V.03 09/24

# Low Contents Oxygen Analyzer

# *TOA MP*




Rack 19'' version



Portable version

## Main characteristics

- Electrochemical cell replaceable
- Maintenance free
- Specific with absolute zero and linear output
- Unaffected by flow rate, hydrocarbons
- Air calibration possible
- Sensor insulation valves

## Main applications

- Gas purity monitoring ($N_2$, AR, $H_2$, $CO_2$, He, …)
- Inertages
- Heat treatment atmospheres
- Gloves box atmospheres
- VCM purity
- Electronic applications (lamp and semi-conductors)

The oxygen analyzer TOA MP integrates a maintenance free sealed electrochemical sensor and a complete new microprocessor electronics.

The touch sensitive display allows the user to see very quickly all parameters: ppm O2 content, analog output range, temperature control, alarms status, and to get access to the menus.
The instrument integrates some data storing facilities (350 data memory as standard and memory extension with SRAM card as option).

It gives a complete traceability on the events that occur on the analyzer: alarms threshold, error messages, calibration, configuration, etc. All these data are available on parallel output (for printer connection) and on digital interface RS232.

The automatic calibration function is very easy to use and allows: calibration values setting, calibration sequence performed manually, at set time or at regular intervals; calibration on one or two points; safety procedure in case of error on the gas used for calibration.



Headquarter: CDL – Tecora: 10 rue de la Prairie 91140 Villebon sur Yvette
Phone: +33 (0)1 81 87 08 84 - www.cdl-tecora.com

## Technical Characteristics

| | Version Rack 19'' | Version portable |
|---|---|---|
| Measurement principle | Electrochemical sensor | |
| Measurement range | 0 – 10000ppm, automatic display | |
| Accuracy* | ± 0.05% absolute vol. | |
| Repeatability* | ± 0.05% absolute vol. | |
| Display resolution | 3 levels of display resolution :<br>1. 0 – 999.9 ppm (1 decimal)<br>2. 1000 – 4999 ppm (0 decimal)<br>3. 0.5 – 24.9% (1 decimal)<br>If $O_2$ > 24.9%, blinking : out of measurement range | |
| Linearity* | Better than ± 0.5% vol. | |
| Zero drift* | < 0.1% absolute vol. / week | |
| Response time | $T_{95}$ < 30sec | |
| Sensor | Temperature monitored at +40°C | |
| Operating temperature | From 0 to +50°C | |
| Inlet pressure | From 0.1 to 1.5 relative bar | |
| Flow rate | Flowmeter with valve 0 – 1 L/min, recommended : 0.5 L/min | |
| Output signals | 4 – 20 mA, 0 -10 V, RS232, parallel | |
| Sampling | The gas must be clean and dry | |
| Gas connections | Fittings : 1/8'' NPT female | |
| Alarms | 2 alarms with an adjustable threshold, settable as high or low alarm<br>Analyzer default alarm<br>Flow rate default alarm (with optional external flow rate detector)<br>TTL 5V output to pass by the interface box | |
| Power supply | 230 VAC – 50/60 Hz | Rechargeable battery |
| Dimensions (L * H * P) | 483 * 133 * 400 mm | 310 * 200 * 210 mm |
| Weight | 10 kg | 10 kg |

* At constant pressure and temperature



Headquarter: CDL – Tecora: 10 rue de la Prairie 91140 Villebon sur Yvette
Phone: +33 (0)1 81 87 08 84 - www.cdl-tecora.com

## Codification

| Device | | |
|---|---|---|
| TOA | ARCMP1 | |
| **Integrated options** | | |
| No options | | 0 |
| Special cell for $O_2$ measurement in $CO_2$ | | 2 |
| Sample cell equipped with cooler for $O_2$ | | 3 |
| **Voltage** | | |
| 230 VAC / 110 VAC | | 0 |
| **Analyzer type** | | |
| Sensor integrated in Rack instrument | | - |
| Analyzer with remote sensor | | SC |
| Analyzer with remote sensor for Glove box | | GB |
| Portable analyzer | | P |
| Electronic only : Rack without sensor | | RD |
| Remote sensor only | | RS |

| Separate options | | |
|---|---|---|
| Power interface box | Alarm relay, management of automatic calibration… | ARC00578 |
| Internal membrane pump | Only for portable instruments | OPTPOMPE |

| Spare parts | | |
|---|---|---|
| $O_2$ ppm sensor | Electrochemical cell | ARCB210+ |
| $O_2$ ppm sensor | Electrochemical cell, for application with $CO_2$ | ARCA310+ |



Headquarter: CDL – Tecora: 10 rue de la Prairie 91140 Villebon sur Yvette
Phone: +33 (0)1 81 87 08 84 - www.cdl-tecora.com