclosure Assembly

UL type 4 enclosure supplied as standard. Constructed in accordance with UL/ULC 508A.

### Remote Contact

Two usable dry (voltage free) contacts to allow for hookup of remote audible or visible system malfunction alarms. A normally open and normally closed set of contacts rated for 10 amps and 12V are provided. Contacts change state with dryer power on.

## OPTIONS

### Energy Management System - EMS (Optional)

See separate sheet on optional EMS.

### High-Humidity Alarm (Provided with EMS option)

The sensor triggers a visible alarm if the dew point of the outlet air exceeds the factory setting.

### 4-20 mA Output Signal (Optional – requires EMS)

4-20 mA analog signal for remote monitoring of dewpoint.

### Fail to Shift Option (w/ Muffler Clog Alert)

A left and right tower pressure transducer is provided to allow the controller to monitor tower pressure during the operation of the dryer. The purpose of this function is to provide an alert as a muffler becomes clogged or to stop the operation of the dryer if the appropriate pressure values are not maintained during dryer operation indicating an operational fault condition occurring when a tower does not pressurize or de-pressurize properly during a tower change. The pressure values of each tower will be displayed on the controller screen for each step and the control program will activate an alarm contact if a fault condition occurs.

When equipped with this option, the dryer controller will provide for a diagnostic test sequence for troubleshooting.

### -100°F Dew Point (Optional)

The dryer cycle time is decreased to a 4 minute Nema cycle, 2 minutes for the drying vessel and 2 minutes for the regenerating vessel. The dryer capacity must be de-rated by 20%.

### 3-Valve Bypass (Optional)

A block and bypass valve around the entire dryer package will be supplied on dryer packages for HLA90 to HLA600.

### **Filter Drain Options**

Various filter drain options in addition to the standard float drain style are available including:

- Externally mounted float drain assembly with three valve bypass to facilitate servicing of the float drain. This would be provided for the pre-filter and after-filters and shall be factory installed.
- Electronic no-air loss drain option with drain failure alarm notification integrated to the PLC controller. The electronic no-air loss drain shall be cleanable without the need for replacing the drain module and shall be factory installed & wired to the main dryer control panel to permit single point power connection to the dryer. This would be provided for the pre-filter and after-filters. The control program will trigger an alarm contact if a drain fault were to occur with either the pre-filter or after-filter drain.
  - The alarm for the pre-filter would provide an alert that could help protect the desiccant bed from being flooded due to a drain failure.

### **Filter Pressure Drop Monitoring Options**

There are (2) options available for monitoring filter pressure drop.

- Differential pressure drop:
  - A differential pressure switch with a fixed 10 PSI set-point would be factory installed on the inlet and outlet filters. The switches would be factory wired back to the controller and the program would be configured to provide an alarm notification if the switch were triggered and would activate the general alarm contact.
- Differential Pressure Transducer
  - A differential pressure transducer would be factory installed for the pre-filter assembly and another for the after-filter assembly. When equipped with this option, the controller shall monitor the differential pressure value and trigger the general alarm contact if the pressure value exceeds the alarm set-point value. The set-point can be field adjustable via the controller.

### **High Pressure (Optional)**

For applications above 150 psig contact Marketing.