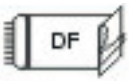
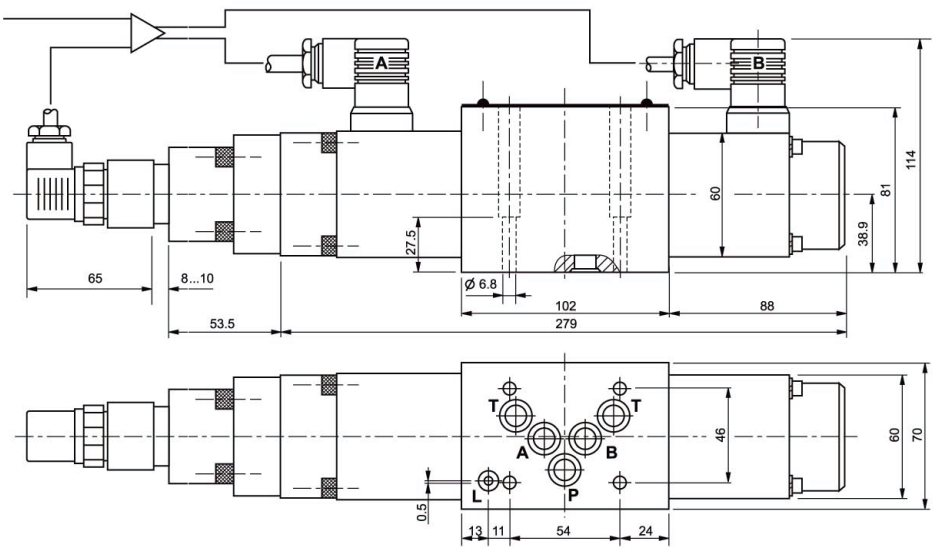
DPG-03 SERIES

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

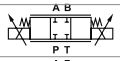
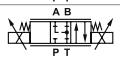
Dimensions



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°C	
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°C	
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 Δp=5bar)*	32 ℓ/min	63 ℓ/min(per channel)
Leakage/Metering edge (Δp=100 bar)		A→ T=80 cm^3/min B→ T=80 cm^3/min
Leakage drain (Δp=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	≈50 ms	
10% signal change	≈20 ms	

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

***Nominal flow**

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

$$Q_x = Q_{nom.} \cdot \sqrt{\frac{\Delta P_x}{5}}$$

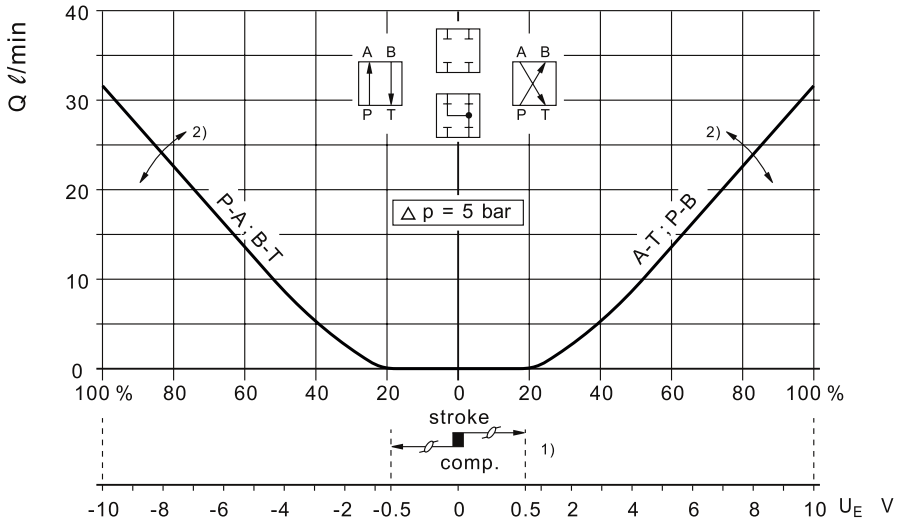
However, the **operating limits** must be borne in mind here.
When the operating limits are exceeded, the ensuing flow forces lead to uncontrollable spool movements.
To achieve effective limitation of Δp, use is made of **pressure compensators.**

DPG-03 SERIES

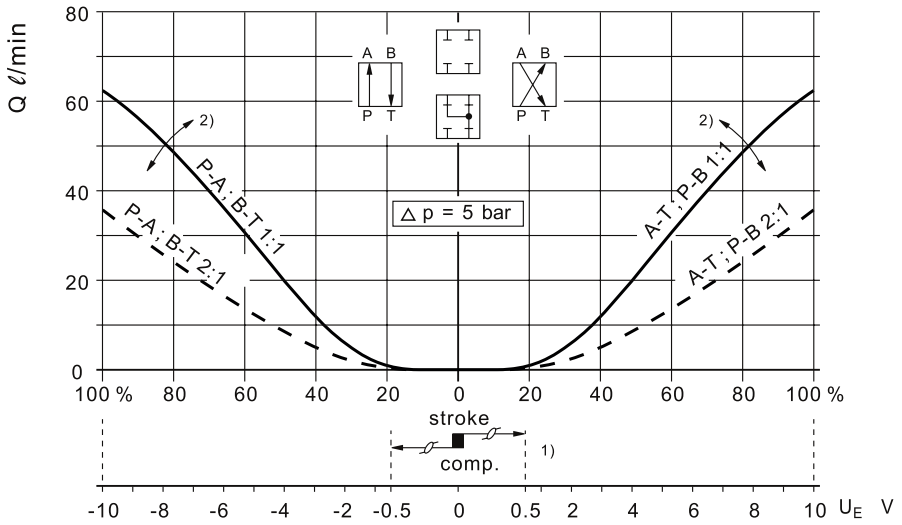
Performance curves

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