Boundary Guardian
LIVE Instrumentation

Issue 2
Boundary Guardian is a fully-automated, stand-alone system developed for monitoring of noise and dust levels, giving contractors complete peace of mind that they fully comply with Section 61 restrictions.

The system provides real-time information and reporting, together with email or text alerts should limits be exceeded so that prompt action can be taken. Reports are available to authorised users for presentation to Local Authority Environmental Health Officers. The fully-automated system collects noise and dust measurements (with an option for vibration and wind monitoring) from appropriate positions on site and uploads them via the latest communication technology (3G–4G Ethernet) to our secure servers, with access restricted to the user. Boundary Guardian exclusively uses the class-leading range of sensors and has been developed to work alongside our range of fully portable, handheld, dust noise and vibration monitoring solutions. The pre-configured system is simple to install. Mabey offers a full installation package including a pre-installation site visit to offer advice on how to get the most from your monitoring system. For complete environmental monitoring systems, Mabey offers a range of static or portable vibration and atmospheric monitors designed to complement the Boundary Guardian system.

Applications

- Construction sites
- Demolition areas
- Waste transfer stations
- Roadside traffic monitoring
- Boundaries (fence line) at manufacturing sites
- Mining and blast areas

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>CAS-ND</td>
<td>Boundary Guardian Dust &amp; Noise Monitoring System</td>
<td>23</td>
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</table>
Features
- Section 61 & PPG24 Compliance
- Fully-automated, minimising resource cost
- 24/7 real-time data availability, with text and email alerts
- Stand-alone, plug & play (units are pre-configured to client requirements)
- Exclusively uses the class-leading Casella range of sensors
- Data fully accepted by Local Authority Environmental Health Office
- Short-term or long-term use
- Easily scaleable to meet changing needs
- Developed to work in conjunction with all of the Mabey range

Technical Specifications

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<th>Noise</th>
<th>Dust Participate</th>
<th>General</th>
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<td>Accuracy</td>
<td>Sensitivity</td>
<td>Protection class</td>
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<tr>
<td>Parameters</td>
<td>LAeq, LAmx, LA90%</td>
<td>Operating temp</td>
</tr>
<tr>
<td>Measurement range</td>
<td></td>
<td>Operating humidity</td>
</tr>
<tr>
<td>Total noise floor</td>
<td></td>
<td>Logger</td>
</tr>
<tr>
<td>Calibration</td>
<td>Via provided acoustic CEL-120/1 calibrator (supplied)</td>
<td>Power</td>
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<tr>
<td></td>
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<td>Mounting</td>
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</table>

Wind Speed & Direction Sensor

<table>
<thead>
<tr>
<th>Wind Speed</th>
<th>0-60 m/s</th>
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<tbody>
<tr>
<td>Accuracy</td>
<td>+/- 2%</td>
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<tr>
<td>Resolution</td>
<td>0.01 m/s</td>
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<tr>
<td>Threshold</td>
<td>0.01 m/s</td>
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<tr>
<td>Wind direction</td>
<td>0-359° (No Deadband)</td>
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<tr>
<td>Accuracy</td>
<td>+/- 3%</td>
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<tr>
<td>Resolution</td>
<td>10C</td>
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</table>

Noise Accuracy Class 1 to IEC61672-1
Parameters LAeq, LAmx, LA90%
Measurement range 20-140dB RMS
Total noise floor 19dB(A) Class 1
Calibration Via provided acoustic CEL-120/1 calibrator (supplied)

Dust Participate
- Sensitivity 1 ug/m³
- Zero stability +/- 2 ug/m³
- Size fractions Tsp, MP10 or PM2.5 selectable via PUF filters
- Inlet Heated to prevent moisture affecting measurements
- Calibration Insert provided onsite calibration

General
- Protection class IP65
- Operating temp -10 to +40°C
- Operating humidity <5% to 100%
- Logger Inbuilt logger data transmission via CPRS
- Power 220-240VAC or 110V
- Mounting Wall or pole mounted (50mm pole)

Mabey LIVE Instrumentation offers:
Contract Monitoring Services | Environmental Monitoring Solutions
Hired Monitoring Solutions | Calibration & Testing Solutions