Product Information

ENMET
Creative Gas Detection Solutions

# MATRIX and MATRIX Plus

## Medical Gas Verification – Made Simple



**PRODUCT FEATURES**

- **Real-time monitoring for 8 gases**
- **Faster station analysis**
- **Easily transportable and durable case**
- **Battery operated (12 hrs)**
- **Optional datalogger**
- **Complete field analysis in one instrument**

The MATRIX medical gas verifier is designed for the real-time analysis and verification of hospital gases to ensure compliance with NFPA 99.

The MATRIX offers the operator two key advantages:

- Reduces the time to complete a full analysis on station.
- Avoids the complexity of using single purpose instruments.

The MATRIX uses an (8) channel multi-sensor system to simultaneously monitor the following gases.

| | |
|---|---|
| Carbon Monoxide | Nitrous Oxide |
| Carbon Dioxide | Trace Hydrocarbons |
| Oxygen | Anesthesia Gases |
| Methane | Dew Point |

The MATRIX is a transportable instrument that is fully self-contained and able to operate on-site for 12 hours with no external support requirements. The real-time analysis data is displayed on the front LCD panels, which have integral alarm concentration indicators and loss of flow alarms.

The MATRIX Plus offers a datalogging option which allows the analysis data to be displayed on a PC via a USB connection. This permits the real-time data to be displayed in a graphical plot. The datalog can be archived with a location file name for use in reports. Additionally, the MATRIX Plus can be configured with a sampling pump for those applications which are not pressurized.

# MATRIX and MATRIX Plus

## GENERAL SPECIFICATIONS

| | |
|---|---|
| **Power** | 120 VAC/Lithium ion battery |
| **Battery Capacity** | 12 hours, under normal conditions |
| **Size** | 19 x 15 x 8 inches / 48 x 38 x 20 cm |
| **Weight** | 19 Lb. / 8.6 Kg |
| **Alarm** | LED visual indicator per channel with flow alarm |
| **Humidity Range** | 0-95 (non-condensing) |
| **Operating Temperature** | 32-77° F |
| **Inlet Pressure for Dew Point** | 55 psig |
| **Inlet Flow Rate for Sensors** | 0.5 liters/minute |

## SPECIFICATIONS FOR GASES MONITORED*

| GAS | RANGE | ALARM POINT 1 | ALARM POINT 2 | ACCURACY AT ALARM POINTS | SENSOR TYPE | DISPLAY INCREMENT |
|---|---|---|---|---|---|---|
| 1. Carbon Monoxide (CO) | 0-50 ppm | 10 ppm | 20 ppm | ± 1 ppm | EC | 1 ppm |
| 2. Carbon Dioxide ($CO_2$) | 0-5000 ppm | 1000 ppm | 2000 ppm | ± 20 ppm | NDIR | 10 ppm |
| 3. Dew Point | -112° to + 68°F | +35°F at 55 PSIG | +50°F at 55 PSIG | ± 2°F | TFP | 1°F or 1°C |
| 4. Trace Hydrocarbons | 0-20 ppm | 5 ppm | 10 ppm | ± 1 ppm | PID | 0.1 ppm |
| 5. Anesthesia Gases | 0-100 ppm | 50 ppm | 100 ppm | ± 5 ppm | MOS | 1 ppm |
| 6. Oxygen ($O_2$) | 0-100% by Vol. | ↓95% by Vol. | ↓90% by Vol. | ± 0.1% by Vol. | PP/EC | 0.1% by Vol. |
| 7. Methane ($CH_4$) | 0-5000 ppm | 500 ppm | 1000 ppm | ± 10 ppm | NDIR | 10 ppm |
| 8. Nitrous Oxide ($N_2O$) | 0-100% by Vol. | ↓95% by Vol. | ↓90% by Vol. | ± 3% by Vol. | NDIR | 1% by Vol. |
| 9. Carbon Dioxide ($CO_2$) | 0-100% by Vol. | ↓95% by Vol. | ↓90% by Vol. | ± 3% by Vol. | NDIR | 1% by Vol. |

* NOTE: Maximum 8 gases per instrument


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