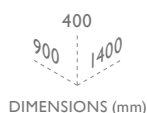


# ETL BUS

MULTI-COMPONENT AIR QUALITY MONITOR  
FOR MOBILE MONITORING



- ◆ 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
- ◆ DESIGNED FOR CAR/BUS ROOF INSTALLATION
- ◆ EASY TO INSTALL, CONFIGURE AND SET UP
- ◆ LOW PRICE
- ◆ LOW POWER CONSUMPTION
- ◆ LOW MAINTENANCE AND OWNERSHIP COSTS

- ◆ 3D ENVIRONMENTAL MONITORING
- ◆ URBAN AIR QUALITY
- ◆ ROADSTREET POLLUTION
- ◆ INDUSTRIAL AREA AIR QUALITY
- ◆ FENCELINE MONITORING

The ETL BUS is the new All-In-One air quality monitoring solution designed and manufactured by Unitec, for indicative measurement (Directive 2008/50/EC) and specifically engineered in a box for car or bus roof for 3D environmental monitoring.

The ETL BUS 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 BUS 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 BUS can be equipped with internal OPC dust module for multi PM simultaneous monitoring (PM10, PM2.5 and PM1). For both solution the ETL BUS has a built-in 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, GPS module, ecc. Different software solutions are also available for data download, data export, unit configuration, geolocalization, real-time visualization, ecc. A standard box for car or bus roof is provided with the unit, ready for easy installation (car bars or specific supports are not included).

# ETL BUS

	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>

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	GENERAL SPECIFICATIONS
OPERATING CONDITIONS	-20°C to +50°C 10 to 95% RH, non-condensing
DIMENSIONS	~ 1400 x 900 x 400 mm
WEIGHT	~ 20 Kg
EXECUTION	IP55 – ready for outdoor installation (no cooling system or air treatment is required)
POWER SUPPLY	12V with internal battery pack (220V power kit with battery charger function is included)
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

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

	OPTIONS
REMOTE COMMUNICATION	Modem GSM Modem UMTS with VPN functionalities
WEATHER STATIONS	Temperature, Relative Humidity
NOISE METER	Class I: 60 dB dynamic range
GPS	Built-in GPS module for position
SOFTWARE	@COM3000BUS (data download, export and unit configuration, including GPS position)