

APD-22-C Automatic Dehydrator, with LP alarm, 0.17 SCFM, 230V 50 Hz

Product Description

The APD20-C series Automatic Pressurization Dehydrator is designed for reliable pressurization of elliptical waveguide, coaxial cable and rigid transmission line systems. The dehydrator includes a self contained completely automated air drying system that utilizes a pressure swing moisture absorption 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 APD20-C and APD70-C series dehydrators ideal for unattended operation at even remote sites. Dehydrators are also suitable for the average manned working environment since they typically run less than 5% of the time. In most normal applications, APD series dehydrators can be expected to operate for up to five years before any maintenance activities are required.

The APD-20 is rated at .2 SCFM(.09 liter/sec) and -40°F (-40°C) dry air dew point output at a 95°F (35°C) 95% relative humidity input. For normal room environments the dehydrator output air has a typical dew point of -55°F (-46°C). System pressure is controlled by the dehydrator pressure switch settings. Normally, this is factory adjusted to 3 psig (20.7kPa) "on" and 5 psig (34.5 kPa) "off", but may be readjusted in the field to operate anywhere between 2 and 15 psig (13.8 kPa and 103.4 kPa). An internal 40 psig check valve guarantees that the customer system stays isolated from the dehydrator's internal system and prevents loss of system pressure due to leakage in the dehydrator. For additional safety, a standard low pressure alarm switch factory-set at 1 psig (6.9 kPa), is installed in the dehydrator. The alarm switch contains a set of SPST contacts that can be used for both local and remote monitoring or alarming. Additional standard features include a 0-15 psig pressure gauge, indicating power light, and a visual moisture monitor which is dark blue when dry and turns pink when wet.

The units may be shelf mounted or placed in a 19" EIA relay rack. A vented back cover for the dehydrator may be ordered as an optional accessory.



Dehydrator

Features/Benefits

Technical Specifications

Product	Dehydrator
Dehydrator Type	Automatic
System Capacity	Standard
Operating Voltage	230V 50/60 Hz
60 Hz Output Capacity, liters/sec (SCFM)	0.09 (0.2)
50 Hz Output Capacity, liters/sec (SCFM)	0.08 (0.17)
Output Dew Point	-40°C (-40°F)
Ambient Inlet Temperature, °C (°F)	1 - 49 (33 -120)
Ambient Humidity % maximum	95
Factory Set Output Pressure (on/off), kPa (psig)	20.7-34.5 (3/5)
Field Adjustable Output Pressure (on/off), kPa (psig)	13.8-103.4 (2-15)
Output Differential Output Pressure (on/off), kPa (psig)	13.8 (2) minimum
Compressor Rating	1/12 hp
Pumping Power Consumption, Watts	350
Idle Power Consumption, Watts	10
Low Pressure Alarm	Factory set for 1 psig. (P/N 916814-001) 0.5 psig differential.
Output Fitting	1/8" FPT to 3/8" plastic tube fitting
Dimensions, H x W x D, mm (in)	297 x 382 x 203 (11.7 x 15 x 8)
Net Weight, kg (lb)	14.1 (31)

Notes

Other Documentation



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APD-20/22 Maximum Dehydrator Capacity Ratings

Transmission Line	Approximate Length Feet (m)
7/8"	21,000 (6,400)
1-5/8"	7,000 (2,100)
3-1/8"	2,100 (600)
6-1/8"	500 (150)
6 to 12 GHz Waveguide	8,000 (2,400)
4 to 5 GHz Waveguide	4,000 (1,200)

Based on 2 psi leakage in 24 hours and 5% running time for 60 Hz operation. For 50 Hz operation, multiply capacity ratings by 5/6 (a reduction of 17%).

Capacity Ratings

All information contained in the present datasheet is subject to confirmation at time of ordering