ETL 3000

MULTI-COMPONENT AIR QUALITY MONITOR
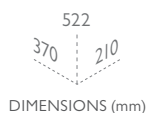
UniTec
Innovation in Analysis

INTERNAL VIEW
Data logger on the top and thick film sensors on the bottom.

522
370 | 210

DIMENSIONS (mm)

The ETL3000 is a multi-component air quality monitor for measuring airborne pollutants in parts per billion (ppb) concentrations. The system is based on a new solid-state thick-film sensor technology, which provides excellent sensitivity and accuracy. The performance of the sensors is superior to conventional electrochemical cells. The monitor provides measurement of CO, NO_2 and O_3. The system has a built-in data logger and a GSM modem (optional). Analysis of C_6H_6, CH_4, SO_2, H_2S, NH_3 with thick film sensor is also available as option. In addition ETL3000 can acquire measure coming from a weather station and store them in the internal data logger.

The ETL3000 is designed specifically for outdoor installation. A mounting kit is supplied, suitable for any pole diameter. The electronic part is based on a microprocessor with flash memory and it is completely separated by the sensors. Each sensor is independent and is installed inside its cell (SENS3000) and connected to the electronics with plug-play connectors. The sensors can be replaced easily in the field or removed to allow calibration at laboratory.

ETL 3000

TECHNICAL SPECIFICATIONS

PARAMETERS (standard configuration)	Solid state thick film sensors (0°C, 1 atm): CO : 0.1 -100 mg/m3 (precision < 2% f.s.) NO_2 0.1 - 500 µg/m3 (precision < 2% f.s.) O_3: 20 - 500 µg/m3 (precision < 10% f.s.)
OUTPUT:	RS232, ASCII string
DATA LOGGER:	**MICROPROCESSOR** - With Flash memory - 1 data/second acquired as elementary data for each sensor - Calculation of the minute average - Storage of hourly or 15 minutes data - Watch dog on board - 1 Mb memory RAM - 1 Mb flash memory - 4 x RS232 - 16 D.O., 15 D.I. - Firmware can be upgraded by remote connection
POWER SUPPLY:	220 V – 50 Hz
POWER CONSUMPTION:	0.1 A
DIMENSIONS:	370 x 522 (h) x 210 mm
WEIGHT:	10 Kg
EXECUTION:	IP55 – outdoor installation.
MOUNTING KIT:	ETL3000 is supplied with pole mounting kit

SENS3000 thick film sensor unit

ETLBUS: a small, light, integrated equipment suitable for installation on public service vehicles

Urban traffic pollution screening and roadside monitoring

Weather station (option)

PM10 PM2.5
PM10, PM2.5 dust monitoring (option)

Solar panels power supply (option)

OPTIONS

SENSORS	**Optional thick film sensor (0°C, 1 atm):** Benzene (C_6H_6) range 0-100 µg/m^3 Methane (CH_4) range 0-1000 mg/m^3 Ammonia (NH_3) range 0-80 mg/m^3 SO_2: range 0-30 mg/m^3 H_2S: range 0-15 mg/m^3 **Noise:** 60 dB dynamic (within the range 45-120 dB) **Particulate monitoring:** PM10 or PM2.5: range 0 - 400 µg/m^3
GSM / GPS	The GSM/GPS is an external unit which can acquire data from ETLBUS RS232 line, receive position from internal GPS positioning system, store data and send data by GSM modem to central acquisition unit.
SOFTWARE	@COM3000 remote data handling and elaboration software (report, graphs, statistics, configuration)
WEATHER PARAMETERS	Wind direction, wind speed, Temperature, Humidity, Pressure, Rain fall, Solar radiation, UV radiation
SOLAR PANELS	Solar panels, battery, regulator for 24 hours autonomy. This kit is designed to power an ETL with up to 5 sensors, modem GSM and a meteorological station