



StreetBox Urban Pollution Monitor

- Compact and rugged design
- Easy installation
- Real time operation
- On board datalogging
- Robust, low maintenance
- Up to three sensors

Overview

Developed to monitor the effects of traffic flow, the Learian StreetBox provides real time recording of local pollution levels. Using a microprocessor controlled logger, the StreetBox can monitor and record information on a whole range of airborne pollutants and cross reference them to site specific data such as temperature and relative humidity.

A wide range of sensor configurations is possible, with options for up to 3 electrochemical gas sensors, PM₁₀ monitor, met sensors and sound. Depending on the configuration chosen, the sample gas may be pumped into the unit or allowed to diffuse through natural air movement. Additional flexibility is achieved with a wide range of power options, from standard mains power to internal or external battery.

Constructed from weatherproof plastic, the StreetBox is environmentally sealed in a rugged, compact enclosure. Fixing is via a twin aperture bracket that allows fitting to most industrial or urban sites within minutes. This makes it ideal for short to medium term testing periods.

The logger has the capability to record up to several months of time stamped 15 minute averages. All data gathered is held in memory by an on-board lithium cell which allows all operational settings to be retained without external supply.

The StreetBox houses its own communications system which negates the need for hard wired telemetry. The integral radio link is capable of communicating with a dedicated base station up to 20 metres away, whilst the GSM option allows data recovery or program changes from almost anywhere. Each StreetBox is individually identified, which allows the use of several loggers within a data gathering network.

The supplied operational software is Windows™ compatible and supplied for multi user installation. Information on logger status, battery life and the dynamic state of all operational parameters is available via an easy to use pull down menu.

Options

Sensor options are NO₂, CO, NO, SO₂, H₂S, PM₁₀, met gear (wind speed and direction) or sound.

Data capture is via licence exempt radio as standard with RS232 or GSM as optional extras.

A StreetBox configuration guide is available separately from Signal

Specifications

Measuring range	CO - 0-100ppm NO ₂ - 0-10ppm SO ₂ - 0-40ppm NO - 0-100ppm H ₂ S - 0-10ppm
Resolution	CO - 0.1ppm NO ₂ - 20ppb SO ₂ - 25ppb NO - 0.5ppm H ₂ S - 0.1ppm
Response time	<40 seconds to T ₉₀
Repeatability	1% of signal
Span drift	<1% per year
Temperature range	-20 to +50 °C
Sensor life	Up to 2 years depending on levels measured
Enclosure	Weatherproof plastic Dimensions depend on options selected
Memory	500Kbytes

Specification for PM10

Sensor type	Forward light scatter
Sensitivity	1 µg/m ³
Precision	0.003µg/m ³ or 2% of reading
Long term stability	5% of reading
Auto zero	Hourly
Auto span	Daily

Specification for Met Gear (wind speed and direction)

Measuring range	Wind speed 0 - 78 m/s Wind direction 0-360°
Resolution	Wind speed 0.1 m/s Wind direction 1° (0-355°)

Specification for Sound

Sensor type	Integrating L _{eq}
Measuring range	50-100dB(A)

Signal Group Ltd.

Signal Ambitech Division, Regal Way, Faringdon, Oxfordshire SN7 7BX

Telephone: +44 (0)1367 242660

Fax: +44 (0)1276 242700

Email: sales@signal-group.com

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