



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.

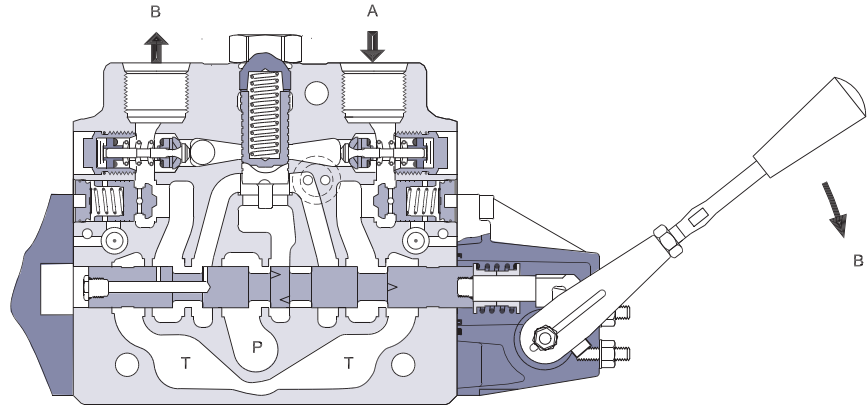
Building on the modular, flexible, and proven Danfoss load-sensing proportional valve concept, PVG 100 offers easy, fast configuration, thereby helping vehicle designers meet tight time-to-market deadlines. The new valve is positioned between the existing Danfoss PVG 32 and PVG 120 with flows up to 130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

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→B→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 | [86 to 140°F] |
| | 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 mm ² /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 |

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