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 a 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

| Weight | SAE ISO 3019/1 | 48.8 kg (108 lb) |
| Output speed rated | Max. displacement | 2900 min⁻¹ (rpm) |
| | Min. displacement (6°) | 4800 min⁻¹ (rpm) |
| | 0° displacement | 5350 min⁻¹ (rpm) |
| Max. output speed | Max. displacement | 3700 min⁻¹ (rpm) |
| | Min. displacement (6°) | 5950 min⁻¹ (rpm) |
| | 0° displacement | 6500 min⁻¹ (rpm) |
| System pressure | Working | 450 bar [6527 psi] |
| | Maximum | 480 bar [6960 psi] |
| | Min. low loop | 7.5 bar [109 psi] |
| Case pressure | Rated | 3 bar [44 psi] |
| | Max. | 5 bar [73 psi] |
| | Min. | 0.3 bar [4 psi] |

Dimensions

SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)

- System Pressure: X = A
- Gauge Port : MB 1/2-18UNF-2B Y = A
- Split Flange Boss X = A
- DIN ISO 3019/2
- SAE ISO 3019/1
- Gauge Port : MA 1/2-18UNF-2B Y = B
- Split Flange Boss X = B
- Thread M12 x 1.75
- 21.5 [0.85] full thread depth
- Thread M12 x 1.75
- 25.0 [1.0] full thread depth

DIN ISO 3019/2 with Electric Proportional Control (de-energized = min. displacement)

- System Pressure: X = B
- Gauge Port : MB 1/2-18UNF-2B Y = B
- Split Flange Boss X = B
- DIN ISO 3019/2
- SAE ISO 3019/1
- Gauge Port : MA 1/2-18UNF-2B Y = A
- Split Flange Boss X = A
- Thread M12 x 1.75
- 21.5 [0.85] full thread depth
- Thread M12 x 1.75
- 25.0 [1.0] full thread depth

Cartridge with Electric Two-Position Control (de-energized = min. displacement)

Pressure Compensator Override, Brake Pressure Defeat

Schematic

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

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