CNG & LPG COMPONENTS

MULTI-OUTLETS INJECTORS
SINGLE-OUTLET INJECTORS
INJECTOR RAILS
PRESSURE CONTROL DEVICE
FILTERS
Very high repeatability and precision
Ultra-low mass (38 gr Flying version)
Long operating life, over 500 millions of cycles
Low consumption in holding mode
Ultra linear shutter
Response time 0,5 ms
Opening time 0,9 ms
Reduced noise

**HS Flying Series**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil</td>
<td>2 Ohms</td>
</tr>
<tr>
<td>Flow</td>
<td>55 - 73 - 81 - 95 Nlm @ 1 bar</td>
</tr>
<tr>
<td>Dimension</td>
<td>65 x 33 x 28 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>38 gr</td>
</tr>
</tbody>
</table>

**UDM Series**

<table>
<thead>
<tr>
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<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Coil</td>
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</tr>
<tr>
<td>Flow</td>
<td>55 - 73 - 81 - 95 Nlm @ 1 bar</td>
</tr>
<tr>
<td>Dimension</td>
<td>On demand</td>
</tr>
<tr>
<td>Weight</td>
<td>min 60 gr - max 80 gr</td>
</tr>
</tbody>
</table>

**HS Snap-in**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Coil</td>
<td>2 Ohms</td>
</tr>
<tr>
<td>Flow</td>
<td>73 - 95 Nlm @ 1 bar</td>
</tr>
<tr>
<td>Dimension</td>
<td>57 x 41 x 28 mm</td>
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<tr>
<td>Weight</td>
<td>45 gr</td>
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HS SYSTEM GAS INJECTORS

**HS Rail Series**

<table>
<thead>
<tr>
<th>Coils</th>
<th>2 Ohms</th>
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</thead>
<tbody>
<tr>
<td>Flow</td>
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</tr>
<tr>
<td>Dimension</td>
<td>On demand</td>
</tr>
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</table>

UDM SYSTEM GAS INJECTORS

**UDM Rail Series**

<table>
<thead>
<tr>
<th>Coils</th>
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<tbody>
<tr>
<td>Flow</td>
<td>55 - 73 - 81 - 95 Nlm @ 1 bar</td>
</tr>
<tr>
<td>Dimension</td>
<td>On demand</td>
</tr>
</tbody>
</table>
HD GAS INJECTORS HIGHLIGHTS

- Multi-outlet configuration, compact dimensions and low mass
- Proportional flowrate control (1 - 2 outlets version) with digital logic
- Long operating life, over 500 millions of cycles
- Very high repeatability, precision and linearity
- Response time 0.5 ms - Opening and closing time 1 ms
- Ultra-linear shutter technology
- High flowrate versions
- High pressure versions
- Reduced noise

HD 344 Series

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Coil</td>
<td>2 Ohms</td>
</tr>
<tr>
<td>Flow</td>
<td>72 - 94 Nlm @ 1 bar</td>
</tr>
<tr>
<td>Dimension</td>
<td>62 x 28 x 61 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>230 gr</td>
</tr>
</tbody>
</table>

Calibrated outlet nozzle

Dynamic flowrate
Ref. HD 344 Series

Proportional flowrate control
Ref. KJ 341 Series

Sicma II connection

HD 344

INLET
# HD SYSTEM GAS INJECTORS

### HD 344 T-Map Series
- **Coil:** 2 Ohms
- **Flow:** 72 - 94 Nl/m @ 1 bar
- **Dimension:** 77 x 28 x 61 mm
- **Weight:** 350 gr

### HD 322 Series
- **Coil:** 2 - 2.5 Ohms
- **Flow:** 100 - 160 Nl/m @ 1 bar
- **Dimension:** 62 x 28 x 61 mm
- **Weight:** 230 gr

### HD 544 Series
- **Coil:** 2 - 2.5 Ohms
- **Flow:** 100 - 160 Nl/m @ 1 bar
- **Dimension:** 100 x 31 x 56 mm
- **Weight:** 470 gr

# KJ SYSTEM GAS INJECTORS

### KJ 341 Series 24 VDC
- **Coil:** 5 Ohms
- **Flow:** 188 - 754 Nl/m @ 6 bar
- **Dimension:** 62 x 31 x 63 mm
- **Weight:** 230 gr
FREQUENCY. The maximum frequency reached by Matrix injectors express the top-notch performance levels and the wide range of applications that this technology has to offer. This means extreme reliability, combined with new and innovative application possibilities in the gas injection industry that until today were unthinkable of. The graph illustrates the pressure wave in the outlet fitting when associated to a 200 Hz electronic control frequency.

REPEATABILITY AND PRECISION. The graph also shows the high level of precision and of repeatability guaranteed by Matrix injectors. Fluctuation of response times are lower than measurable levels; such values, due to a functional principle which is void of friction, remain constantly unaltered in all environment conditions featured by product specifications.

RESPONSE TIMES. The extremely reduced value of 0.5 ms (500 microseconds) is the norm for HD and HS injectors no matter which version and relative flowrate is featured. This ensures high quality performances and a simplification of the management software to which no corrections are required during the entire power curve even when applied to models with different flowrates.

LOW CONSUMPTION. The innovative functional principle that characterizes Matrix injectors allows a consistent energetic saving during functional phases. Typical current values during maintenance phases is of 0.5 Ampère (1.25 Watt) in HD models, and of 0.6 Ampère (1.44 Watt) in HS models. The graph illustrates the current wave that after the speed-up signal establishes itself on a very low level.

HIGH LINEARITY and NEW APPLICATIONS. The remarkable injection time reduction typical of Matrix’s injectors grants an engine output linearity enhancement, currently not available with any other injector or technology. For this reason Matrix’s injectors have been chosen for the development and implementation of new and innovative gas injection strategies in gasoline and diesel applications such as micro-injections and multi-injections, focused on performance improvements both in terms of fuel consumption and emissions reduction.
**NX CNG - PRESSURE CONTROL DEVICE**

**NX 12 Series**
- Filtration degree: 60 microns
- Flow: 650 Nlm @ 2 bar
- Dimension: 130 x 94 x 95 mm
- Weight: 1050 gr
- Output pressure: 1 - 2.5 bar

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**XF FILTERS**

**XF 301 Series**
- Filtration degree: 10 microns
- Flow: 800 - 1200 Nlm @ 2 bar
- Diameter dimension: 66 x 88 mm
- Weight: 187 gr

**XF 301 Cartridges**
- Filtration degree: 10 microns
- Diameter dimension: 66 x 88 mm
- Weight: 46 gr
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Phone: +39 0125 615442 - Fax: +39 0125 615377 - matrix@matrix.to.it - www.matrix.to.it