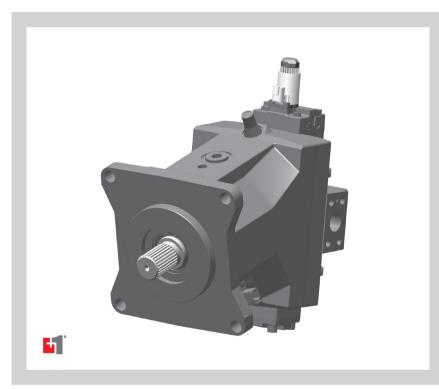




**Data Sheet** 

# H1-The new Generation of Hydrostatics 250 cm<sup>3</sup> Bent Axis Variable Motor



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

#### · 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

#### · Greater total efficiency

- Minimized losses
- Improved at high flow conditions



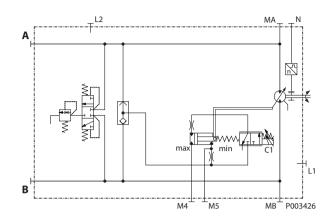
## **Technical specifications**

**Physical Properties** 

Features	Units	Size 250	
Displacement	cm³ [in³]	250 [15.25]	
Weight (with Electric Proportional Control)			
SAE ISO 3019/1	kg [lb]	87.7 [193]	
Operating Parameters			
Output Speed min-1 [rpm]	Rated	at max. displacement	2200
		at min. displacement (6°)	3650
		at 0° displacement	4050
	Maximum	at max. displacement	2800
		at min. displacement (6°)	4500
		at 0° displacement	4900
System Pressure bar [psi]	Working		450 [6527]
	Maximum		480 [6960]
	Min. low loop		7.5 [109]
Case Pressure bar [psi]	Rated		3 [44]
	Maximum		5 [73]
	Minimum		0.3 [4]

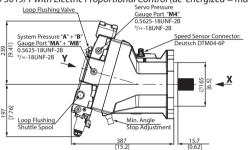
Schematic (example)

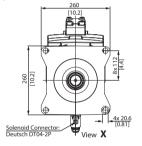
Electric Proportional Control
(de-energized = max. displacement)

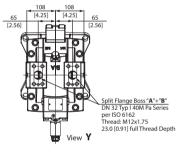


#### Installation Drawings

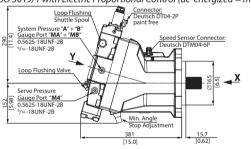
SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)

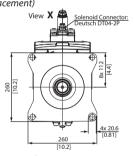


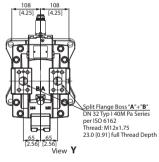




SAE ISO 3019/1 with Electric Proportional Control (de-energized = min. displacement)

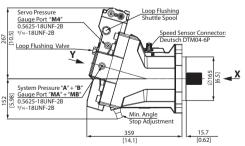


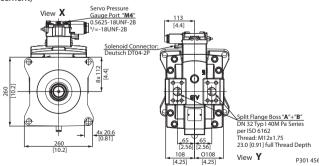




SAE ISO 3019/1 with Electric Two-Position Control (de-energized = min. displacement)

Pressure Compensator Override, Brake Pressure Defeat





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