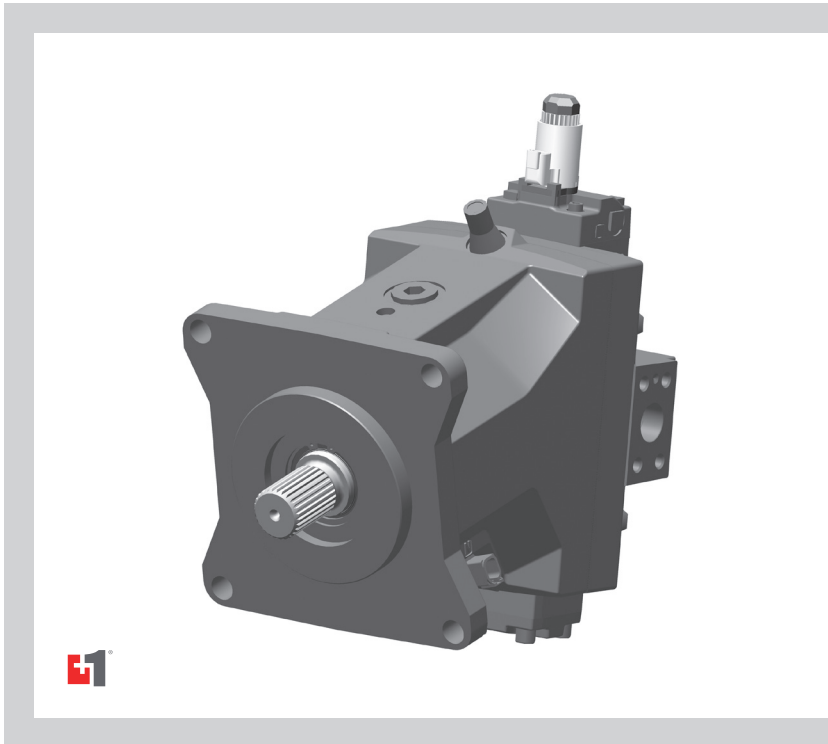




Data Sheet

# H1 Bent Axis Variable Motor 250 cm<sup>3</sup>



**Introduction**

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 range is built around an advanced electrical 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
- Optimized for electric control
  - Electric Two-position Control
  - Pressure Compensator Override
  - Proportional Pressure Compensator Override
  - Brake Pressure Defeat option
  - Electric Proportional Control
- Common controls across the entire motor family
  - Plus+1 Compliant control and sensor options
- Expanded functionality
  - Zero degree capability in conjunction with unchanged 32 degree feature
  - 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

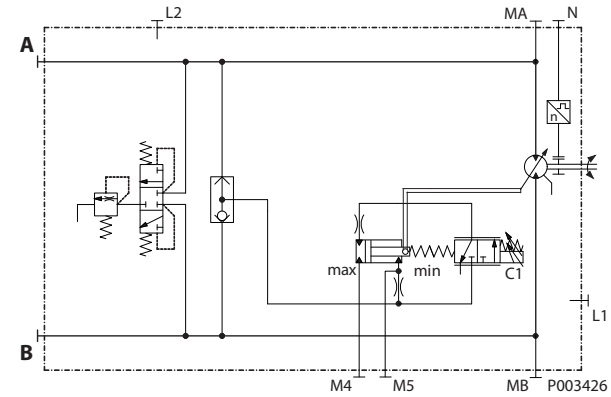
Features	Units	Size 250
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	250 [15.25]
<b>Weight</b> (with Electric Proportional Control)		
SAE ISO 3019/1	kg [lb]	87.7 [193]

Operating Parameters

<b>Output Speed min-1 [rpm]</b>	Rated	at max. displacement	2200
		at min. displacement (6°)	3650
		at 0° displacement	4050
	Maximum	at max. displacement	2800
		at min. displacement (6°)	4500
<b>System Pressure bar [psi]</b>	Working		450 [6527]
	Maximum		480 [6960]
	Min. low loop		7.5 [109]
<b>Case Pressure bar [psi]</b>	Rated		3 [44]
	Maximum		5 [73]
	Minimum		0.3 [4]

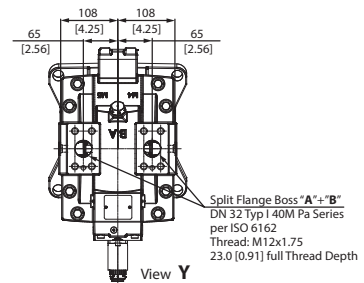
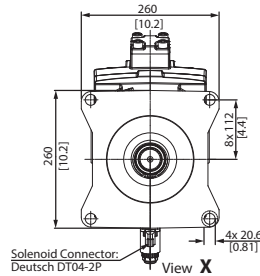
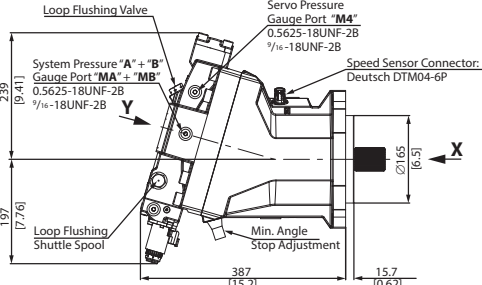
Schematic (example)

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

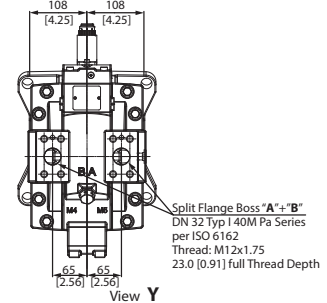
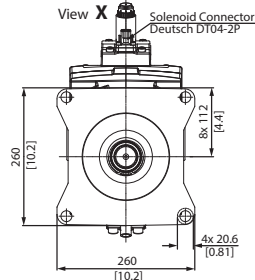
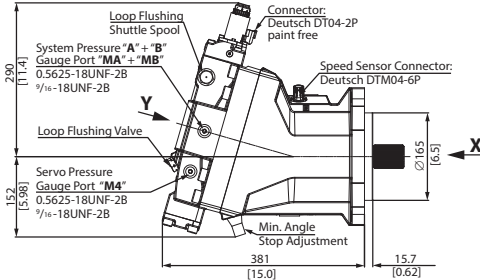


Installation Drawings

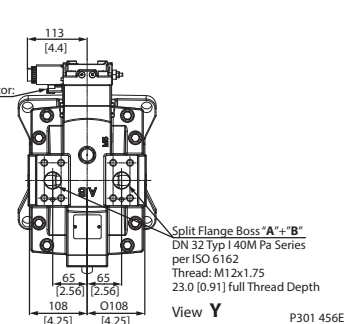
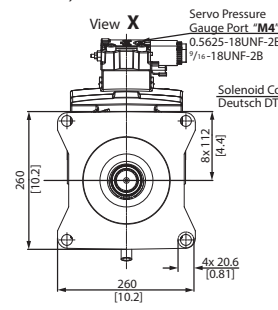
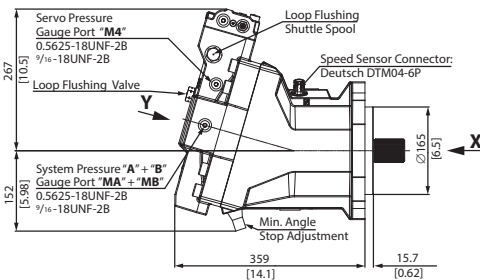
SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)



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



SAE ISO 3019/2 with Electric Two-Position Control (de-energized = min. displacement)  
Pressure Compensator Override, Brake Pressure Defeat



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