For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world.

We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

H1 - our new generation of servo-controlled hydrostatic pumps and bent axis variable motors is no exception.

The H1 product is built around an advanced control and available in a wide range of displacements. It is designed for quality and reliability and offers expanded functionality, greater total efficiency, and easy installation.

All H1 control and sensor options are PLUS+1® Compliant. PLUS+1® allows you to rapidly develop and customize electronic machine control. It opens up the future by combining machine controls and diagnostics in an integrated operating network.

Features

**Designed for quality and reliability**
- Proven and optimized 9 piston rotating group
- Single piece housing
- Electric components with IP67 & IP69K rating

**Installation and packaging benefits**
- Optimized for shortest length
- Standardized connector interface
- Integrated loop flushing device
- Radial or axial high pressure ports

**Greater total efficiency**
- Minimized losses
- Improved at high flow conditions

**Wide range of controls**
- Electric Two-position Control
- Electric Proportional Control
- Hydraulic Two-position Control
- Hydraulic Proportional Control
- Pressure Compensator Override
- Proportional Pressure Compensator Override
- Brake Pressure Defeat option
- Common controls across the entire motor family
- PLUS+1® Compliant control and sensor options

**Expanded functionality**
- Zero degree capability together with high performance 32 degree maximum angle
- Enhanced control functions with proportional controls de-energized at minimum or maximum displacement
- Optional integrated speed sensor with
  - Dual redundant speed sensing
  - Direction indication
  - Temperature sensing
  - Wire fault detection

Comprehensive technical literature online at powersolutions.danfoss.com
### Technical specifications

<table>
<thead>
<tr>
<th></th>
<th>SAE ISO 3019/1</th>
<th>34.8 kg [76.9 lb]</th>
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<tbody>
<tr>
<td>DIN ISO 3019/2</td>
<td>34.4 kg [76.0 lb]</td>
<td></td>
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<tr>
<td><strong>Output speed rated</strong></td>
<td>Max. displacement</td>
<td>3200 min⁻¹ (rpm)</td>
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<tr>
<td></td>
<td>Min. displacement (6°)</td>
<td>5300 min⁻¹ (rpm)</td>
</tr>
<tr>
<td></td>
<td>0° displacement</td>
<td>5980 min⁻¹ (rpm)</td>
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<tr>
<td><strong>Max. output speed</strong></td>
<td>Max. displacement</td>
<td>4100 min⁻¹ (rpm)</td>
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<tr>
<td></td>
<td>Min. displacement (6°)</td>
<td>6600 min⁻¹ (rpm)</td>
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<tr>
<td></td>
<td>0° displacement</td>
<td>7200 min⁻¹ (rpm)</td>
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<tr>
<td><strong>System pressure</strong></td>
<td>Working</td>
<td>450 bar [6,527 psi]</td>
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<tr>
<td></td>
<td>Maximum</td>
<td>480 bar [6,960 psi]</td>
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<tr>
<td></td>
<td>Min. low loop</td>
<td>7.5 bar [109 psi]</td>
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<tr>
<td><strong>Case pressure</strong></td>
<td>Rated</td>
<td>3 bar [44 psi]</td>
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<tr>
<td></td>
<td>Max.</td>
<td>5 bar [73 psi]</td>
</tr>
<tr>
<td></td>
<td>Min.</td>
<td>0.3 bar [4 psi]</td>
</tr>
</tbody>
</table>

### Dimensions

**SAE ISO 3019/1 with Electric proportional control (de-energized = max. displacement)**

- Loop flushing valve
- System pressure: A/B
- Gauge port: MA/MB
- Speed sensor connector: Deutsch DTM04-6P
- DIN 25 typ 4400Pa series per ISO 6162 thread M12x1.75
- Cartridge with Electric two-position control (de-energized = min. displacement)
- Pressure compensator override

**DIN ISO 3019/2 with Electric proportional control (de-energized = min. displacement)**

- Loop flushing valve
- System pressure: A/B
- Gauge port: MA/MB
- Speed sensor connector: Deutsch DTM04-6P
- DIN 25 typ 4400Pa series per ISO 6162 thread M12x1.75
- Cartridge with Electric two-position control (de-energized = min. displacement)
- Pressure compensator override

### Schematic

**H1B with Electric Proportional Control (De-energized = max. displacement)**

[Diagram of H1B with Electric Proportional Control]

**Dimensions**

**SAE ISO 3019/1 with Electric proportional control (de-energized = max. displacement)**

- Loop flushing valve
- System pressure: A/B
- Gauge port: MA/MB
- Speed sensor connector: Deutsch DTM04-6P
- DIN 25 typ 4400Pa series per ISO 6162 thread M12x1.75
- Cartridge with Electric two-position control (de-energized = min. displacement)
- Pressure compensator override

**DIN ISO 3019/2 with Electric proportional control (de-energized = min. displacement)**

- Loop flushing valve
- System pressure: A/B
- Gauge port: MA/MB
- Speed sensor connector: Deutsch DTM04-6P
- DIN 25 typ 4400Pa series per ISO 6162 thread M12x1.75
- Cartridge with Electric two-position control (de-energized = min. displacement)
- Pressure compensator override

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