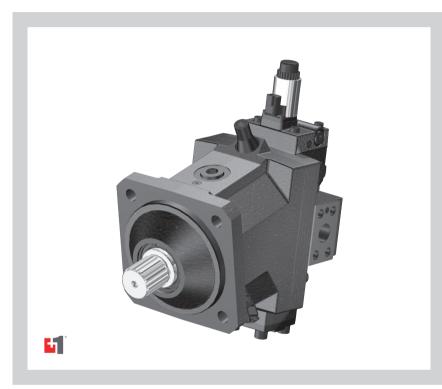




**Data Sheet** 

# H1-The new Generation of Hydrostatics 160 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**

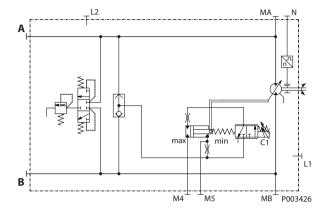
## **Physical Properties**

Features	Units	Size 160	
Displacement	cm³ [in³]	160 [9.76]	
Weight (with Electric Proportional Control)			
SAE ISO 3019/1	kg [lb]	61.9 [136]	
DIN ISO 3019/2		59.3 [131]	
Cartridge		54.7 [121]	
Operating Parameters			
Output Speed min-1 [rpm]	Rated	at max. displacement	2600
		at min. displacement (6°)	4250
		at 0° displacement	4750
	Maximum	at max. displacement	3300
		at min. displacement (6°)	5250
		at 0° displacement	5750
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)

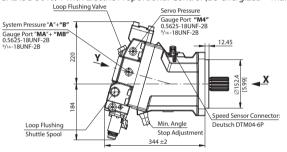
Electric Proportional Control

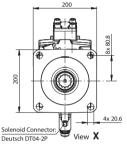
(de-energized = max. displacement)

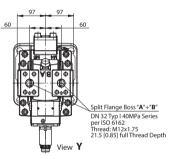


#### Installation Drawings

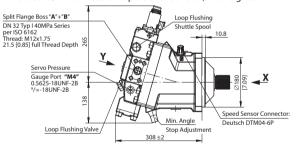
## SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)

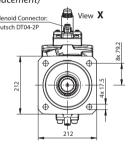


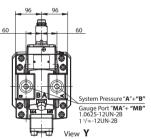




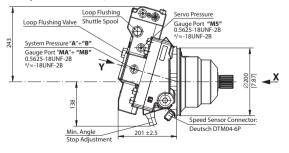
DIN ISO 3019/2 with Electric Proportional Control (de-energized = min. displacement)

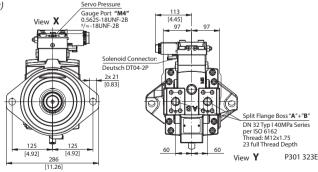






#### Cartridge with Electric Two-Position Control (de-energized = min. displacement) Pressure Compensator Override, Brake Pressure Defeat





#### Danfoss Power Solutions (US) Company 2800 East 13th Street Ames, IA 50010, USA Phone: +1 515 239 6000

#### Danfoss Power Solutions GmbH & Co. OHG Krokamp 35

D-24539 Neumünster, Germany Phone: +49 4321 871 0 Danfoss Power Solutions ApS Nordborgvej 81 NK-6430 Nordborg, Denmark Phone: +45 7488 2222

#### Danfoss Power Solutions Trading (Shanghai) Co., Ltd. Building #22, No. 1000 Jin Hai Rd Jin Qiao, Pudong New District Shanghai, China 201206 Phone: +86 21 3418 5200

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