

Data Sheet

Proportional Valve Group

PVG 16



The PVG 16 is a new member of the PVG family of valves. The PVG portfolio now comprises PVG 16, 32, 100 and 120 – providing flow up to 240 l/min.

A common feature is the modular build concept. This enables engineers to combine stacks of flexible slice-sections across the entire PVG family, making it possible to build up a valve group that meets precise requirements.

Furthermore, the compact external dimensions of the valve remain unchanged, no matter what combination is specified.

The PVG 16 is also designed as a load-sensing directional control valve, which helps improve application efficiency – reducing both cooling requirements and fuel expenses.

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Features

- 40 mm [1.575 in] PVB module width
- PVB with BSP and UNF threads
- Compensated basic modules
- Uncompensated basic modules
- P-channel check valve
- Shock valves
- PVM with or w/o adjustment screws
- PVH, hydraulic actuation
- PVEO and PVEA
- Combination with PVG 32, 100 and 120

Comprehensive technical literature online
at powersolutions.danfoss.com

Available spools

- Closed or open neutral position
- Float
- Assymetrical flow options
- Electrical/mechanical or hydraulic actuation
- 5, 10, 25, 40 or 60 l/min [1.32, 2.64, 6.60, 10.57 or 15.85 US gal/min]

Technical data

Maximum pressure	Port P continuous	350 bar ¹	[5075 psi]
	Port P intermittent	400 bar	[5800 psi]
	Port A/B continuous	380 bar	[5510 psi]
	Port A/B intermittent	420 bar	[6090 psi]
	Port T, static/dynamic	25/40 bar	[365/580 psi]
Oil flow rated	Port P	140/230 l/min	[37/61 US gal/min]
	Port A/B	60 l/min	[16 US gal/min]
Spool travel	Deadband	± 1.5 mm	[± 0.06 in]
	Proportional range	± 5 mm	[± 0.2 in]
	Float position	± 7.5 mm	[± 0.3 in]
Maximum internal leakage at 100 bar [1450 psi] and 21 mm ² /s [102 SUS]	A/B → T without shock valve	20 cm ³ /min	[1.85 in ³ /min]
	A/B → T with shock valve (system setting 30 bar [435 psi])	25 cm ³ /min	[2.15 in ³ /min]
Ambient temperature		-30 → 60 °C	[-22 → 140 °F]
Oil viscosity	Operating range	12 - 75 mm ² /s	[65 - 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	
PVM regulating range	Proportional	13.9°	
	Float position	22.3°	
PVM operating force	PVM + PVMD	Neutral position	2.2 ± 0.2 N•m [5.0 ± 1.8 lbf•in]
		Maximum stroke	2.8 ± 0.2 N•m [6.3 ± 1.8 lbf•in]
	PVM + PVE ²	Neutral position	2.2 ± 0.2 N•m [5.0 ± 1.8 lbf•in]
		Maximum stroke	2.8 ± 0.2 N•m [6.3 ± 1.8 lbf•in]
	PVM + PVH	Neutral position	2.7 ± 0.2 N•m [23.9 ± 1.8 lbf•in]
		Maximum stroke	7.1 ± 0.2 N•m [62.8 ± 1.8 lbf•in]
PVH pressure	Regulating range	5 - 15 bar	[75 - 220 psi]
	Maximum pilot pressure	30 bar	[435 psi]
	Maximum pressure on T-port	10 bar	[145 psi]
PVE input voltage ³	Supply	11 - 32 V _{DC}	
	Regulating range	25 - 75% of supply voltage	
PVE SP pin output voltage ³	Float	0.5 V _{DC}	
	Flow to B-port	1.25 - 2.5 V _{DC}	
	Neutral	2.5 V _{DC}	
	Flow to A-port	2.5 - 3.75 V _{DC}	
	Error	5 V _{DC}	

¹ With PVSI end plate. Using PVS end plate maximum 300 bar [4351 psi].

² PVE without voltage.

³ Voltage is measured between spool output pin and ground (GND).

PVG 16 Technical Information	L1214235
PVE-CI Technical Information	L1505234