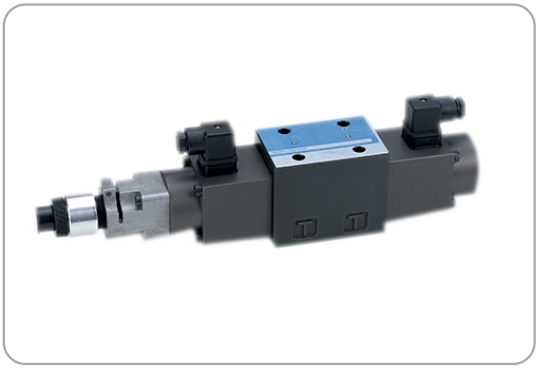
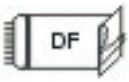
DPG-03 SERIES

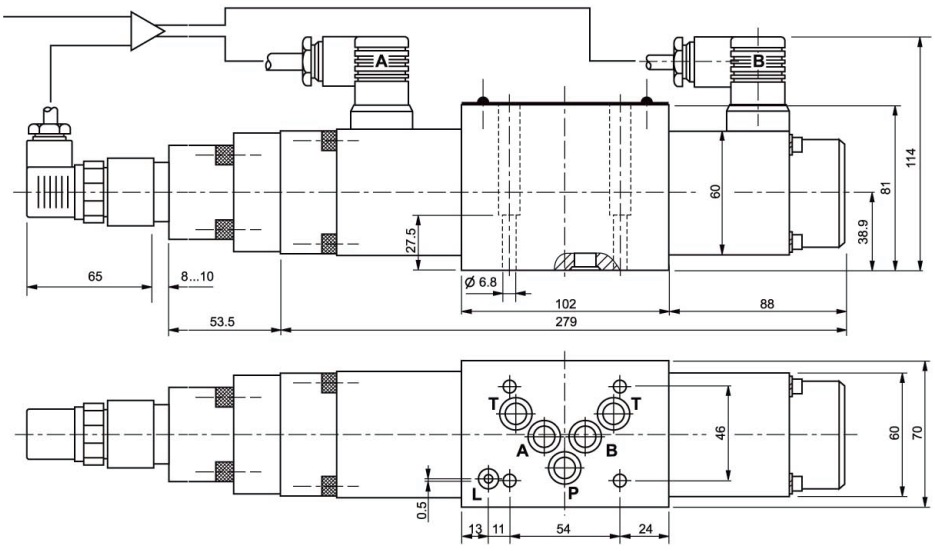
Characteristics



Models

Symbol	A/VA max.	△p [bar]	Qnom.:l/min [l/min]		Pnom. [bar]	[kg]	Models
	3.7/60	5	32	32	P,A,B: 315 T:250	8	DPG-03-3C2-32
			63	63			DPG-03-3C2-63
	3.7/60	5	32	32	P,A,B: 315 T:250	8	DPG-03-3C40-32
			63	63			DPG-03-3C40-63
			DPG-03			0.3	DPE-03

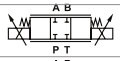
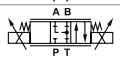
Dimensions



Dimensions of mounting hole configuration NG 10 ISO 4401 (Additional port L)

DPG-03 SERIES

Characteristics

General		
Construction	Spool type valve	
Actuation	Proportional solenoid with position control	
Connection type	Subplate, mounting hole configuration NG 10 ISO 4401 + L	
Mounting position	optional	
Ambient temperature range	−20 ~ +50℃	
Hydraulic		
Pressure medium	Hydraulic oil as per DIN 51 524 ... 535, other fluids after prior consultation	
Viscosity, recommended	20 ~ 100 mm^2/s	
max. permitted	10 ~ 800 mm^2/s	
Pressure medium temperature	−20 ~ +80℃	
Filtration In line with operational reliability and service life	Permissible contamination class of pressure medium as per NAS 1638	Achieved using filter β_X = 75
	8	X = 10
	9	20
	10	25
Flow direction	cf. symbol	
Nominal flow (at △p=5bar)*	32 ℓ/min	63 ℓ/min(per channel)
Leakage/Metering edge (△p=100 bar)		A→ T=80 cm^3/min B→ T=80 cm^3/min
Leakage drain (△p=5 bar)		A→ T=0.4 ~ 0.8 ℓ/min B→ T=0.4 ~ 0.8 ℓ/min
Max. working pressure	Ports P, A, B: 315 bar Port T: 250 bar Port L: ≦ 2 bar	
Electrical		
Cyclic duration factor	100%	
Degree of protection	IP 65 as per DIN 40 050 and IEC 14 434/5	
Solenoid connector	Connector DIN 43 650/ISO 4400	
Position transducer connector	Special connector	
Solenoid current	max. 3.7 A	
Coil resistance R_{20}	2.5 Ω	
Max. power consumption at 100% load and operational temperature	60 VA max	
Static/Dynamic		
Hysteresis	≦0.75%	
Range of inversion	≦0.5%	
Manufacturing tolerance	≈10%	
Response time 100% signal change 10% signal change	≈50 ms ≈20 ms	

All characteristic values in connection with proportional amplifier: DPE-03

***Nominal flow**

This is always based on a pressure differential of △p=5 bar at the throttle point.
Where other pressure differentials are involved, flow is calculated according to the following formula:

$$Q_X = Q_{nom.} \cdot \sqrt{\frac{\triangle P_X}{5}}$$

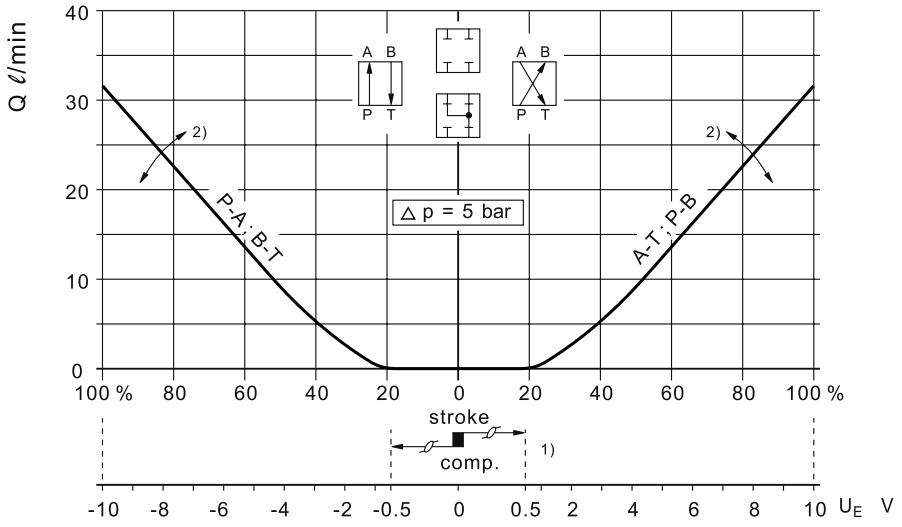
However, the **operating limits** must be borne in mind here.
When the operating limits are exceeded, the ensuing flow forces lead to uncontrollable spool movements.
To achieve effective limitation of △p, use is made of **pressure compensators.**

DPG-03 SERIES

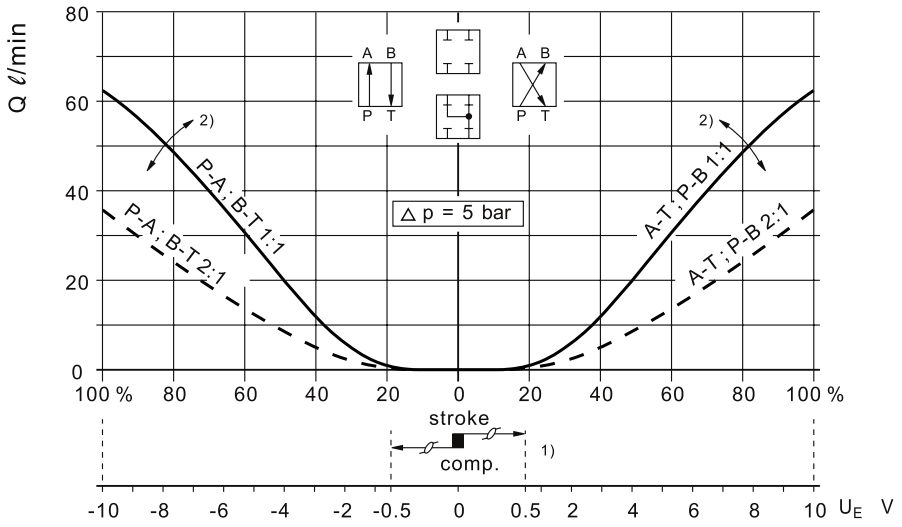
Performance curves

v = 35 mm²/s

Qnom. = 32 ℓ/min



Qnom.=63 ℓ/min



Valve amplifier

1) Zero adjustment → ±0.5 V

2) Gain adjustment

Operating limits