

APD22-D Automatic Dehydrator, 0.17 SCFM, 230V AC 50/60 Hz

The APD-D series Automatic Pressurization Dehydrator is designed for reliable pressurization of elliptical waveguide, coaxial cable and rigid transmission line systems. Dry pressurized air in the distribution system ensures that condensation is avoided and optimal system performance is achieved.

The dehydrator includes a self-contained completely automated air drying system that utilizes a pressure swing moisture adsorption cycle to provide pressurized dry air while continuously purging the collected moisture to the atmosphere. This eliminates the need for replacement or manual reactivation of the desiccant and makes our APD-D series dehydrators ideal for unattended operation, even at remote sites.

The dehydration system is completely automatic, with no need for periodic media replacement or reactivation. These units are capable of years of trouble-free service when properly installed, operated and maintained. An internal check valve guarantees that the customer system stays isolated from the dehydrator's internal system when the dehydrator is not actively operating. A USB port offers the ability to enable options, update configurations and download operating data in the field for easy upgrade, maintenance and troubleshooting. The alarm port consists of electrically isolated 1 Form C relay contacts that can be used for both local and/or remote monitoring/alarming. Additional standard features include a 0-103 kPa (0-15 psig) pressure gauge and indicating LED lights.

The units may be shelf mounted or placed in a 19" EIA relay rack. A Wall/Rack mount is available as an optional accessory.



Dehydrator

FEATURES / BENEFITS

GENERAL SPECIFICATIONS

Dimensions, H x W x D

Ambient Temperature Range

ENVIRONMENTAL

Net Weight

APD22-D

Product

- Observe Configurable (1-2.5 psig) in 3.4 kPa (0.5 psig) in 3.4 kPa (0.5 psig) in crements
- High Pressure Alarm Software configurable from 20.7-75.8 kPa (3-11 psig) in 6.9 kPa (1 psig) increments
- Humidity Alarm Software configurable from 20-50% RH in 10% RH increments
- Run Time Alarm Software configurable from 10 minutes to 4 hours in 10 minute increments
- System Purge Software configurable from 2-10 days in 2 day increments

Technical Features

| Product | | Denydrator |
|--|-------------|--|
| Dehydrator Type | | Automatic |
| System Capacity | | Standard |
| Max System Volume | I (ft³) | 3000 (106) |
| Output Capacity @ 60 Hz | NI/h (SCFM) | 340 (0.2) |
| Output Capacity @ 50 Hz | NI/h (SCFM) | 280 (0.17) |
| Output Dew Point | °C (°F) | Ambient dew point greater than 10°C (50°F): 50 (90) dew point reduction minimum. Ambient dew point less than 10°C (50°F): -40 (-40) dew point minimum |
| Field Adjustable Output Pressure (on/off) | kPa (psig) | Software configurable from 6.9 -68.9 (1-10) |
| Field Adjustable Output Pressure Deadband (on/off) | kPa (psig) | Software configurable from 13.8-62.1 (2-9) |
| High Pressure Safety Relief Valve | kPa (psig) | 103.4 (15) fixed |
| Number of Outlets | | 1 |
| Output Fitting | | Quick-Connect 3/8" OD Plastic Tube (Note 3) |
| Maximum Continous Operation Time, Active | Hours | 4.0 |
| ELECTRICAL SPECIFICATIONS | | |
| Operating Voltage | V | 230 +/- 10% (Note 4) |
| Frequency | Hz | 47 - 63 |
| Max. Standby Current | A | 0.5 |
| Max. Active Current | A | 2.0 |
| Max. Active Power Consumption | W | 280.0 |
| Max. Apparent Power Consumption | VA | 290.0 |
| Power Factor Correction, typical | typical | 0.8 |
| Electrical Feed Circuit Configuration | | Single phase, 3-Conductor (Phase/Neutral/Ground) (Note 4) |
| Electrical Feed Circuit Size Recommendation | А | 15 (Note 5) |
| Electrical Inlet Connector | | IEC 320 Type C 14 |
| MECHANICAL SPECIFICATIONS | | |

mm (in)

kg (lb)

°C (°F)

242 x 343 x 242 (9.5 x 13.5 x 9.5)

11.4 (25)

0 to 40 (32 to 104)

REV DATE: 22.02.2016

Dehydrator

REV: B

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| Ambient Humidity Range, relative | % | 5-85, non-condensing (max absolute humidity 25g/m³ (0.00156lb/ft³)) (Note 2) | |
|--|-----------|--|--|
| Noise | dBA | 0.0 | |
| Noise | dBA | 60.0 | |
| Max.Operational Altitude @ 34.5 kPa (5 psig) | m (ft) | 1830 (6000) | |
| Max. Operational Altitude @ 68.9 kPa (10 psig) | m (ft) | 1370 (4500) | |
| Capacity derating per 305 m (1000 ft) altitude above MSL | I/h (CFM) | 37 (0.022) | |
| ACCESSORIES | | | |
| Accessory/Spare Part | | Wall/rack mount | |
| ALARMS | | | |
| Alarm Contact Rating | | 1A, 30 VDC, maximum | |
| Low Pressure Alarm | | Standard configuration: Fixed at 3.4 kPa (0.5 psi) below lower operational pressureLow Pressure configuration: Fixed at 1.7 kPa (0.25 psig) | |
| Alarm Configuration | | 1 Form C relay contacts, screw terminal connector | |
| OPTIONS | | | |
| Options | | Low Pressure Operation: Software configurable from 6.9 - 17.2 kPa (1-2.5 psig) in 3.4 kPa (0.5 psig) increments (Note 6) High Pressure Alarm: Software configurable from 20.7-75.9 kPa (3 -11 psig) in 6.9 kPa (1 psig) increments Humidity Alarm: Software configurable from 20-50% RH in 10% RH increments Run Time Alarm: Software configurable from 10 minutes to 4 hours in 10 minute increments System Purge: Software configureable from 2-10 days in 2 days increments | |
| COMPLIANCE | | | |
| Compliance | | CE (EMC, MD, PED, RoHS)IEC 60529, IP20 | |

External Document Links

Access User's Guide, #60240001150, Rev. C, which includes: \r\n• Installation instructions (p. 5)

\r\n• Troubleshooting (p. 6)

\r\n• Operation (p. 8)
\r\n• Alarm pin-out diagram (p. 15)

\r\n\• Parts List (p. 18)
\r\n\• Run Time Calculator (p. 22)

\r\n• Transmission Volume Calculator (p.

23)

Notes

- 1) All specifiactions at 23°C (73°F) and 50% relative humidity at mean sea level (MSL) unless otherwise noted. 2) For indoor use only. IEC 60721-3-3 Class 3k3 (temperature-controlled locations, humidity not controlled) absolute Humidity AH 25 g/m³ (0.00156 lb/ft³) @ 29.4°C (85°F) => 85 % relative humidity RH absolute Humidity AH 25 g/m³ (0.00156 lb/ft³) @ 40°C (104°F) => 48.8 % relative humidity RH
- 3) Tubing used must be polyurethane (durometer 95A), polyethylene (durometer 440), or nylon (durometer 500)
 4) Voltage source per IEC 60038 (1/N/PE)
 *** Not for use with North American 240VAC service ***

- 5) Electrical supply circuit must retain within operating voltage specifications at all times.
- 6) Lower Operating Pressure set to 3.4 kPa (0.5 psig). Low Pressure alarm set to 1.7 kPa (0.25 psig)
- 7) The power cord is not included because the standard depends on the country where the dehydrator will be installed. It has to be purchased separately.

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