



KINTRONIC LABS

an ISO 9001 registered company

MINILAB Dehydrator for Waveguide Transmission Line



MINILAB Features

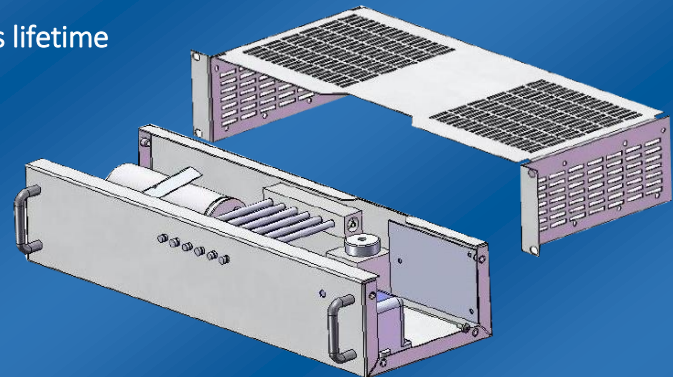
- Designed for continuous operation and automatic duty
- Dry air is vented by six standard individual air outlets with hose-tail fittings accessible from the back side of the equipment. Each outlet has an independent shutoff valve.
- Air is dried through absorption by granular substances in two drying chambers – while one chamber dries the other one is regenerated by heating and backwashing with a reverse dry air flow
 - The electronic microprocessor board controls drying cycles and adjusts the cycle's duration according to plant air needs
- Air is compressed by two diaphragm pumps
- A **FUNDAMENTAL** feature of the MINILAB is the continuous tracking of output pressure through the Pulse Width Modulation (PWM) technique. PWM optimizes the pump's duty, power consumption and acoustic noise, and improves the dehydrator's reliability, by controlling pump speed
 - Pump speed control eliminates the need for mechanical pressure regulators that introduce undesirable pressure losses and a worse response to flow needs
- No need for pre-settings nor warmup time before start up
- MTBF: 165,000 hrs = 8,760 per year = 19 years without maintenance!
- The MINILAB does ***not*** need preventive maintenance during its lifetime

DIMENSIONS:

19" Rack Mounting: 3.5" H x 19" W x 7.5" Depth
(88 mm H x 482 mm W x 190 mm Depth)

ETSI – N3 Rack: 3.5" H x 21" W x 7.5" Depth
(88 mm H x 533 mm W x 190 mm Depth)

Wall-Floor Mounting: 3.5" H x 19" W x 8.5" Depth
(88 mm H x 482 mm W x 216 mm Depth)





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Front & Rear Panel Devices

Front Panel

- Power On and Alarms LED
- 6 on/off outlet valves

Rear Panel

- Power Supply connector
- Remote Alarm connector
- Outlets with hose-tail fittings

MINILAB Specifications

| | |
|--------------------------------------|--|
| Output Pressure | Factory set at 0.3 psig (2 kPa), on request 0.15 – 0.9 psig (1 – 6 kPa) |
| Max. Flow Rate | 1 CFM (150 NI/h) |
| Safety Valve | Built-in, factory set at 1.02 psig (7 kPa) |
| Output Air Dew Point | Better than -49° F (-45° C) at typical ambient temperatures |
| Desiccant Regeneration | Automatic by heating |
| Regeneration Phase Interval | Adaptive according to plant leakages |
| Local Alarms | Power & system failures; low/high pressure; and high humidity |
| Remote Alarms | All the alarms are remote-controlled by SPDT relay |
| Optional Remote Monitoring Interface | 10/100 BaseT ethernet, auto-sensing with the following protocols: HTTP, TCP/IP, SNMP, TFTP, FTP, Telnet, DHCP |
| MTBF | Greater than 165,000 hours, according to MIL HDBK 217F at ground base conditions, 77° F (25° C) ambient temp., 50% flow rate |
| Acoustic Noise | ≤ 50 dBA at 3.2 ft (1 m) distance and 5 ft (1,5 m) height |
| Enclosure Degree of Protection | IP20 according to IEC529 |
| Operating Temperature | 14 – 122° F (-10° / +50° C) |
| Storage Temperature | -40 – 158° F (-40° C / +70° C) |
| Power Supply | 100 – 240 VAC, 50/60 Hz |
| Power Consumption | < 2.5 W (at steady state without system leakage) < 55 W (max during regeneration phase) |
| Weight | 9.3 lbs (4,2 kg) |
| Outlet Fittings | 3/8" (9,5 mm) diameter (other on request) |
| Waveguide TX Line Lengths | 6-12 GHz waveguides: 0 – 27,887 ft (0 – 8500 m) 4-5 GHz waveguides: 0 – 14,108 ft (0 – 4300 m) |