

# 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



### Technical Specifications

Model	PSD2	PSD4
<b>Gas output</b>		
Flow	7 NI/min (14.8 scfh)	30 NI/min (63.6 scfh)
Pressure	0.68 barg (10 psig)	Atmospheric
Moisture content	<1ppm <sub>v</sub> (<-75°Cdp (-103°Fdp))	<13ppb <sub>v</sub> (<-100°Cdp (-148°Fdp))
<b>Required gas supply</b>		
Flow	10 NI/min (21.2 scfh)	20 NI/min (42.2 scfh)
Pressure	5 to 7 barg (70 to 100 psig)	6 to 7 barg (80 to 100 psig) and ≤-40°Cdp (≤-40°Fdp)
Moisture content:	(Oil and liquid water-free)	(Oil and liquid water-free)
<b>Suitable for use with</b>	DG2, DG4, HG10	VDS3
<b>Type</b>	Twin column desiccant, pressure swing	Twin column desiccant, pressure swing
<b>Desiccant</b>	4 Ångström Molecular sieve bead (4-8 mesh)	4 Ångström Molecular sieve bead (4-8 mesh)
<b>Timer</b>	Motorized cam	Motorized cam
<b>Gas connections</b>	Inlet - Swagelok® AISI ¼" tube bulkhead Outlet - Swagelok® AISI ¼" tube bulkhead	Inlet - Swagelok® stainless steel ¼" tube bulkhead Outlet - Swagelok® stainless steel ¼" tube bulkhead
<b>Filters</b>	None	Outlet – Millipore Wafegard IIF Micro Inline (sealed type) with Teflon PTFE membrane element rated at >99.999% retention of 0.003 micron particles Vent – Headline nylon housing with epoxy ester bonded borosilicate glass microfiber element rated at 99.999% removal of 0.1 micron particles
<b>Power</b>	100 to 115 or 220 to 240 V AC, 50/60Hz	100 to 115 or 220 to 240 V AC, 50/60Hz
<b>Cable entry</b>	IEC (3 pin female c13) input socket	Plastic cable gland - suitable for ø4-8mm cable
<b>Operating temperature</b>	+5 to +35°C (+41 to +95°F)	+10 to +40°C (+50 to +104°F)
<b>Storage temperature</b>	-40 to +35°C (-40 to +95°F)	-40 to +50°C (-40 to +122°F)
<b>Construction</b>	Rack mount, 19" x 6U x 324mm (12.8")	GRP wall mounting enclosure; 735 x 535 x 270mm (29 x 21 x 10.5")
<b>Weight</b>	12.5kg (27.5lbs)	25kg (55lbs)

The Michell PSD Series Pressure Swing Dryers use two columns filled with 4Å molecular sieve desiccant, which are used alternately on a two-minute 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 also uses significantly less energy than a 'heated' type of dryer.

The PSD2 is fitted with inlet and outlet pressure regulation, and delivers up to 7 NI/min (14.8 scfh) of dry air at 1ppm<sub>v</sub> or better (-75°Cdp (-103°Fdp)).

The PSD4 is supplied with stainless steel internals and larger volume desiccant columns. These factors, combined with a larger pressure drop between inlet and outlet, deliver up to 10 NI/min (21.2 scfh) at 13 ppb<sub>v</sub> or better (-100°Cdp (-148°Fdp)).

### Highlights

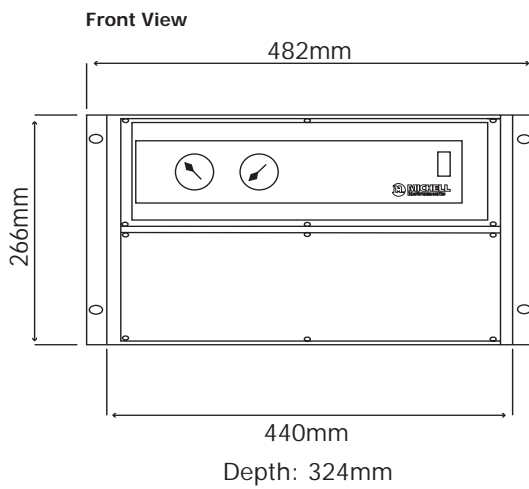
- Excellent long term stability
- Maintenance free except for a desiccant change once every 5 years
- Completely self-contained
- Low power consumption

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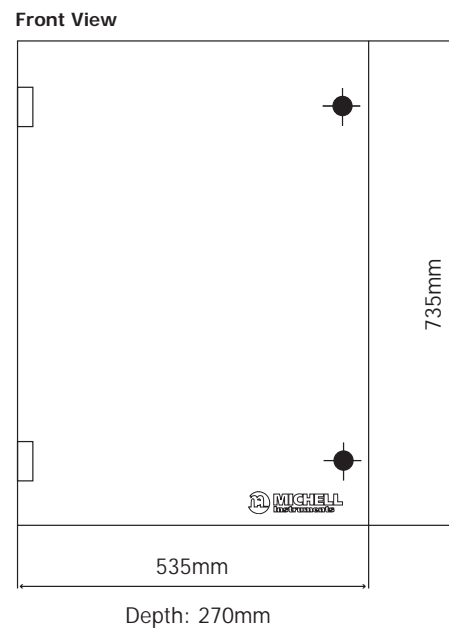
Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version.

# Pressure Swing Dryers

## Dimensions - PSD2



## Dimensions - PSD4



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