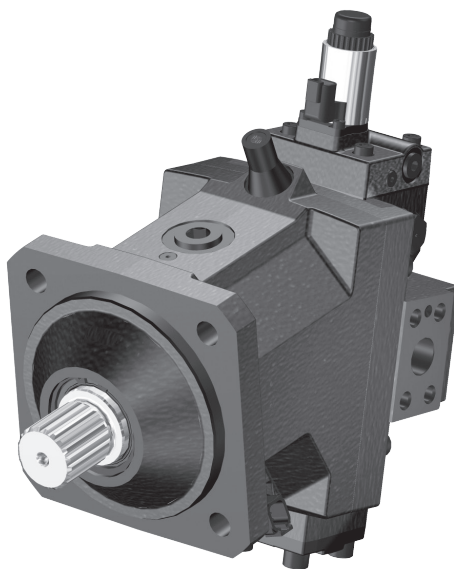


Data Sheet

# 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<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
- **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
- **Greater total efficiency**
  - Minimized losses
  - Improved at high flow conditions

Technical Specifications

Physical Properties

Features	Units	Size 160
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	160 [9.76]
<b>Weight</b> (with Electric Proportional Control)		
SAE ISO 3019/1	kg [lb]	61.9 [136]
DIN ISO 3019/2		59.3 [131]
Cartridge		54.7 [121]

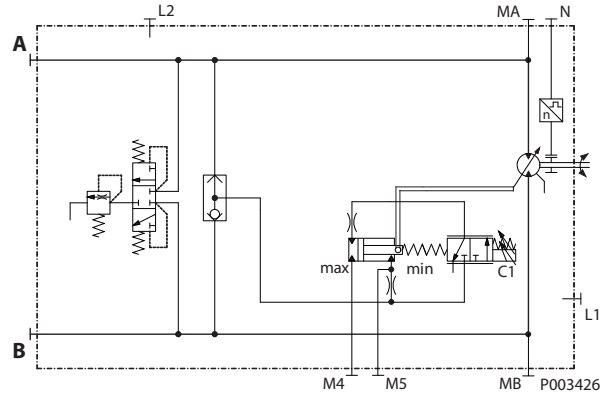
Operating Parameters

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)

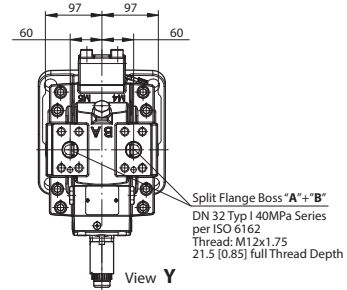
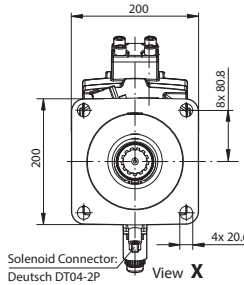
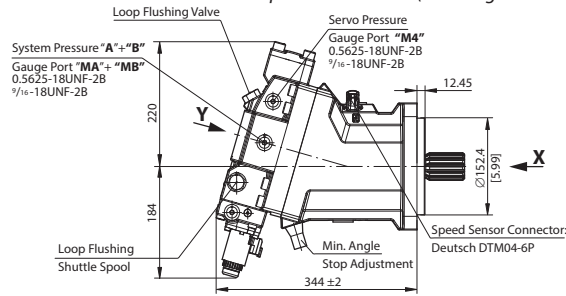
Electric Proportional Control

(de-energized = max. displacement)

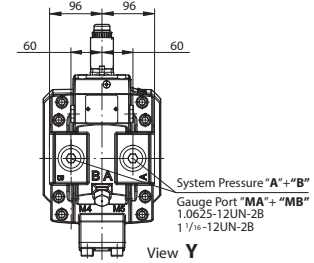
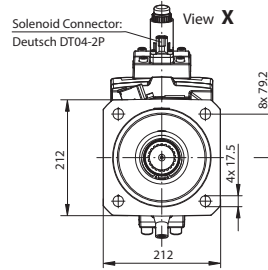
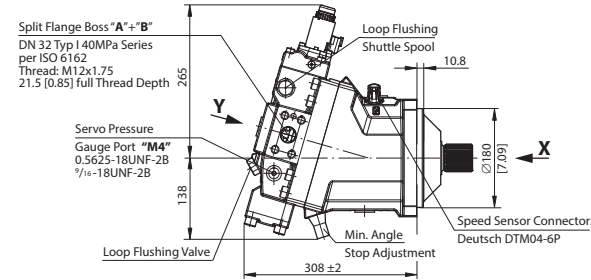


Installation Drawings

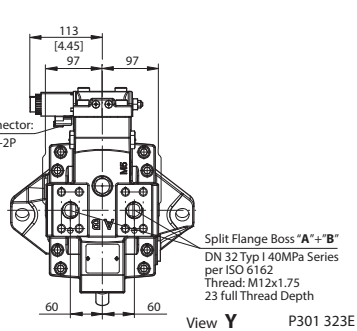
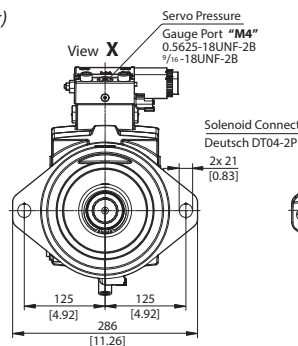
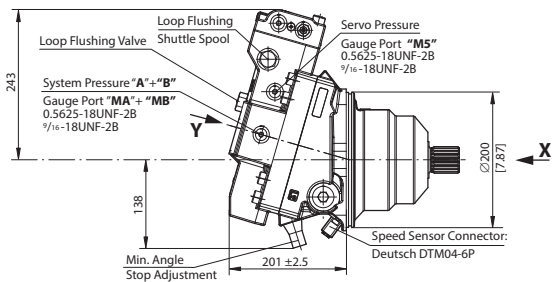
SAE ISO 3019/1 with Electric Proportional Control (de-energized = max. displacement)



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



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