

Data Sheet

Load Independent Proportional Valve PVG 100

PVG 100 is a load independent proportional valve with flow up to 180 l/min [48 gpm] and pressures up to 350 bar [5076 psi]. It offers equitable flow sharing for precise control of multiple machine functions under varying load conditions and pressure requirements.

Building on the modular, flexible, and proven Danfoss load-sensing proportional valve concept, PVG 100 offers easy, fast configuration, thereby helping vehicle designers meet tight time-to-market deadlines. The new valve is positioned between the existing Danfoss PVG 32 and PVG 120 with flows up to 130 l/min [34.4 gal/min] and 240 l/min [63.4 gal/min] respectively.

PVG 100 optimizes system design for engineers who must incorporate new emissions restrictions by providing a more efficient hydraulic system that maximizes power and conserves energy. Typical applications include backhoes, telehandlers, wheel loaders, forklifts, and forestry equipment.

Features

- Flow sharing for maximum controllability and safety. All sections will continue to function regardless of load differences and pump flow.
- Load-independent flow control for smooth operation and improved productivity.
- Load-sensing technology for higher efficiency, safety, reduced energy consumption, and longer system lifetime.
- Configurable as advanced electrically controlled proportional valve as well as load-sensing directional control valve.
- Modular design providing a wide range of configuration possibilities.

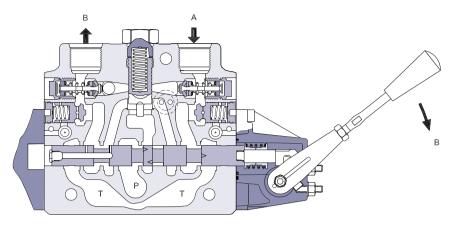
- Up to eight different sections per valve group. Maximum flow per section: 180 l/min [48 gpm].
- Can be configured in combination with our range of HIC hybrid modules and/or PVG 32 for maximum flexibility.
- Mechanical, hydraulic, and electrical actuation options.

Comprehensive technical literature online at *powersolutions.danfoss.com*





Sectional Drawing PVB



157-749.10

Technical Data PVG 100

Max. pressure	Port P continuous	350 bar	[5075 psi]
	Port A/B	350 bar	[5075 psi]
	Port T, static / dynamic	25 bar/40 bar	[365/580 psi]
	Port T0, static / dynamic	5 bar/10 bar	[75/145 psi]
Oil flow, rated (See characteristics,	Port P	250 l/min	[66 US gal/min]
	Port A/B, with press. comp.	180 l/min	[47.6 US gal/min]
Spool travel	Standard	± 7 mm	[±0.28 in]
Spool travel, float position spool $P \rightarrow B \rightarrow F$	Proportional range	5.5 mm	[±0.22 in]
	Float position	8 mm	[±0.32 in]
Dead band, flow control spools	Standard	± 1.5 mm	[±0.06 in]
Max. spool leakage at 100 bar [1450 psi] and 21 mm ² /s [102 SUS]	A/B to T, without shock valve	20 cm ³ /min	[1.85 in ³ /min]
	A/B to T, with shock valve	25 cm ³ /min	[2.15 in ³ /min]
Max. internal leakage shock valve pilot operated check valve at 200 bar [2900 psi] and 21 mm ² /s [102 SUS]	A/B to T, without shock valve	1 cm ³ /min	[0.06 in ³ /min]
	A/B to T, with shock valve	6 cm ³ /min	[0.37 in ³ /min]
Oil temperature (inlet temperature)	Recommended temperature	30 to 60°C	30 to 60°C
	Min. temperature	-30°C	[–22°F]
	Max. temperature	+90°C	[194°F]
Ambient temperature		-30 to +60°C	[-22 to +140°F]
Oil viscosity	Operating range	12 - 75 mm²/s	[65 - 347 SUS]
	Min. viscosity	4 mm ² /s	[39 SUS]
	Max. viscosity	460 mm ² /s	[2128 SUS]
Filtration	Max. contamination (ISO 4406)	23/19/16	23/19/16

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 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.