

# H1B-The new Generation of Hydrostatics 110 cm<sup>3</sup> Bent Axis Variable Motor

# Introduction

For more than 40 years, Sauer-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 servocontrolled 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.

Local Address:





H1B Bent Axis Variable Motor Frame Size 110

### 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
  - 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 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



# H1B-The new Generation of Hydrostatics 110 cm<sup>3</sup> Displacement Bent Axis Variable Motor

#### **Technical Specifications**

#### **Physical Properties**

Features	Units	Frame Size	
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	110 [6.71]	
Weight			
SAE ISO 3019/1		48.8 [108]	
DIN ISO 3019/2	kg [lb]	45.0 [99]	
Cartridge		41 8 [92]	

Weight with Electric Proportional Control

#### **Operating Parameters**

	1 5				
	Output Speed	Rated	at max. displacement		2900
			at min. displacement (6°)		4800
			at 0° displacement	min-1	5350
		Maximum	at max. displacement	[rpm]	3700
			at min. displacement (6°)		5950
			at 0° displacement		6500
	System Pressure	Working		450 [6527]	
	-	Maximum		480 [6960]	]
		Min. low loop	bar [nci]	7.5 [109]	]
Case Pressure Rated Maximum		Rated	Dar [psi]	3 [44]	]
		Maximum		5 [73]	]
		Minimum		0.3 [4]	

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



#### Installation Drawings

Servo Pressure

Gage Port "M4" 0.5625-18UNF-2B 9/16-18UNF-2B

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Loop Flushing Valve

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



10.8

Speed Se

Deutsch DTM04-6P



0 190 or Connector

85 [3.35] 50 System Pressure "A"+"B" Gage Port "**MA**"+ **"MB** 1.0625-12UN-2B 1 <sup>1</sup>/16-12UN-2B 0 Y t t View

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

[11±0.09]

Min. Angle

Stop Adjustment

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ÉP.





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