ORION
Cost-effective Series of Digital Speed Control Systems

- High efficiency
- Selection of digital controls
- Optional rotary or linear actuators

HEINZMANN

Engine & Turbine Management
ORION
Cost-effective speed control systems

HEINZMANN designs and produces a comprehensive range of control systems for reciprocating engines, gas and steam turbines as well as generator management systems.

The economically advantageous ORION series is designed for small and medium-sized diesel and gas engines.

The optimal price-performance ratio and high efficiency are the main benefits of the systems. Furthermore, all solutions have a highly intelligent and precise feedback system and are available with rotary or linear actuators.

The ORION series provides digital controls and a choice of actuators which can be combined with all control devices. Thus our customers can choose the system tailored for their needs in order to meet different application requirements.

HEINZMANN’s control systems are acknowledged for their long life cycle and proven reliability.

ORION Benefits

✓ Optimal price-performance ratio
✓ High efficiency
✓ Precise feedback system
✓ Long life cycle
✓ Proven reliability

ORION DIGITAL CONTROL UNITS

ORION DC 7
HEINZMANN’s DC 7 is a digital speed control for industrial vehicle application. Robust and enduring, resistant to any substance in engine environment. Besides speed control it provides various additional functions.

ORION DC 9
ORION DC 9 cost-effective digital speed control units are highly flexible and have a good speed control performance on small and medium combustion engines.

ORION DC 10
The economically advantageous ORION DC 10 digital control unit with protection grade IP66 is tailored for direct engine mounting without panel and can be used for small combustion engines.

ORION DC 12
Economic controller for direct engine mounting with competitive price-performance ratio, operating as a part of ORION governor systems, driving direct acting rotary StG 3005/3010, StG 2005 DP/2040 DP, StG 4002 actuators in 4Q-operation.
**ACTUATORS**

**StG 3005/StG 3010**

This direct acting actuators are working in 4Q-operation with rotary output. They come with a well-tried contactless position feedback and integrated return springs. StG 3005 and StG 3010 are designed for direct mounting and applicable in various fields of use (e.g. operating butterfly valves, pump rods, etc.).

**LA Series**  
**Linear versions: LA 25/LA 30/LA 35**

Actuators of the series LA work in 2Q-operation. Actuation is produced by magnetic force, restoring force comes from a return spring. The range of strokes of this linear actuators runs from 12.5 mm up to 19.5 mm. The range of actuating powers runs from 25 N up to 35 N.

The non-contact feedback provides precise positioning on the total range of adjustment even in oily ambient conditions. Mounting is performed on pumps front side using an adaptor.

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**Overview – control units**

<table>
<thead>
<tr>
<th></th>
<th>DC 7</th>
<th>DC 9</th>
<th>DC 10</th>
<th>DC 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication</strong></td>
<td>CAN</td>
<td></td>
<td>CAN optional</td>
<td>CAN</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td>2 inductive pick up, 4 analogue, 6 binary, 3 temperature</td>
<td>1 inductive pick up, 1 Hall type pick up (via MFP), 3 MFP, 1 binary, 1 temperature</td>
<td>1 Hall type pick up (via MFP), 1 Hall type pick up (via MFP), up to 6 MFP, 1 temperature</td>
<td>1 inductive pick up, 1 Hall type pick up (via MFP), 1 MFP, 3 analogue, 3 binary, 2 temperature</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Actuator drive PWM, 2Q, 7 binary, 1 alarm, 3 PWM, 3 sensor supply</td>
<td>Actuator drive PWM, 4Q, 1 binary, 1 sensor supply</td>
<td>Actuator drive PWM, 2Q, 1 analogue (via MFP), 1 binary (via MFP), 1 sensor supply</td>
<td>Actuator drive PWM, 4Q, 1 analogue, 1 binary, 2 sensor supply</td>
</tr>
</tbody>
</table>

* MFP = Multifunctional ports

**Overview – actuators**

<table>
<thead>
<tr>
<th></th>
<th>StG 3005</th>
<th>StG 3010</th>
<th>LA 25</th>
<th>LA 30</th>
<th>LA 35</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Angle/Length of stroke</strong></td>
<td>53°</td>
<td>50°</td>
<td>19.5 mm</td>
<td>15.5 mm</td>
<td>12.5 mm</td>
</tr>
<tr>
<td><strong>Torque/Force</strong></td>
<td>0.3 Nm</td>
<td>0.6 Nm</td>
<td>25 N</td>
<td>30 N</td>
<td>35 N</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Digital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td></td>
<td>Inline injection pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Direction of operation</strong></td>
<td>L/R*</td>
<td>L/R</td>
<td>F/B*</td>
<td>F/B</td>
<td>F/B</td>
</tr>
</tbody>
</table>

* L/R = Left/Right, F/B = Forward/Backward

For further information refer to the respective data sheets.
The HEINZMANN Group
Quality & Precision since 1897

The Group started 1897 with Heinzmann GmbH & Co. KG, and now includes REGULATEURS EUROPA, HEINZMANN DATA PROCESS and CPK Automotive as member companies.

The HEINZMANN Group boasts a combined total of fifteen global subsidiaries, including eight production sites and an international distributor network.

The product portfolio comprises engine management system solutions, as well as exhaust gas aftertreatment solutions, for industrial combustion engines and turbines; it also encompasses automation systems, primarily for the shipping industry.

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