

Waveguide Pressure Dehydrator, 20 to 40PSIG 10mm Pneumatic Lock Tube, 20-40mbar

Moisture in Waveguide systems inhibits the flow of the RF Signal, it can cause internal arcing and corrosion build up

This is an energy saving integrated unit designed specifically to supply low pressure dry air to pressurized waveguide systems via 10mm ID tubing.

It's low noise level allows the equipment to be sited in manned areas if necessary.

Housed within are the compressor, desiccator, humidity detector and all electrical and pneumatic control circuits. The use of an integral dry air receiver allows the compressor to run intermittently, leading to longer compressor life and lower energy consumption.

utilizes a well proven heatless reactivation system capable of supplying dry air at a dewpoint of better than -35°C.

Air is supplied through the outlets at low pressure, reduced by the output regulator to between 20 and 40mbar.

200 litres per hour (7 ft³/hr).



6 ways Distributor units

Order Examples: RPD-20-40PSIG-10mm-30mbar-1-a18

Description: (Pressure Dehydrator, 20-40Psi, 10mm Pneumatic connectors, 30 mbar 1 output)

Addition option:

-6 ways output (Distributor unit)

Specifications	
Environmental Considerations	
Operating Voltage	230V A.C. (+10%/-6%) 50Hz single phase
Maximum current consumption	1.2A (compressor running)
Operating temp	5 to 40°C
Dimensions	Suit 19" equipment rack, occupies 3U - 482mm wide x 133.3mm high x 400mm deep
	Distributor units: 482mm wide x 133.3mm high x 110mm deep
Weight	18.3kg
Operational Features	
Compressor	- 1/16HP rocking single cylinder piston compressor 7 bar (100 psi)max. Stop/start pressure 1.4-2.8 bar (20-40 psi)
	- Minimal transmission of vibration, compressor fitted via rubber mounts within subframe.
	- Intake filter fitted with replaceable element

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Specifications may be subject to change

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Safety Relief Valve	<ul style="list-style-type: none"> - 60psi setting to protect the dehydrator against overpressure - output "high pressure" relief valve set to exhaust at 50mbar as protection for the aerial feeder(s)
Air Drier	<ul style="list-style-type: none"> - Twin bed heatless pressure – reactivated adsorption type. Each bed online 1min/regenerating 1 min. - Automatic changeover by electro-mechanical process timer with memory - Desiccant, grade 4A molecular sieve, 3-5mm - Inlet and outlet filtration by sintered 35 micron bronze filters at each drier bed port
Humidity Detection	<ul style="list-style-type: none"> - Output dewpoint detection circuit with associated indication - Automatic bypass to atmosphere of any insufficiently dried air. - Set to operate at -18°C - "Blue" colour coded humidity sensing element - Fail safe operation
Dry Air Storage	<ul style="list-style-type: none"> - Integral moulded polyethylene air storage vessel to provide reserve of dry air - Capacity 0.7 litres
Specifications	
Dry Air Output	
Pressure	<ul style="list-style-type: none"> - Regulated output 20-40mbar (nominally set at 30 mbar) - Controlled by a front panel mounted (relieving type) tamperproof regulator.
Flow	- Exceeds 7 ft ³ /hr (200 litres/hour) during normal operation
Dewpoint	- Better than -35°C
Connection	<ul style="list-style-type: none"> - A single outlet at the rear and intended for 10mm ID hose to connect to an aerial feeder. - 6 ways Distribution Unit converts a single input into 6 outputs, each with an isolation valve. A 0-100mbar input pressure gauge is also provided.
Protection	- Safety relief valve operates above 45mbar, exhausting excess pressure present at the output to atmosphere
Alarm Indication	
Visual	<ul style="list-style-type: none"> - Power (Mains Failure) - High Humidity (Drier Failure) ie output being bypassed to atmosphere - Low (Output) Pressure – user adjustable, but factory set at 10mbar
Extended	- each of the above conditions can be extended individually; clean volt-free contacts rated at 7A being provided as both normally open and normally closed; accessed via a 25 way "D" connector
Monitoring/Control	
Electrical	<ul style="list-style-type: none"> - Combined illuminated on/off switch and circuit breaker incorporating thermal protection rated at 5A to protect mains circuitry - Total running hour meters to indicate use of compressor - Low output pressure alarm lamp - Drier failure (High humidity) alarm lamp
Pneumatic	<ul style="list-style-type: none"> - 50mm dia. "Compressor" pressure gauge 7bar (0-100psi) - 50mm dia. "Receiver" pressure gauge 4bar (0-60psi) - 63mm dia. "Output" pressure gauge 0-100mbar - Pressure regulator to adjust output pressure 5-100mbar (set to deliver 20-40mbar)
Suitability for Application	
Application	<p>The unit is capable of delivering in excess of 200 litres/hour (7ft³/hr) of dry air during normal operation at an output pressure of 20-40 mbar (0.28-0.56psi).</p> <p>It is recommended that for most applications the unit should run at a duty cycle of approximately 50% (12hrs/day); this means that the total flow should ideally not exceed 100 litres/hour.</p>
Note	No harm will occur to the equipment if the 50% duty cycle is exceeded, but at these higher levels, the reserve capacity (which may be required to deal with faults or emergencies) is reduced and the frequency of routine maintenance increased.