Smart and Compact

The CVS-ONE series is designed for the measurement of diluted emissions from vehicles and engines. The new integrated operating platform, HORIBA ONE PLATFORM is adopted for the CVS-ONE. The hardware has been significantly downsized from previous designs, reducing test cell footprint requirements. It introduces new functions and is more user-friendly, while still maintaining high accuracy. In conjunction with the MEXA-ONE (Motor Exhaust Gas Analyzer), the system can be used to measure extremely low emission levels such as SULEV. The new CVS reliably supports emission testing requirements of today and into the future.

Integrated Operating Platform
HORIBA ONE PLATFORM

The newly developed software is an integrated operating platform for MEXA-ONE, CVS-ONE and other devices. The intuitive, ergonomic design of the new software platform makes system operation easier. System control and a complete system view of other measurement devices are available from one single display. User support for system operation such as maintenance, alarm and message functions have been further enhanced.

A Compact Design for Flexible Layout

65% less volume, 70% less footprint.

Conventional product
CVS-ONE

Exhaust Sampling Unit

※ By comparison with HORIBA’s conventional products, depending on system specifications such as ESU / Heat Exchanger
CVS-ONE offers a wide range of dilution flow rate options and separate main sample line functionality. One system covers testing for a wide variety of applications, such as diverse engine/vehicle testing, vehicle testing, and various fuel types (gasoline, diesel and alternative fuel).

**Certification Test**

- **Complies with the latest emission regulations**
  EU: Euro 5/6, Euro VI  US: 40 CFR Part 1065  Japan: Post new long-term emissions regulations Support of future regulations as they become defined (CFR 1066, WLTP grt, etc.)

- **Flexible number of bags and combinations for various types of testing cycles**
  Additional bags can be added after installation (Max.20 bags)

**Highly Accurate Fuel Consumption Measurement**

- **Suitable for Hybrid Vehicle/Plug-in Hybrid Vehicle fuel consumption tests**
  Max. 5 Bag pairs; suitable for HV/Plug-in HV continuous testing
  Bag sampling is related to operating conditions of engine

- **Control measurement accuracy by history menu of system quality checks, system performance, and auto propane check (optional)**

**Low Emission Measurement for LEV III level (California, US)**

- **Reduced influence of contamination from sampling gas**
  Bag sampling unit and analyzers share the same enclosure (shorter gas line).
  Enhanced line purge function
  Automatic system blank test (Null test) and history management function

- **Interference influence reduction**
  Low concentration CO₂ analyzer minimizes water interference

- **Select suitable dilution factor**
  Easy to select suitable dilution factor with water monitor function (optional)

© Dilution System <LDV Gasoline / Diesel>
## System Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>CVS-ONE-SV</th>
<th>CVS-ONE-SV-HE</th>
<th>CVS-ONE-MV</th>
<th>CVS-ONE-MV-HE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flow control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flow rate changing</strong></td>
<td>Manual (Single-Venturi System)</td>
<td></td>
<td>Automatic (Multi-Venturi System)</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum flow rate</strong></td>
<td>20 m³/min</td>
<td>20 m³/min</td>
<td>30 m³/min</td>
<td>40 m³/min</td>
</tr>
<tr>
<td><strong>Heat Exchanger</strong></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td><strong>Integrated Mixing Tee</strong></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exhaust Sampling Unit (ESU)</strong></td>
<td></td>
<td></td>
<td>–</td>
<td></td>
</tr>
<tr>
<td><strong>Bag Sampling Unit (BSU)</strong></td>
<td>To be integrated in the MEXA-ONE cabinet</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental conditions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td></td>
<td></td>
<td>5 to 40 deg C</td>
<td></td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>80% or less as relative humidity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Atmospheric pressure and altitude</strong></td>
<td>80 to 105 kPa (Up to 2000 m above sea-level)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Please contact HORIBA regarding optional specifications, such as a larger flow rate for heavy duty engines.
2 For systems without Mixing Tee.
3 System available under low pressure condition (80 to 93 kPa, 700 to 2000 m above sea level) should be specified when ordering as an optional specification.

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*Please read the operation manual before using this product to assure safe and proper handling of the product.*

- The specifications, appearance or other aspects of products in this catalog are subject to change without notice.
- Please contact us with enquiries concerning further details on the products in this catalog.
- The color of the actual products may differ from the color pictured in this catalog due to printing limitations.

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**Heated Bag Cabinet (HBC), Flow Calibration Unit (SAO), Propane Check Unit (CFO-202)**

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**Options**

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**Bulletin:HRE-2273C**

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**Printed in Japan**

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