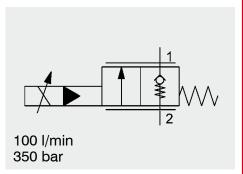
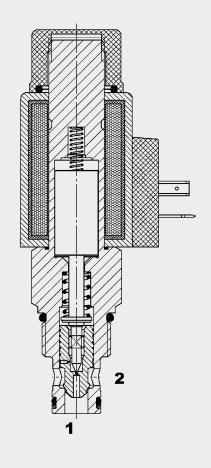
# DADINTERNATIONAL



## **Proportional** Flow Controller **Poppet Type, Pilot-Operated, Normally Closed** SAE-10 Čartridge - 350 bar

PWS10Z-11

### **FUNCTION**



### **FEATURES**

- Stepless adjustment of the flow, depending on the coil current.
- Excellent stability throughout the entire flow range
- Excellent dynamic performance
- External surfaces zinc-plated
- Hardened and ground valve components to ensure minimal wear and extended service life
- Coil seals protect the solenoid system
- Low pressure drop by CFD optimized flow path
- On request: mechanical adjustment of one point of the curve (Version 11, without
- Optional: Soft shift function with extended switching times possible

### **SPECIFICATIONS**

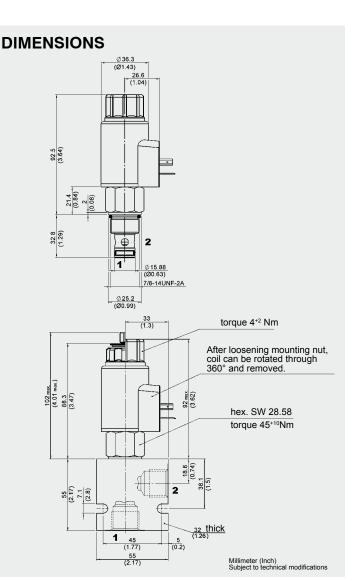
Operating pressure:	max. 350 bar		
Nominal flow:	max. 100 l/min		
Internal leakage:	leakage-free		
	(max. 5 drops = 0,25 cm³/min at 350 bar)		
Media operating temperature range:	min20 °C to max. +100 °C		
Ambient temperature range:	min20 °C to max. +60 °C		
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2		
Viscosity range:	min. 10 mm²/s to max. 420 mm²/s		
Filtration:	Class 19/17/14 to ISO 4406 or cleaner		
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)		
Installation:	No orientation restrictions		
Material:	Valve body:	free-cutting steel	
	Piston:	hardened and ground steel	
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)	
	Back-up rings:	PTFE	
	Coil:	steel, polyamide	
Cavity:	FC10-2		
Weight:	0.5 kg		
Electronic data:			
Control current:	850 mA, 18.0 Ohm (24 Volt) 1750 mA, 4.1 Ohm (12 Volt)		
Dither frequency:	120 Hz recommended (120 – 250 Hz)		
Hysteresis with dither:	4-6% of I <sub>nom</sub>		
Repeatability:	≤ 1.5 % of I <sub>nom</sub>		
Reversal error:	≤ 2 % of I <sub>nom</sub>		
Response sensitivity:	≤ 1 % of I <sub>nom</sub>		
Type of coil:	Coil (12 or 24) P.	50-1836	
NOTE			

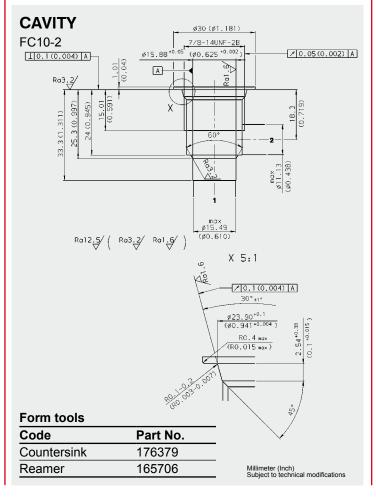
The proportional flow controller PWS10Z-11 is a pilot-operated, normally closed, spring-loaded poppet-type flow control valve.

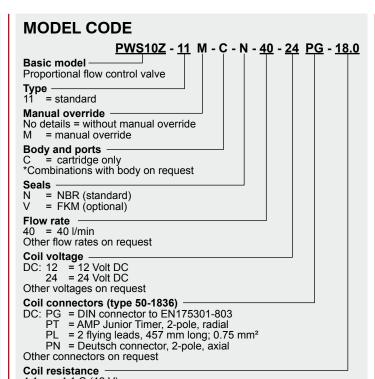
It is non-compensated and its function is to smoothly control the flow from port 2 to port 1.

The energization of the coil opens the pilot stage and oil flows across an orifice to the back of the main piston. The resulting pressure differential causes the main piston to follow the pilot stage. When combined with a pressure compensator the proportional flow controller can be used as a 2-way flow regulator – for example when required to lift/lower variable loads at the same velocity.

In order to achieve optimal function, any trapped air should be vented using the bleed screw on the face of the pole tube.







### Standard models

 $4.1 = 4.1 \Omega (12 \text{ V})$   $18.0 = 18.0 \Omega (24 \text{ V})$ 

Model code	Part No.
PWS10Z-11-C-N-40-12PG-4.1	3525207
PWS10Z-11-C-N-40-24PG-18.0	3525205

Other models on request

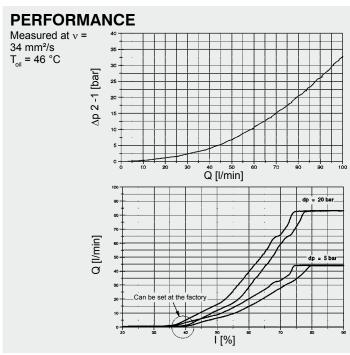
### Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH102-SB4	3037594	Steel, zinc-plated	G1/2	420 bar
FH102-AB4	3037777	Aluminium, anodized	G1/2	210 bar

Other line bodies on request

### Seal kits

Code	Material	Part No.
FS102-N SEAL KIT	NBR	3033872
FS102-V SEAL KIT	FKM	3051757



### NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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