

Data Sheet

# H1 Bent Axis Variable Motor

## Size 060 cm<sup>3</sup>



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<sup>®</sup> Compliant. PLUS+1<sup>®</sup> 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<sup>®</sup> 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

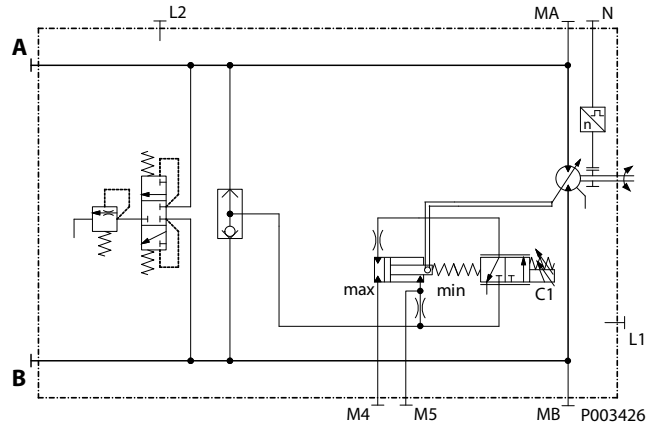
Comprehensive technical literature online  
at [powersolutions.danfoss.com](http://powersolutions.danfoss.com)

**Technical specifications**

|                           |                        |                              |
|---------------------------|------------------------|------------------------------|
| <b>Weight</b>             | SAE ISO 3019/1         | 29.8 kg [65.8 lb]            |
|                           | DIN ISO 3019/2         | 28.3 kg [62.5 lb]            |
| <b>Output speed rated</b> | Max. displacement      | 3600 min <sup>-1</sup> (rpm) |
|                           | Min. displacement (6°) | 5900 min <sup>-1</sup> (rpm) |
|                           | 0° displacement        | 6600 min <sup>-1</sup> (rpm) |
| <b>Max. output speed</b>  | Max. displacement      | 4500 min <sup>-1</sup> (rpm) |
|                           | Min. displacement (6°) | 7250 min <sup>-1</sup> (rpm) |
|                           | 0° displacement        | 7950 min <sup>-1</sup> (rpm) |
| <b>System pressure</b>    | Working                | 450 bar [6527 psi]           |
|                           | Maximum                | 480 bar [6960 psi]           |
|                           | Min. low loop          | 7.5 bar [109 psi]            |
| <b>Case pressure</b>      | Rated                  | 3 bar [44 psi]               |
|                           | Max.                   | 5 bar [73 psi]               |
|                           | Min.                   | 0.3 bar [4 psi]              |

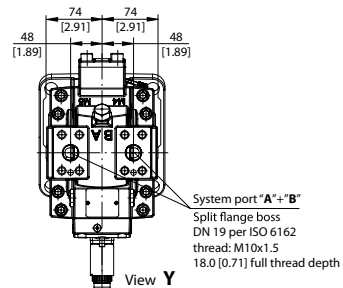
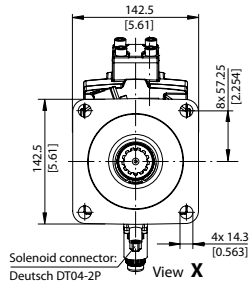
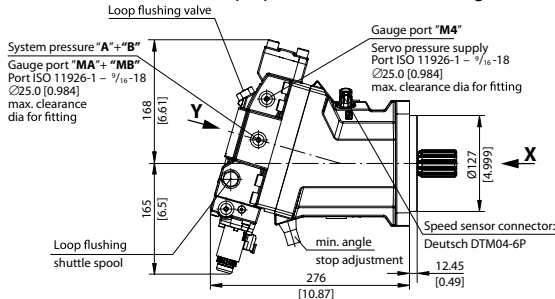
**Schematic**

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

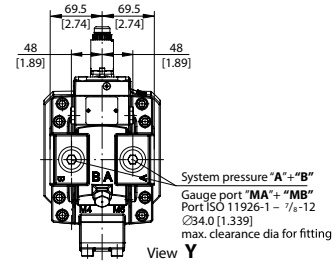
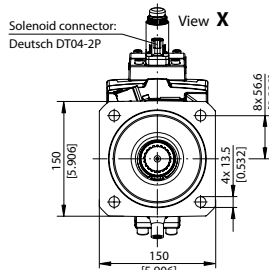
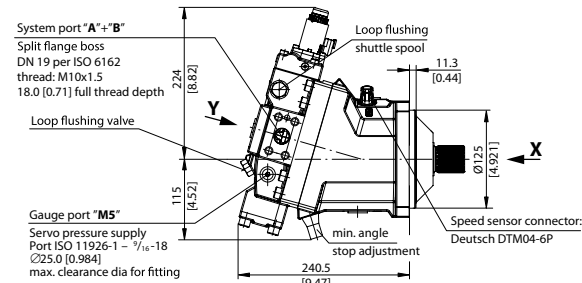


**Dimensions**

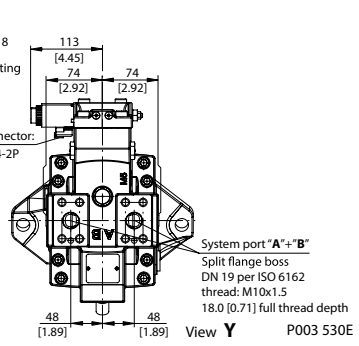
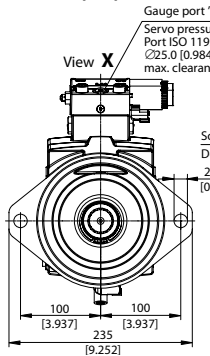
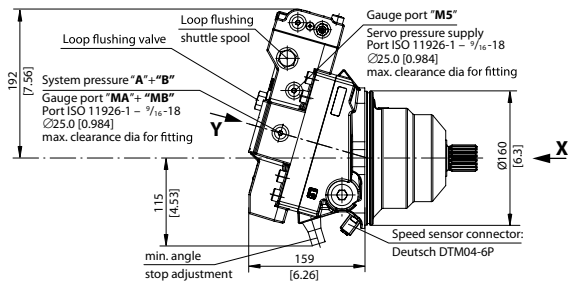
SAE ISO 3019/1 with Electric proportional control (de-energized = max. displacement)



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



Cartridge with Electric two-position control (de-energized = min. displacement)  
Pressure compensator override, Brake pressure defeat



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