

**Data Sheet** 

# **H1 Bent Axis Variable Displacement Motor** Size 080 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 servo-controlled hydrostatic pumps and bent axis variable motors are 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.



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#### **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 is online at www.danfoss.com

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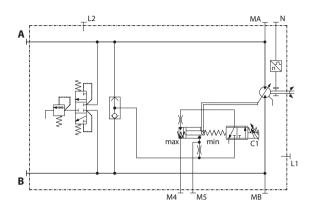
#### **Technical specifications**

Weight	SAE ISO 3019/1	34.8 kg [76.7 lb]
	DIN ISO 3019/2	34.4 kg [75.8 lb]
	Cartridge	33.0 kg [72.6 lb]
Output speed rated	Max. displacement	3200 min <sup>-1</sup> (rpm)
	Min. displacement (6°)	5300 min <sup>-1</sup> (rpm)
	0° displacement	5950 min <sup>-1</sup> (rpm)
Max. output speed	Max. displacement	4100 min <sup>-1</sup> (rpm)
	Min. displacement (6°)	6600 min <sup>-1</sup> (rpm)
	0° displacement	7200 min <sup>-1</sup> (rpm)
System pressure	Working	450 bar [6527 psi]
	Maximum	480 bar [6962 psi]
	Min. low loop	7.5 bar [109 psi]
Case pressure	Rated	3 bar [44 psi]
	Max.	5 bar [73 psi]
	Min.	0.3 bar [4 psi]

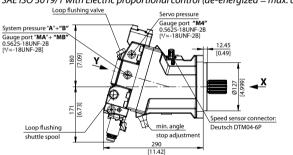
#### Schematic example

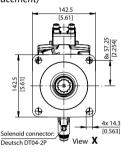
H1 bent axis motor with Electric Proportional Control

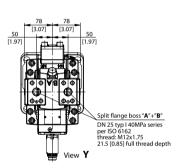
(De-energized = max. displacement)



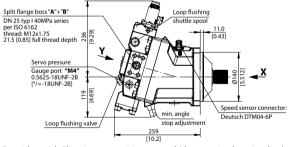
SAE ISO 3019/1 with Electric proportional control (de-energized = max. displacement)

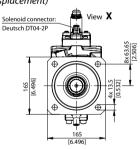


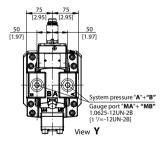




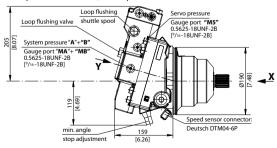
DIN ISO 3019/2 with Electric proportional control (de-energized = min. displacement)

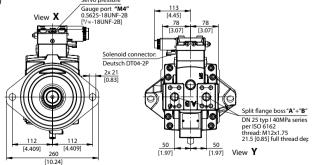






Cartridge with Electric two-position control (de-energized = min. displacement) Pressure compensator override, Brake pressure defeat





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