FIDSTATION50RC

High-Purity Hydrogen & Zero-Air Generator for CEM/AQMS

Leman Instruments

DESCRIPTION:

LEMAN Instruments designed the FIDSTATION50RC to supply, from a single independent instrument, both the combustion Hydrogen and the Zero Air required by FID-based Continuous Emission Monitoring (CEM) and Air Quality Monitoring System (AQMS) stations, in an elegant 19″ casing with a full-colour display and touchpad.

The FIDSTATION50RC combines a HYDRO50 Hydrogen generator — PEM cell technology producing pure H2 from electricity and high-quality deionized water — with an AERO50 Zero Air generator — PSA technology fed by an onboard oil-free compressor — in one instrument.

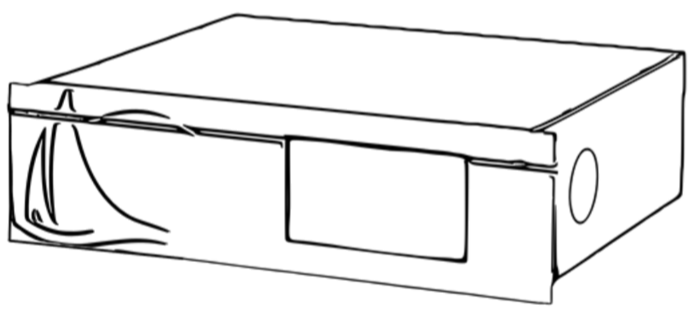
H2 and Zero Air are each available 24/7 at constant purity: 250 Nml/min H2 and 2.5 L/min Zero Air. RS485, USB and Ethernet interfaces build a flexible, centrally controlled gas network for safe, continuous, cylinder-free CEM/AQMS operations.



APPLICATION TYPES:

- All-in-one combustion + zero air supply for CEM FID (THC) analyzers
- Single-source gas supply for AQMS monitoring stations
- Eliminates gas-cylinder logistics at remote CEM/AQMS shelters





FEATURES:

- Single instrument supplies both combustion H2 and Zero Air for FID analyzers.
- Reduces operating costs and simplifies CEM/AQMS shelter logistics.
- H2 and Zero Air available 24/7 at constant purity. No contamination.
- Integrated compressor — fully independent gas supply, no cylinders.
- Low-noise compressor.
- Very safe operation: internal leak-test, automatic shutdown, over-pressure valve, current & voltage limits.
- No cylinder handling, storage, or rental fee.



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MODELS	FIDSTATION50RC — 250/2.5
Outflow @1013 hPa / 20°C	H2: 0.250 LPM Zero Air: 2.5 LPM
H2 purity	>99.9995% (maximum HC content: 0.1ppm)
ZA purity	<10ppm H2O · <0.5ppm HC · <0.5ppm CO and CH4 · particulates <0.01µm
Dew point	H2: -50°C · ZA: <10ppm H2O
Outlet Pressure	H2: 0.5–10 bar (7–145 psig) ZA: 0.5–5 bar (7–72 psig)
Water quality	High-purity deionized water (DI water); TOC free
Dimensions cm / in	L: 55cm / l: 41.5cm / H: 12cm (3U) L: 21.6in / l: 16.1in / H: 4.7in (3U)
Net weight (kg/lbs)	35kg / 77lbs

Water source / consumption	External 5L tank or central distribution network; 5L water generates about 6000L of Hydrogen
Compressed Air	Internal, oil-free compressor — included (feeds the Zero Air PSA module)
Safety	Low H2 stored volume; overpressure valve; internal leak test; automatic shut-down; current & voltage limits; over-temperature protection
Manual control	Through a 7″ TFT-LCD colour touchscreen with dual-gas display on the front panel. Menus and sub-menus for both gases.
Remote control, Communications	• RS485 (ModBus), USB • Ethernet 10/100 network RJ45 • Logbook download by USB
Input & Output fittings	H2: stainless steel 1/8″ OD compression · ZA: 1/4″ inlet, 1/8″ outlet
Power supply	Automatic switching from 90 to 260 VAC, 47 to 63 Hz
Power consumption (max at full flow)	Maximum 600W* (combined H2 150W + ZA 450W)
Ambient temperature	+10 to +35°C, non-condensing

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