

Data Sheet

Directional Control Valve

DVG 100



The DVG 100 is a member of Danfoss' portfolio of sectional valves platforms. It offers the known market leading controllability within valves.

Designed to work up to 100 L/min of inlet flow, the DVG 100 offers a variety of actuations, spools, and features for a flexible valve configuration.

A key feature is the modular build concept. This concept enables engineers to combine stacks of flexible slice-sections to meet precise requirements.

The DVG 100 is designed as an open center directional control valve and boasts the optimization of low pressure drop, both during operation and in idle, minimizing cooling needs and fuel expenses.



Features

- 44 mm [1.732 in] DVB module width
- Open center basic modules with three circuit options: Parallel, Tandem, and Series
- P-channel load drop check valve
- Work port shock valves with anti-cavitation or anti-cavitation valves
- DVM mechanical actuation with or without adjustment screws
- DVH hydraulic proportional actuation
- DVHC electrical proportional actuation (high current PWM)
- DVHCO electrical on/off actuation
- Stackable with DVG 60
- Spools with closed, open, or throttle center at neutral position
- Float spool with 4th position detent for mechanical or electrical actuation

Comprehensive technical literature is online at www.danfoss.com



DVG 100 Technical Data

Maximum pressure	Port P, A/B continuous	310 bar	[4500 PSI]
	Port P intermittent	310 bar	[4500 PSI]
	Port A/B intermittent	330 bar	[4785 PSI]
	Port T, static/dynamic	40 bar	[580 PSI]
Oil flow rated	DVG 60 - Port P, A/B	100 L/min	[26.4 US gal/min]
Spool travel, standard	Proportional range	± 7 mm	[± 0.28 in]
	Deadband	± 1.5 mm	[± 0.06 in]
Spool travel, float position	Proportional range	± 5.2 mm	[± 0.20 in]
	Float position	+ 10 mm	[+ 0.39 in]
Maximum internal leakage at 100 bar [1450 PSI] and 32 mm²/s	A/B → T, DVB without PVLP	10 cm ³ /min	[0.6 in ³ /min]
	A/B → T, DVB with PVLP	15 cm ³ /min	[0.91 in ³ /min]
Ambient temperature		-30 to 60°C	[-22 to 140°C]
Oil viscosity	Operating range	12 to 75 mm ² /s	[65 to 347 SUS]
	Minimum viscosity	4 mm ² /s	[39 SUS]
	Maximum viscosity	460 mm ² /s	[2128 SUS]
Filtration	Maximum contamination (ISO 4406)	23/19/16	
DVH hydraulic actuator	Control pressure range	3.5 to 18 bar [50 to 261 PSI]	
	Maximum pilot pressure	35 bar [507 PSI]	
	Maximum pressure at T port	10 bar [145 PSI]	
DVHC proportional actuator		12 VDC	24 VDC
	Controller output current range	0 to 2000 mA	0 to 1000 mA
	Resistance	6.15 Ω ± 10%	25.0 Ω ± 10%
	PWM Frequency recommended	150 Hz	
	Pilot oil pressure range	25 to 30 bar [362 to 435 PSI]	
	Pressure control range	8 to 23 bar [116 to 333 PSI]	
DVHCO on-off actuator	Voltage Range (12 Vcc)	12 VDC	24 VDC
	Voltage range	11 to 15 VDC	22 to 30 VDC
	Current (at 22°C coil temperature)	0.36 A	0.18 A
	Resistance (at 22°C coil temperature)	33.3 Ω ± 10%	130.9 Ω ± 10%
	Duty cycle	100%	
	Response time	300 ms	
	Pilot pressure	10 to 28 bar	
Connector type and Protection Class	Deutsch DT04-2P IP67		

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.