# DUO LCMS-20/70

## Nitrogen & Zero Air Generator

**Designed for the PerkinElmer QSight LC-MS/MS (Single or Dual Source)**

Leman Instruments

## DESCRIPTION:

LEMAN Instruments designed this DUO LCMS variant specifically to match the gas demand of the PerkinElmer QSight Triple Quad LC-MS/MS series (single or dual source), delivering nitrogen and zero air simultaneously at the flow and pressure the instrument actually draws.

Dry and clean compressed Air, supplied by an external source is first filtered from particulates down to 5µm. Based on the field proven Pressure Swing Adsorption (PSA) technology, Nitrogen is then extracted from a set of filters filled up with high efficiency CMS. After the extracting process, N2 is filtered of remaining particulates down to 0.01 µm and pressure is regulated electronically to the set value, between 0.5 and 8 bar (7 to 116 psig). Same process for the Zero Air.

Model with outflow of up to 20 NL/min N2 and up to 70 NL/min ZA simultaneously is available, matched exactly to the PerkinElmer QSight gas requirement of 20 L/min N2 and 70 L/min dry air.

Each instrument is equipped with modern and high-performance communication interfaces Ethernet as standard to create a very flexible gas network with local or central control.

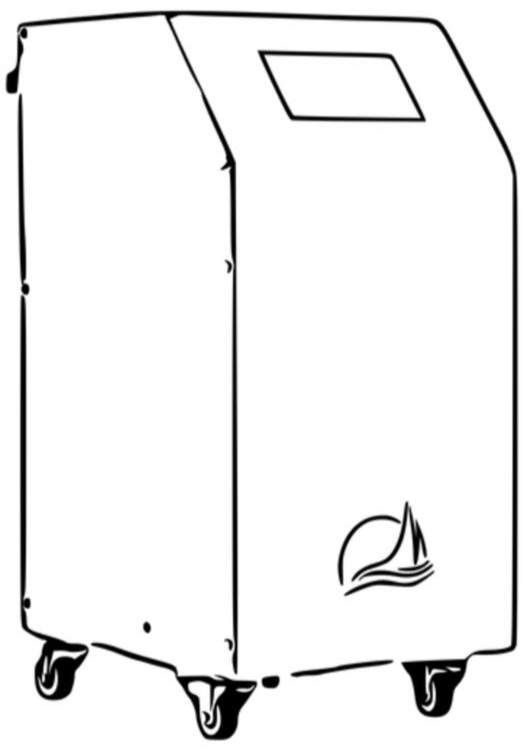
Due to the software being focused on safety, automatic regulation, and reliable communications, the DUO LCMS-20/70 is easy to install, reliable, safe and pleasant to operate.



## APPLICATION TYPES:

- PerkinElmer QSight Triple Quad LC-MS/MS (single or dual source)
- Nitrogen and dry air, matched to QSight gas specification



## FEATURES:

- Reduces operation costs. Return on investment within 12 months maximum (exact estimate with our ROI calculator).
- N2 and ZA available 24/7 at constant purity. No contamination.
- Independent source of dry N2 and ZA. Needs only dry oil-free compressed air supply and electricity. Can be easily moved around the laboratory.
- Low functioning noise.
- Local remote-control via Ethernet.
- Very safe operation, internal leak-test, automatic shut-down.
- No handling, no storage, no cylinder rental fee.
- No compressor, no consumables. Internal maintenance free.



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|---|---|
| **MODELS** | DUO LCMS-20/70 |
| **Max Outflow @1013 / 20°C** | Up to 20 NL/min N2 and 70 NL/min ZA simultaneously |
| **Output N2 purity** | 99% N2<br>-45°C dew point<br>Particulates <0.01µm |
| **Output ZA purity** | -50°C dew point<br>CO2, THC CH4 max. 10ppm each |
| **Output Pressure** | 0.5 to 8 bar, adjustable directly on touchscreen for both gases independently (7 to 116 psig) |
| **Input AIR quality** | Oil free, dried compressed Air; DIN ISO 8573-1 class 3 |
| **Dimensions** | W=480mm, H=690mm, D=700mm |
| **Net weight** | 100 Kg / 220 Lbs |

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| **Input AIR Pressure** | 12 bar (145 psig) Maximum. Attention: the inlet pressure needs to be always 2 bar (30 psi) higher than the output pressure. If not, purity cannot be guaranteed. |
| **AIR consumption** | Maximum ratio of 3: Air flow consumption / N2 flow generated. Same for ZA. |
| **Manual control** | Through a 7" TFT-LCD color display with touchscreen, located on the front panel. Display of major parameters, functioning status and alarms. Intuitive navigation to functions by menus and sub menus. |
| **Remote control, Communications** | Through Ethernet 10/100 network |
| **Input & Output fittings** | Inlet: G3/8"; outlet: Stainless steel 1/4" compression (other on request) |
| **Power supply** | Automatic switching from 90VAC to 260VAC, 47 to 63 Hz |
| **Power consumption** | Max 500W |
| **Certification** | CE, UL and CSA |