

# ETL ONE

MULTI-COMPONENT  
AIR QUALITY MONITOR



522  
370 210  
DIMENSIONS (mm)

- ◆ HIGH QUALITY DATA WITH UNITEC SENS-IT SENSORS
- ◆ GAS PARAMETERS: CO, NO<sub>2</sub>, O<sub>3</sub>, C<sub>6</sub>H<sub>6</sub>, CH<sub>4</sub>, SO<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, VOC, CO<sub>2</sub>
- ◆ DUST PARAMETERS: PM10, PM2.5, PM1
- ◆ DIRECT OUTDOOR INSTALLATION
- ◆ EASY TO INSTALL, CONFIGURE AND SET UP
- ◆ LOW PRICE
- ◆ LOW POWER CONSUMPTION
- ◆ LOW MAINTENANCE AND OWNERSHIP COSTS

- ◆ URBAN AIR QUALITY
- ◆ ROADSTREET POLLUTION
- ◆ INDUSTRIAL AREA AIR QUALITY
- ◆ FENCELINE MONITORING
- ◆ LANDFILL MONITORING

The ETL One is the new All-In-One air quality monitoring solution designed and manufactured by Unitec for indicative measurement (as defined by European Directive 2008/50/EC). The ETL One is a multiparametric station equipped with Unitec SENS-IT for continuous gas and dust monitoring with high precision and accuracy, featured by easy use and very low ownership costs. The IP55 case permits easy and direct outdoor installation (no cooling system or air treatment are required!). The Unitec SENS-IT gas sensors are based on proprietary technology and can monitor continuously gas pollutants in outdoor applications ensuring excellent sensitivity and selectivity (also at ppb levels), with no needs of frequent maintenance or calibration.

Each SENS-IT sensor is specific for a single gas and independently connected to the datalogger with plug-in connector, for easy in-field replacement.

The ETL One is equipped with a fully integrated dust monitoring module based on orthogonal light scattering technology for real-time particulate monitoring (PM10 or PM2.5 or PM1). Alternatively the ETL One can be equipped with external OPC dust module for multi PM simultaneous monitoring (PM10, PM2.5 and PM1). For both solution the ETL One has an automatic autozero calibration system that ensures long-time reliable measurement, reducing drift and maintenance activities. The built-in datalogger handles all activities, including continuously data acquisition, hourly average storage, dust module automatic daily zero calibration and data transmission. Many options are available: weather stations, GSM modem, UMTS modem (for VPN connection), noise meter, solar panel kit, ecc.

Different software solutions are also available for data download, data export, unit configuration, geolocalization, real-time visualization, ecc.

A mounting kit is always supplied, suitable for any pole diameter.

# ETL ONE

	PARAMETERS	RANGE	PRECISION	RESOLUTION
SENS-IT (TF-MOS – Thick Film Metal Oxide Semiconductor)	CO	0.1-80 ppm	0.2 ppm	0.1 ppm
	NO <sub>2</sub>	10-250 ppb	10 ppb	1 ppb
	O <sub>3</sub>	10-250 ppb	10 ppb	1 ppb
	C <sub>6</sub> H <sub>6</sub>	0.1-30 ppb	0.2 ppb	0.1 ppb
	CH <sub>4</sub>	1-1,500 ppm	5 ppm	1 ppm
SENS-IT (EC - Electrochemical Technology)	NH <sub>3</sub>	7-100 ppm	0.3 ppm	0.1 ppm
	SO <sub>2</sub>	5-10,000 ppb	20 ppb	1 ppb
	H <sub>2</sub> S	2 -3,000 ppb	15 ppb	1 ppb
	VOC	0.6-25 ppm	0.1 ppm	0.1 ppm
SENS-IT (IR - Infrared Technology)	CO <sub>2</sub>	10-5,000 ppm	50 ppm	1 ppm
DUST MODULE (Orthogonal Light Scattering)	PM10 or PM2.5 or PMI	1-400 µg/m <sup>3</sup>	< 2% f.s.	1 µg/m <sup>3</sup>
DUST MODULE (OPC)	PM10 and PM2.5 and PMI	1-6,000 µg/m <sup>3</sup>	< 1% f.s.	1 µg/m <sup>3</sup>

GENERAL SPECIFICATIONS	
OPERATING CONDITIONS	-20°C to +50°C 10 to 95% RH, non-condensing
DIMENSIONS	540 x 710 x 310 mm
WEIGHT	~ 15 Kg
EXECUTION	IP55 – ready for outdoor installation - (no cooling system or air treatment is required)
POWER SUPPLY	220 V, 110V, 12V (different power kits available)
POWER CONSUMPTION	50-70 W (depends on configuration)
DATA LOGGER	LCD Display Flash memory Frequency of readings: 1 sec Storage of 60' or 15' averages Output RS232, ASCII string

OPTIONS	
REMOTE COMMUNICATION	Modem GSM Modem UMTS with VPN functionalities
WEATHER STATIONS	Wind direction, wind speed, Temperature, Humidity, Pressure, Rain fall, Solar radiation, UV radiation
SOLAR PANEL KIT	Solar panels, battery, regulator for 24 hours autonomy. This kit is designed to power an ETL One with up to 5 sensors, modem GSM and meteorological station.
NOISE METER	Class I: 60 dB dynamic range
HEATED LINE	Heated sampling line for dust module (available only with 220V power supply)
SOFTWARE	@COM3000 (data download, export and unit configuration) ETL BAR (real time visualization) ETL TOTEM (data download, visualization and geolocalization)

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REV. 02AB - Due to continuous product development, the technical specifications can be changed without previous notification.