

Pressure Swing Dryers

Pressure Swing dryers provide a source of very dry compressed air for use as a zero gas in humidity calibration systems, or for general laboratory applications.

PSD2 & PSD4 Pressure Swing Dryers



The Michell PSD Series Pressure Swing Dryers use two columns filled with 4Å molecular sieve desiccant, which are used alternately on a switching cycle. The PSD dryers are designed to operate continuously, using a small proportion of the dried air to regenerate the offline column - generally giving desiccant life in excess of five years. This type of heatless regeneration uses significantly less energy than a 'heated' dryer.

The PSD2 is fitted with inlet and outlet pressure regulation, and delivers up to 7 NI/min (14.8 scfh) of dry air with a moisture content of 1 ppm_v or better.

The PSD4 is supplied with stainless steel internals and larger volume desiccant columns. These factors, combined with high integrity VCR couplings deliver an output of up to 90 NI/min (optional) with a moisture content better than 14 ppb_v.

Highlights

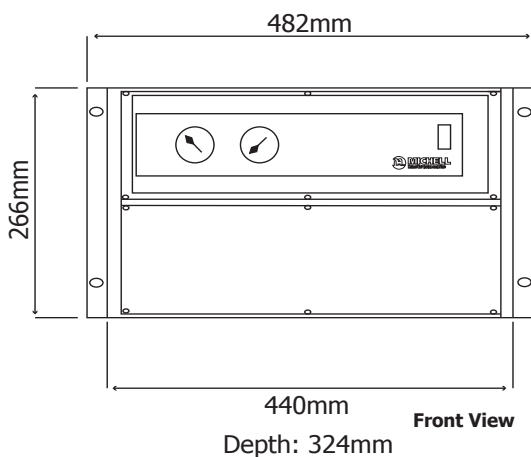
- Excellent long-term stability
- Maintenance free except for a desiccant change once every 5 years
- Completely self-contained
- Low power consumption

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice.
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Technical Specifications

Model	PSD2	PSD4-STD (Standard)	PSD4-HFV (High flow volume)	PSD4-HPO (High pressure output)
Performance				
Gas output				
Flow	7 NI/min (14.8 scfh)	30 NI/min (63.6 scfh)	90 NI/min (109.7 scfh)	30 NI/min (63.6 scfh)
Pressure		4.8 barg (70 psig)		User-settable up 8 barg (116 psig)
Moisture content	<1ppm _v	<13.8 ppb _v		
Input Requirements				
Gas supply				
Flow	10 NI/min (21.2 scfh)	45 NI/min (95.4 scfh)	105 NI/min (222.5 scfh)	45 NI/min (95.4 scfh)
Pressure	5...7 barg (70...100 psig)	6...10 barg (87...145 psig)		
Moisture content	Oil and liquid water-free	<16ppm _v		
Electrical Input				
Power	100...115 OR 220...240 V AC, 50/60 Hz	100...240 V AC 50/60 Hz		
Power Connection	IEC socket			
Environmental Conditions				
Operating temperature	+5...+35 °C (+41...+95 °F)	+10...+40 °C (+50...+104 °F)		
Storage temperature	-40...+35 °C (-40...+95 °F)	-40...+50 °C (-40...+122 °F)		
Mechanical Specifications				
Type	Twin column desiccant, pressure swing			
Desiccant	4 Ångström Molecular sieve bead (4-8 mesh)			
Amount required (approx.)	2 kg	3.5 kg		
Timer	Mechanical cam	Programmable relay		
Gas connections				
Inlet	Swagelok® ¼"	¼" Swagelok® Tube		
Outlet	Swagelok® ¼"	¼" VCR Swagelok®	½" VCR Swagelok®	¼" VCR Swagelok®
Filters				
Outlet	None	Millipore Wafergard IIF Micro Inline (sealed type) with PTFE membrane element rated at >99.999% retention of 0.003µm particles		
Vent	None	Bonded glass microfiber rated at >99.999 % retention of 0.1 µm particles		
Construction	Rack mount: 19" x 6U x 324 mm (12.8")	304 stainless steel wall mounting enclosure: 800 x 600 x 300 mm (31.5 x 24 x 12")		
Weight	12.5 kg (27.5 lbs)	30 kg (66 lb)	35 kg (77 lb)	32 kg (70 lb)

Dimensions – PSD2



Dimensions – PSD4

