

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 |
|--|---|--|
| Gas output | | |
| Flow 7 NI/min (14.8 scfh) | | 30 NI/min (63.6 scfh) |
| Pressure 0.68 barg (10 psig) | | Atmospheric |
| Moisture content <1ppm ($<-75^{\circ}\text{Cdp}$) ($<-103^{\circ}\text{Fdp}$) | | <13ppb ($<-100^{\circ}\text{Cdp}$) ($<-148^{\circ}\text{Fdp}$) |
| Required gas supply | | |
| 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) |
| Moisture content: (Oil and liquid water-free) | | and $\leq -40^{\circ}\text{Cdp}$ ($\leq -40^{\circ}\text{Fdp}$) (Oil and liquid water-free) |
| Suitable for use with DG2, DG4, HG10 | | VDS3 |
| Type Twin column desiccant, pressure swing | Twin column desiccant, pressure swing | |
| Desiccant 4 Ångström Molecular sieve bead (4-8 mesh) | 4 Ångström Molecular sieve bead (4-8 mesh) | |
| Timer Motorized cam | Motorized cam | |
| Gas connections | Inlet - Swagelok® AISI 1/4" tube bulkhead Inlet - Swagelok® stainless steel 1/4" tube bulkhead Outlet - Swagelok® stainless steel 1/4" tube bulkhead | |
| Filters None | Outlet - Millipore Wafergard | 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 | |
| Power | 100 to 115 or 220 to 240 V AC, 50/60Hz IEC (3 pin female c13) input socket for ø4-8mm cable | 100 to 115 or 220 to 240 V Plastic cable gland - suitable for ø4-8mm cable |
| Cable entry | +5 to +35°C (+41 to +104°F) | +40°C (+50 to +104°F) |
| Operating temperature | -40 to +35°C (-40 to +95°F) | +50°C (-40 to +122°F) |
| Storage temperature | Rack mount, 19" x 6U x GRP 324mm (12.8") x 735 x 535 x 270mm (29 x 21 x 10.5") | wall mounting enclosure; 324mm |
| Construction | | |
| | 12.5kg (27.5lbs) | 25kg (55lbs) |
| Weight | | |

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 V 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 V or better (-100°Cdp (-148°Fdp)).

Highlights

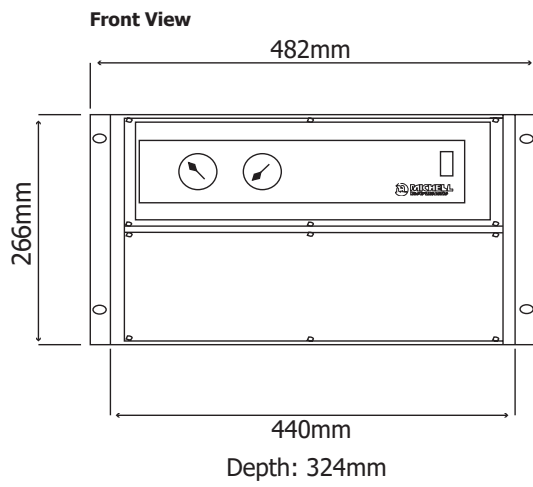
- Excellent long term stability
- Maintenance free except for a desiccant change once every 5 years
- Completely self-contained
- Low power consumption

Issue No: PSD2 and PSD4_97160_V2_UK_0613

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

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Dimensions - PSD2



Dimensions - PSD4

