



Proportional Flow Control Cartridge Valves, 10, 12, 16 Series

Introduction

For more than 40 years, Sauer-Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway applications around the world. We have become a preferred supplier by delivering know how in motion™.

Sauer-Danfoss proportional flow control valves provide optimized valve solutions in a compact package with higher pressure and flow capabilities than previous valves.

All proportional control cartridge valves are PLUS+1 compliant. PLUS+1 allows you to rapidly develop and customize machine control systems.

The compensated design regulates flow, regardless of the load, providing additional functionality.



F101882

Features:

- Compact size
- Optimum control
- PLUS+1™ compliant
- Environmentally robust coils
- Normally open and normally closed options
- Integrated compensation

Restrictive spool (non-compensated)

- Two-way, two-position, spool-type valves provide non-compensated flow to machine function (electrically actuated needle valve).
- Commonly used for pump unloading, variable flow control of an actuator, and bleed off circuits that do not require internal compensation (load-independent flow)

Restrictive poppet (non-compensated)

- Two-way, two-position, poppet-type valves provide non-compensated flow and low leakage load holding to machine function.
- Commonly used for load lowering or raising circuits that do not require internal compensation (load-independent flow) but need low-leakage load holding

Priority, pressure-compensated, 3-way

- Three-ported design provides an infinitely variable flow to the priority port, regardless of load pressure changes in the circuit. Remaining flow is sent to the third port.
- Commonly used to direct fixed flow to a priority function or circuit, while secondary flow is available to other intermittent functions or bypassed to tank

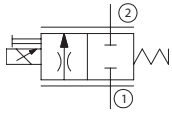
Restrictive, pressure-compensated, 2-way

- Two-ported design provides an infinitely variable flow, regardless of load pressure changes in the circuit.
- Commonly used for variable meter-in or meter-out circuits to control actuator speeds or for controlling flow to a complete circuit, where compensation is required (load-independent flow)

Local Address:

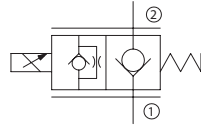
Schematics*

PSV10-NC



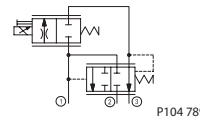
P104 832

PSVP10-NCR



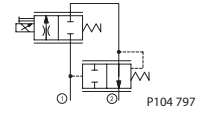
P104 854

PFC10-PC



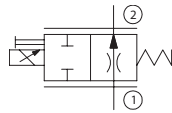
P104 789

PFC10-RC



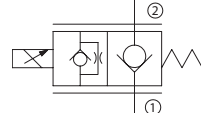
P104 797

PSV10-NO



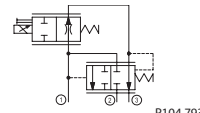
P104 836

PSVP10-NOR



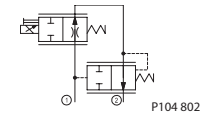
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PFC10-PO



P104 793

PFC10-RO



P104 802

* Schematics for 10 series are shown. 12 and 16 series use the same schematics.

Technical Data

Model No.	Cavity	Description	Flow		Pressure	
			l/min	US gal/min	bar	psi
Restrictive spool, non compensated, normally closed						
PSV10-NC	SDC10-2	Non-compensated, spool, normally closed	40	11	260	3770
PSV12-NC	SDC12-2	Non-compensated, spool, normally closed	80	21	260	3770
PSV16-NC	SDC16-2	Non-compensated, spool, normally closed	100	26	260	3770
Restrictive spool, non compensated, normally open						
PSV10-NO	SDC10-2	Non-compensated, spool, normally open	45	12	260	3770
PSV12-NO	SDC12-2	Non-compensated, spool, normally open	100	26	260	3770
PSV16-NO	SDC16-2	Non-compensated, spool, normally open	110	29	260	3770
Restrictive poppet, non compensated, normally closed						
PSVP10-NCR	SDC10-2	Non-compensated, poppet, normally closed	55	15	260	3770
PSVP12-NCR	SDC12-2	Non-compensated, poppet, normally closed	70	18	260	3770
PSVP16-NCR	SDC16-2	Non-compensated, poppet, normally closed	90	24	260	3770
Restrictive poppet, non compensated, normally open						
PSVP10-NOR	SDC10-2	Non-compensated, poppet, normally open	45	12	260	3770
PSVP12-NOR	SDC12-2	Non-compensated, poppet, normally open	70	18	260	3770
PSVP16-NOR	SDC16-2	Non-compensated, poppet, normally open	80	21	260	3770
Priority pressure Compensated, 3-way, normally closed						
PFC10-PC	SDC10-3	Compensated, 3-way, normally closed	40	11	260	3770
PFC12-PC	SDC12-3	Compensated, 3-way, normally closed	65	17	260	3770
PFC16-PC	SDC16-3	Compensated, 3-way, normally closed	85	22	260	3770
Priority pressure Compensated, 3-way, normally open						
PFC10-PO	SDC10-3	Compensated, 3-way, normally open	35	9	260	3770
PFC12-PO	SDC12-3	Compensated, 3-way, normally open	70	18	260	3770
PFC16-PO	SDC16-3	Compensated, 3-way, normally open	90	24	260	3770
Priority pressure Compensated, 2-way, normally closed						
PFC10-RC	SDC10-2	Compensated, 2-way, normally closed	30	8	260	3770
PFC12-RC	SDC12-2	Compensated, 2-way, normally closed	65	17	260	3770
PFC16-RC	SDC16-2	Compensated, 2-way, normally closed	90	24	260	3770
Priority pressure Compensated, 2-way, normally open						
PFC10-RO	SDC10-2	Compensated, 2-way, normally open	30	8	260	3770
PFC12-RO	SDC12-2	Compensated, 2-way, normally open	60	16	260	3770
PFC16-RO	SDC16-2	Compensated, 2-way, normally open	85	22	260	3770

For more information on Sauer-Danfoss cartridge valves and HICs, refer to *Cartridge Valves Technical Information 520L0588*. See the proportional valves section for detailed information on proportional flow control valves.