RADITEK INC.

RoHS COMPLIANT

code-z24

Waveguide Pressure Dehydrator, 0 to 15 PSIG

1/4″ NPT Female Tube

Features and Benefits

Clean, dry, low-pressure air supply
Little to no maintenance
Simple installation
System low pressure alarm (adjustable)
Excessive run-time alarm (>2 min.)

1 outlets to suit ¼" OD Tube

Panel Components	
A	Power switch
B	System pressure gauge – indicates internal reservoir pressure
C	Output pressure gauge – indicates output pressure
D	Compressor runtime meter
E	Regulator knob for output pressure adjustment

The "Standard" dehydrator is an automatic, membrane-type dehydrator, designed specifically for the antenna and transmission line industry. The RWPD-0-15PSIG-1(0.25"Tube)-z24 is recommended for use in any antenna waveguide or transmission line. Moisture within these systems can cause a variety of problems, including RF reflections and high return losses, arcing, oxidation, and corrosion. By applying a low pressure, dry air source to these devices, these negative effects of moisture can be significantly reduced or eliminated. The adjustable output pressure from the RWPD-0-15PSIG-1(0.25"Tube)-z24 is high enough to provide a positive pressure inside the transmission device, but low enough to be safe even for fragile, sensitive components within the system. This unit is designed to be a simple, low maintenance, "plug-&-play" unit.

Order Examples: **RWPD-0-15PSIG-1(0.25"Tube)-z24**
Description: *(Waveguide Pressure Dehydrator, 0-15 Psig, Single outlets to suit ¼" OD Tube)*

Specifications	
General Specifications	
Regeneration Method	Automatic, demand
Dew point, output	-20°F pressure dew point
Dew point, output	
Dimensions	18.25″ x 18.75″ (17.75″ with handles) x 9.5″ (464mm x 476mm x 241mm)
Weight	44 lbs (20Kg)
Mounting	Free Standing
Power	120 VAC 50/60 Hz

Motor	RPM	AMPs	HP	KW
110-120 or 200-240 VAC(60 Hz)	1725	1.8/1.0	1/4	0.19
110-120 or 200-240 VAC(50 Hz)	1425	3.1/1.5	1/4	0.19
Compressor Type	Oil-less, diaphragm, 1/4 HP motor			
Output				
Flow rate	1.4 cfm @ 1 psig			

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
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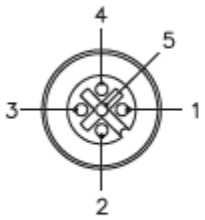
Dry air output connection	1/4″ NPT female 3/8″ and 1/4″ OD tube push-to-connect fittings included
Control	
Output pressure adjustment range	0 – 15 psig
Alarm relays	Low Pressure Excess Run Time
Standard Alarm Connections: (A 2m alarm cordset is provided with each free standing enclosed dehydrator.)	MATING ALARM CORDSET PINOUT FEMALE END VIEW  1 = BROWN : RUNTIME ALARM COM 2 = WHITE : RUNTIME ALARM 3 = BLUE : NO CONNECT 4 = BLACK : LOW PRESSURE ALARM COM 5 = GREY : LOW PRESSURE ALARM Example mating cordset P/NS: FK 4.5T--* WK 4.5--* (* Indicates cordset length in Meters)
Environmental	
Operating temperature	40°F to 104°F (5°C to 40°C)
Noise Level	< 65 dBA

Installation

Use the included mounting brackets to mount the unit into a standard 19-inch equipment rack.

Check transmission line pressure rating before connecting dehydrator, to avoid damage to system!

Connect the air output of the dehydrator to the transmission line or waveguide assembly via the ¼” NPT female outlet. Use either of the included tubing fittings, or a user-supplied connector

Ensure that the unit’s pre-filter drain outlet is directed away from any electrical or other sensitive equipment. A short piece of ¼” OD tubing is supplied for this purpose.

Connect external alarms as desired. These are dry contact, relay-type alarm outputs, as shown: See alarm specification sheet. NOTE- Custom and customer specific units may have optional alarms – see additional documentation as needed.
Connect supply voltage. 120VAC units are supplied with a standard NEMA 5-15 male wall plug; 240VAC units are supplied with flying leads (qualified personnel should supply and install appropriate mating connection).
Purge the transmission line as follows:

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• Divide the total system volume, in cubic feet, by the flow rate of the dehydrator (84 CFH). This is the number of hours necessary for one purge cycle.
• Open the far end of the transmission line or waveguide.
• Turn the dehydrator on using the power switch on the front panel, and let the unit run for at least three (3) purge cycles. Ignore any alarms you get while purging.
• After transmission line is purged, close the far end of the line.
• **Examples:**

System volume = 42 cubic feet 42/84 = 0.5 hours Run dehydrator **1.5 hours** to purge.	System volume = 10.5 cubic feet 10.5/84 = 0.125 hours Run dehydrator 0**.375 hours** to purge.

Maintenance/Troubleshooting

The dehydrators are designed to require very little regular maintenance. An annual inspection is recommended, and should include the following checks:
• Visual inspection of particulate and coalescing filter element. Replace element if dirty or damaged.
• Inspect entire system for audible compressed air leaks. Repair as necessary.
Please contact us for replacement filter elements.

Symptom	Solutions
The dehydrator does not power on.	Ensure that the dehydrator is connected to appropriate power source (120/240 VAC). Ensure that the main On/Off switch is in the ON position.
The Low Pressure Alarm is on.	Block the output port from the dehydrator to ensure the unit will hold pressure. If so, examine downstream system for leaks, and repair as necessary. If the unit will not hold pressure, contact Raditek.
The Excess Runtime Alarm is on.	Verify that the compressor is, in fact, running. Block the output port from the dehydrator to ensure that the unit will build and hold pressure. If so, examine downstream system for leaks, and repair as necessary. If the unit will not hold pressure, contact Raditek.

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