Data Sheet

H1-The new Generation of Hydrostatics 080 cm³ Bent Axis Variable Motor

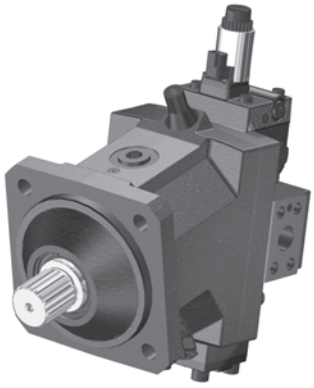
Introduction

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 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.

Local Address:



H1 Bent Axis Variable Motor
Frame Size 080

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 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

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H1-The new Generation of Hydrostatics 080 cm³ Displacement Bent Axis Variable Motor

Technical Specifications

Physical Properties

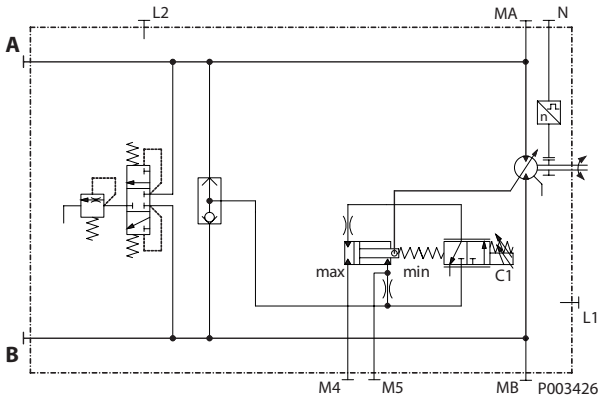
Features	Units	Frame size
Displacement	cm³ [in³]	080 [4.88]
Weight		
SAE ISO 3019/1	kg [lb]	34.8 [76.9]
DIN ISO 3019/2		34.4 [76.0]
Cartridge		33.0 [72.8]

Weight with Electric Proportional Control

Operating Parameters

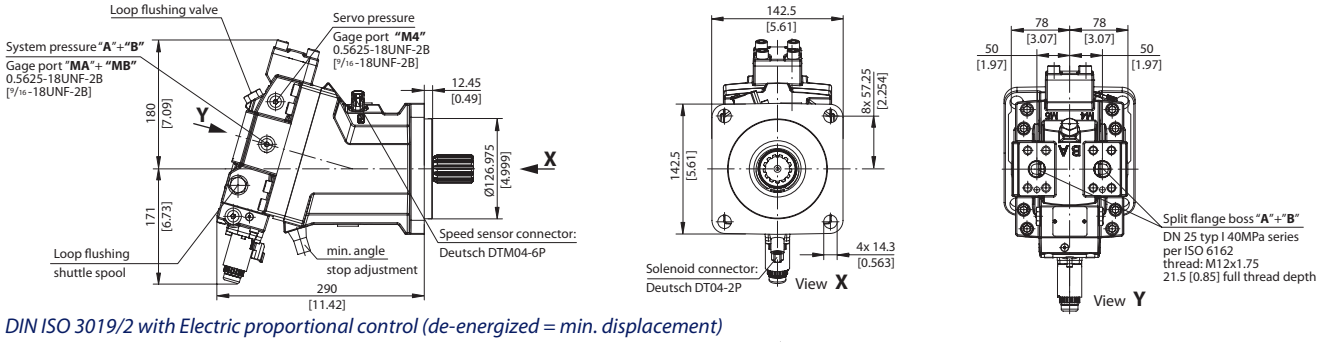
Output speed min-1 [rpm]	Rated	at max. displacement	3200
		at min. displacement (6°)	5100
		at 0° displacement	5500
	Maximum	at max. displacement	4100
		at min. displacement (6°)	6350
		at 0° displacement	6750
System pressure bar [psi]	Working		450 [6527]
	Maximum		480 [6960]
	Min. low loop		7.5 [109]
Case pressure bar [psi]	Rated		3 [44]
	Maximum		5 [73]
	Minimum		0.3 [4]

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

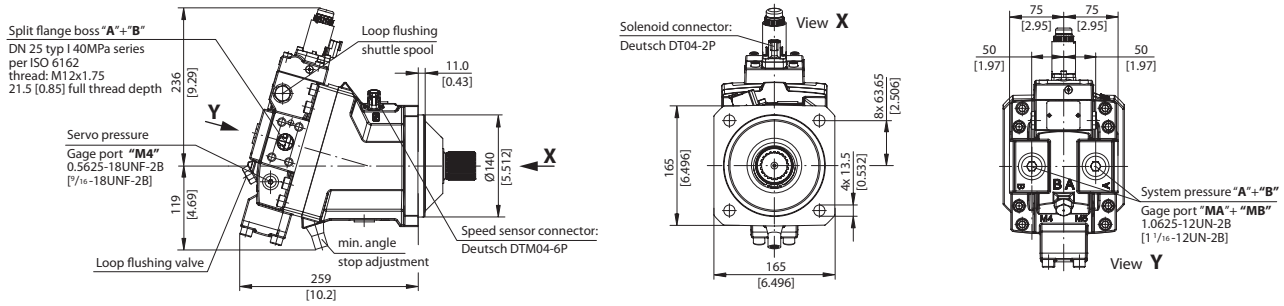


Installation Drawings

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