

Data Sheet

# H1 Bent Axis Variable Motor

## Size 110 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

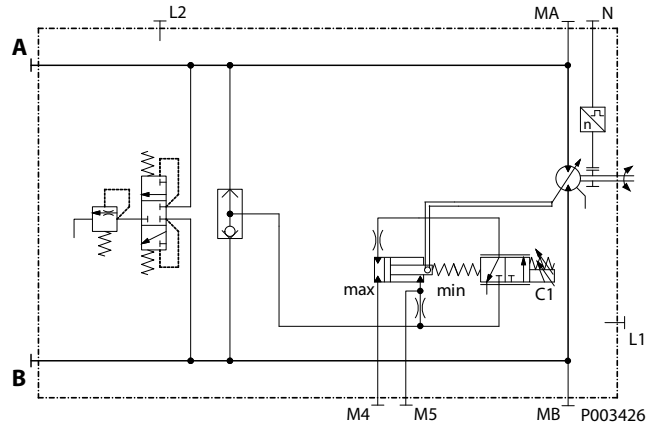
Comprehensive technical literature online at [powersolutions.danfoss.com](https://powersolutions.danfoss.com)

**Technical specifications**

<b>Weight</b>	SAE ISO 3019/1	48.8 kg [108 lb]
	DIN ISO 3019/2	45.0 kg [99 lb]
<b>Output speed rated</b>	Max. displacement	2900 min <sup>-1</sup> (rpm)
	Min. displacement (6°)	4800 min <sup>-1</sup> (rpm)
	0° displacement	5350 min <sup>-1</sup> (rpm)
<b>Max. output speed</b>	Max. displacement	3700 min <sup>-1</sup> (rpm)
	Min. displacement (6°)	5950 min <sup>-1</sup> (rpm)
	0° displacement	6500 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]

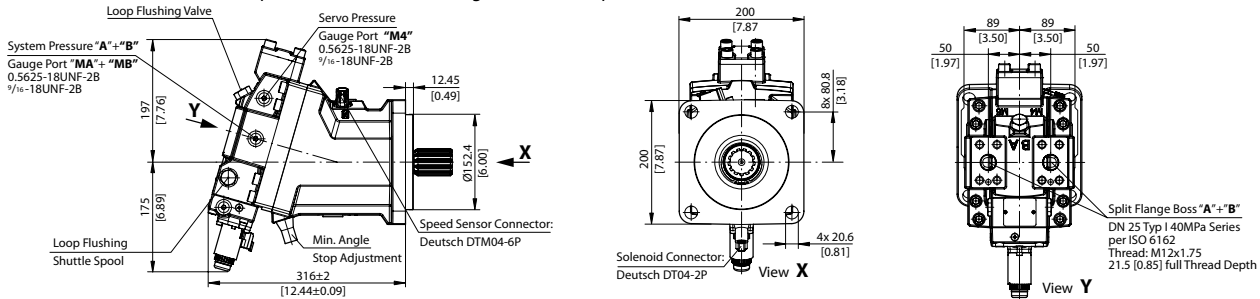
**Schematic**

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

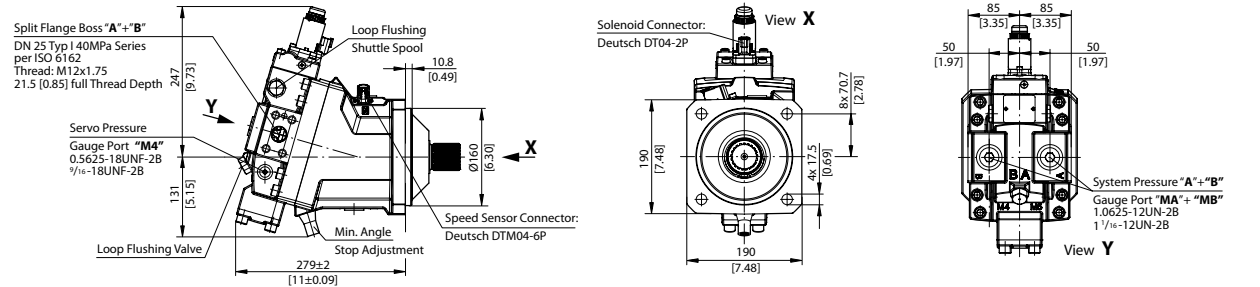


**Dimensions**

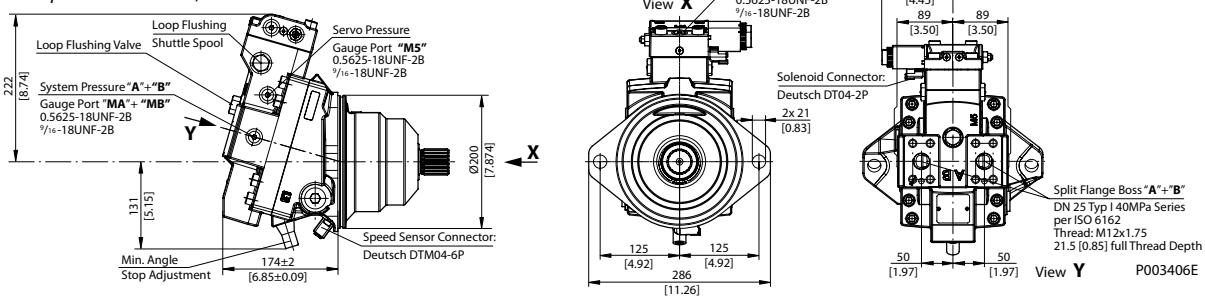
SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)



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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