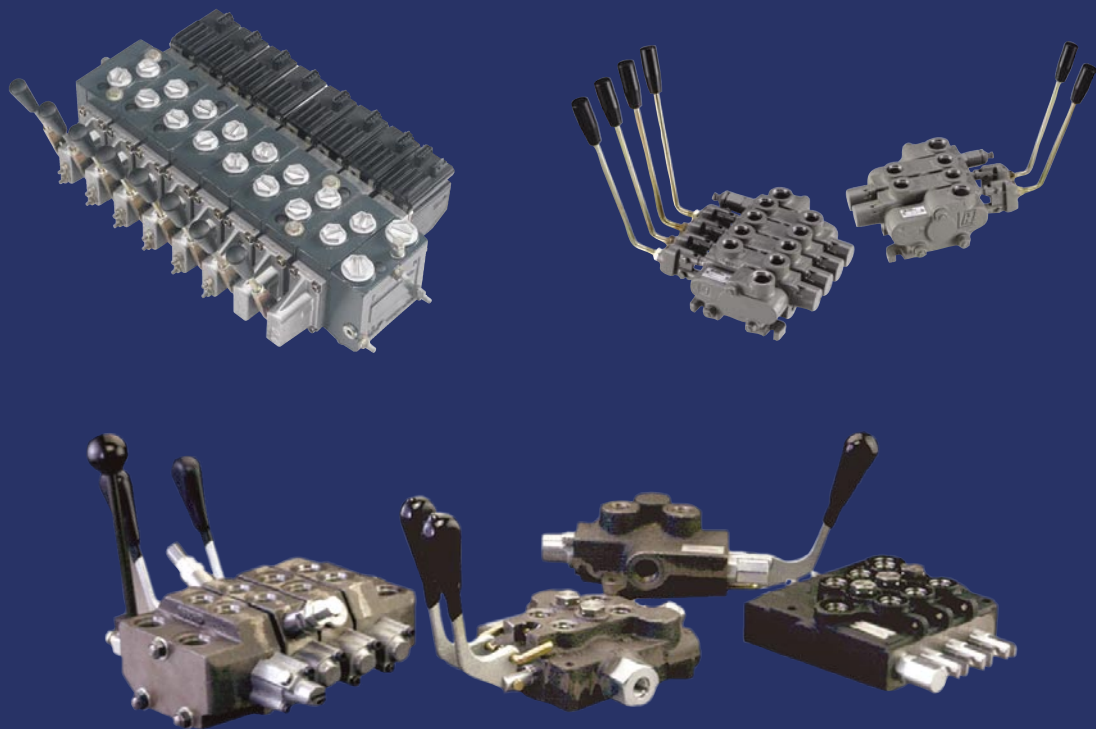


Directional control valves

Selection and flexibility for every application



**SAUER
DANFOSS**

What really matters is inside

Valves

Applications

PVG - proportional load sensing modular valve system



- Emergency vehicles
 - Utility mowers
 - Digger derricks
 - Ag sprayers
 - Backhoe loaders
 - Truck-mounted cranes
 - Combines
 - Forklift trucks
 - Aerial lifts
 - Forestry harvesters
 - Ag tractors
 - Telehandlers
-

CDS - modular directional control valve solutions



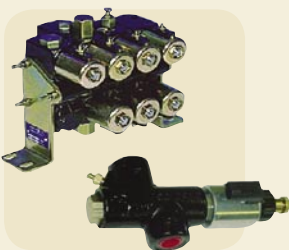
- Backhoe loaders
 - Combines
 - Ag tractors
 - Truck-mounted cranes
 - Aerial lifts
 - Ag sprayers
 - Ag implement applications
 - Refuse trucks
 - Car transporters
 - Trenching and boring equipment
 - Pavers
-

Monoblock - compact directional control valve solutions



- Forklift trucks
 - Aerial lifts
 - Sweepers
 - Trenchers
 - 3-point hitch
 - Car haulers
 - Mini-excavators
 - Skid-steer loaders
 - Small backhoes
 - Ag and garden tractors
 - Golf course mowers
 - Tree removal equipment
-

EHV Specialty - electro-hydraulic directional control valve solutions



- Combines
- Chisel plows
- Pavers
- Ag implements
- Street sweepers
- Flight simulators
- Excavators

Valves

Quick selection matrix

High flow modular valves

l/min [US gal/min]

Valve Series	40 [11]	80 [21]	120 [32]	160 [42]	200 [53]	240 [63]	Number of Sections	Circuit
PVG 120					180 [48]		1 to 8	Parallel

Modular valves

l/min [US gal/min]

Valve Series	20 [5]	40 [11]	60 [16]	80 [26]	100 [26]	120 [32]	Number of Sections	Circuit
PVG 32						100 [26.4]	1 to 10	Parallel
CDS 100						100 [26.4]	1 to 12	Series/Parallel Tandem
CDS 60			60 [16]				1 to 12	Series/Parallel Tandem
1681			57 [15]				1 to 7	Parallel
1125		38 [10]					1 to 8	Parallel

Monoblock valves

l/min [US gal/min]

Valve Series	20 [5]	40 [11]	60 [16]	80 [26]	100 [26]	120 [32]	Number of Spools	Circuit
1421					95 [25]		1	Tandem
1025				78 [21]			1	Tandem
1225				78 [21]			2	Tandem
1612				78 [21]			1	Tandem
1622			64 [17]				2	Series
1632			64 [17]				3	Series
1617		38 [10]					1	Parallel
1627		38 [10]					2	Parallel
1637		38 [10]					3	Parallel
1618		38 [10]					1	Parallel
1638		38 [10]					3	Parallel
1635		26 [7]					3	Tandem
1500		26 [7]					1	Tandem
1530		23 [6]					1	Tandem



Indicates maximum working pressure rated at 350 bar [5000 psi]



Indicates maximum working pressure rated at 240 bar [3500 psi]



Indicates maximum working pressure rated at 210 bar [3000 psi]

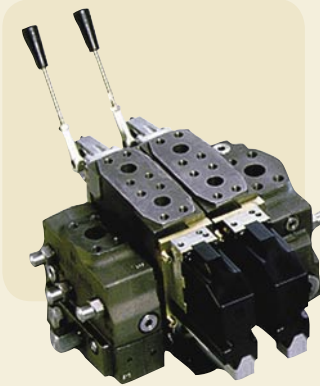


Indicates maximum working pressure rated at 104 bar [1500 psi]

Modular valve solutions

Features

PVG 120



- 350 bar [5075 psi] 180 l/min [48 US gal/min] (pressure compensated)
- 240 l/min [63 US gal/min] max. non pressure compensated work flow
- 40 bar [580 psi] max. tank pressure
- 1 to 8 work sections per valve group
- Parallel / load independent flow control circuit
- SAE / BSP thread and flange porting
- Interface for PVG 32
- Spools — field replaceable / balanced and imbalanced flow control
- Work port relief / anti-cav. / pressure limiting
- Multi voltage 11-32VDC on-off / proportional pilot operator
- Electronic controls — joysticks / flow / CAN-bus
- Hydraulic operator
- Internal pressure reducer for hydraulic operator pilot

PVG 32



- 350 bar [5075 psi] 100 l/min [26 US gal/min] (pressure compensated)
- 128 l/min [34 US gal/min] max. non pressure compensated work flow
- 40 bar [580 psi] max. tank pressure
- 1 to 10 work sections per valve group
- Parallel / load independent flow control circuit
- SAE / BSP thread porting
- Mid-inlet flow to 227 l/min [60 US gal/min]
- Spools — field replaceable / balanced and imbalanced flow control
- Float position options
- Work port relief / anti-cav. / independent A/B pressure limiting
- Multi voltage 11-32VDC on-off / proportional pilot operator
- Electronic controls — joysticks / flow / CAN-bus
- Hydraulic operator
- Internal pressure reducer for hydraulic operator pilot

CDS 60

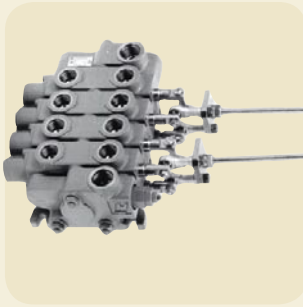


- 210 bar [3000 psi] 60 l/min [15 US gal/min]
- 40 bar [580 psi] max. tank pressure
- 1 to 12 work sections per valve group
- Parallel / tandem / series metered circuits
- SAE / BSP / Metric thread porting
- Priority flow control inlet
- Mid-inlet
- Float position options
- Work port relief / anti-cav. / metering / load-holding
- 12/24VDC on-off solenoid pilot operator
- Mechanical joystick operator
- Remote lever and cable operator
- Hydraulic / pneumatic operator
- Power beyond / pressure bypass

Modular and specialty valves

Features

CDS 100



- 210 bar [3000 psi] 100 l/min [25 US gal/min]
- 40 bar [580 psi] max. tank pressure
- 1 to 12 work sections per valve group
- Parallel / tandem
- SAE / BSP / Metric thread porting
- Priority flow control inlet
- Mid-inlet
- Float position options
- Work port relief / anti-cav. / metering / load-holding
- 12/24 VDC on-off solenoid pilot operator
- Mechanical joystick operator
- Remote lever and cable operator
- Hydraulic / pneumatic operator
- Power beyond / pressure bypass

1681



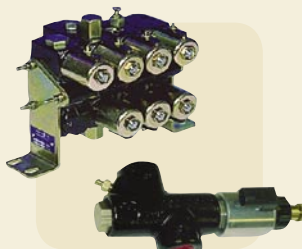
- 207 bar [3000 psi] 57 l/min [15 US gal/min] mono / modular design
- 70 bar [1000 psi] max. tank pressure
- Work port leakage less than 10.0 cm³/min [0.61 in³/min]
- 1 to 7 work sections per valve group
- Parallel metered circuit
- Priority #1 spool / float optional
- Work port relief / anti-cav. / metering / load-holding
- Mechanical joystick operator
- Power beyond

1125



- 207 bar [3000 psi] 38 l/min [10 US gal/min] mono / modular design
- 70 bar [1000 psi] max. tank pressure
- 1 to 8 work sections per valve group
- Parallel metered circuit
- Clevis spool end
- Priority #1 spool / float optional
- Work port relief / anti-cav. / metering / load-holding
- Mechanical joystick operator
- Power beyond convertible

EHV Specialty Valves



Solenoid operated modular directional control valve

- 207 bar [3000 psi] 38 l/min [10 US gal/min]
- 1 to 8 work sections per valve group
- Parallel circuit
- Work port relief / anti-cav. / metering / load-holding
- 12/24 VDC on-off solenoid pilot operator
- Power beyond convertible

Bi-directional proportional flow control valve

- 138 bar [2000 psi] 38 l/min [10 US gal/min] max. (less than 5% hysteresis)
- Manual override
- 12/24 VDC max. current is 2.2/1.1 amps
- Low pressure drop — smooth transition between low flow and high flow
- Applications: Bi-directional motor / cylinder flow control

Monoblock valves

Features

1421



- 207 bar [3000 psi] 95 l/min [25 US gal/min]
- 70 bar [1000 psi] max. tank pressure
- Single spool cast-iron monoblock
- Tandem metered circuit
- Clevis spool end
- Float detent optional
- Main relief
- Power beyond

1025 and 1225



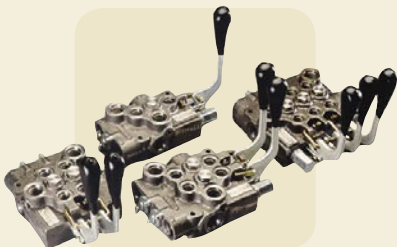
- 207 bar [3000 psi] 76 l/min [20 US gal/min]
- 70 bar [1000 psi] max. tank pressure
- Single or double spool cast-iron monoblock
- Tandem metered circuit
- Clevis spool end
- Float detent optional
- Main relief
- Power beyond convertible

1612, 1622, and 1632



- 207 bar [3000 psi] 76 l/min [20 US gal/min] (1612 only)
- 64 l/min [17 US gal/min] max. flow for 1622 / 1632
- Work port leakage less than 10.0 cm³/min [0.61 in³/min]
- 70 bar [1000 psi] max. tank pressure
- Single, double, or triple spool cast-iron monoblock
- Tandem metered circuit (1612 only)
- Series metered circuit (1622 / 1632 only)
- Clevis spool end
- Float detent optional
- Regenerative circuit option available for 1622 / 1632
- Work port relief
- Main relief
- Power beyond convertible

1617, 1627, and 1637

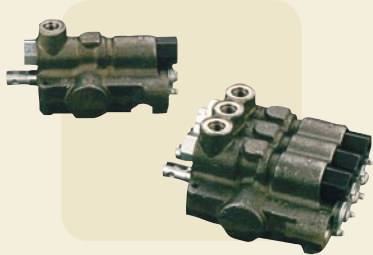


- 207 bar [3000 psi] 38 l/min [10 US gal/min]
- Work port leakage less than 13 cm³/min [0.79 in³/min]
- 70 bar [1000 psi] max. tank pressure
- Single, double, or triple spool cast-iron monoblock
- All porting options machined and plugged
- Parallel metered circuit
- Clevis spool end
- Float detent optional
- Main relief
- Power beyond convertible
- Mechanical joystick operator

Monoblock valves

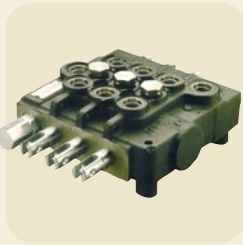
Features

1618 and 1638



- 207 bar [3000 psi] 38 l/min [10 US gal/min]
 - Work port leakage less than 1 cm³/min [0.061 in³/min]
 - 70 bar [1000 psi] max. tank pressure
 - Single or triple spool cast-iron monoblock
 - Parallel metered circuit
 - Clevis spool end
 - Float detent optional
 - Main relief
 - Power beyond convertible
 - Mechanical joystick operator
-

1635



- 207 bar [3000 psi] 26 l/min [7 US gal/min]
 - Work port leakage less than 10.0 cm³/min [0.61 in³/min]
 - 70 bar [1000 psi] max. tank pressure
 - Triple spool cast-iron monoblock
 - Tandem metered circuit
 - Clevis spool end
 - Float detent optional
 - Main relief
 - Power beyond convertible
 - Mechanical joystick operator
-

1500



- 138 bar [2000 psi] 26 l/min [7 US gal/min]
 - Work port leakage less than 6 cm³/min [0.36 in³/min]
 - 70 bar [1000 psi] max. tank pressure
 - Single spool cast-iron monoblock
 - Tandem metered circuit
 - Clevis spool end
 - Main relief
 - Power beyond convertible
-

1530



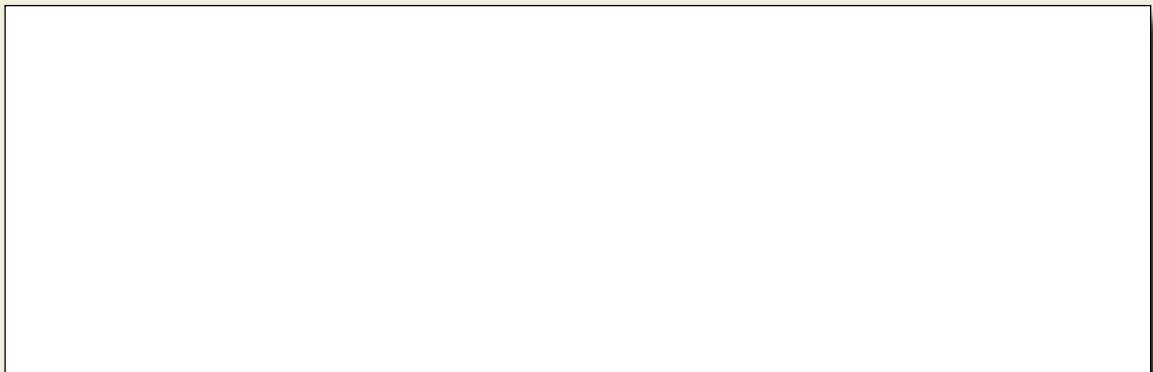
- 103 bar [1500 psi] 23 l/min [6 US gal/min]
- Work port leakage less than 3 cm³/min [0.18 in³/min]
- 14 bar [200 psi] max. tank pressure
- Single spool cast-iron monoblock
- Tandem metered circuit
- Clevis spool end

Sauer-Danfoss is a comprehensive supplier providing complete systems to the global mobile market. We offer our customers optimum solutions for their needs and develop new products and systems in close cooperation and partnership with them. Sauer-Danfoss specializes in integrating a full range of system components to provide vehicle designers with the most advanced total system design.

- Hydrostatic transmissions
- Hydraulic power steering
- Electric power steering
- Electrohydraulic power steering
- Closed and open circuit axial piston pumps and motors
- Gear pumps and motors
- Bent axis motors
- Orbital motors
- Transit mixer drives
- Planetary compact gears
- Proportional valves
- Directional spool valves
- Cartridge valves
- Hydraulic integrated circuits
- Hydrostatic transaxles
- Integrated systems
- Fan drive systems
- Electrohydraulics
- Microcontrollers and software
- Electric motors and inverters
- Joysticks and control handles
- Displays
- Sensors

Sauer-Danfoss provides comprehensive service for its products through an extensive network of Authorized Service Centers strategically located in all parts of the world.

Please contact the Sauer-Danfoss representative nearest you



© 2003 Sauer-Danfoss. All rights reserved. Printed in U.S.A.
Sauer-Danfoss accepts no responsibility for possible errors in catalogs, brochures and other printed material. Sauer-Danfoss reserves the right to alter its products without prior notice. This also applies to products already ordered provided that such alterations can be made without affecting agreed specifications. All trademarks in this material are properties of their respective owners. Sauer-Danfoss and the Sauer-Danfoss logotype are trademarks of the Sauer-Danfoss Group.



What really matters is inside