

PVG proportional valves:

Reliable, flexible, and promptly delivered



SAUER
DANFOSS

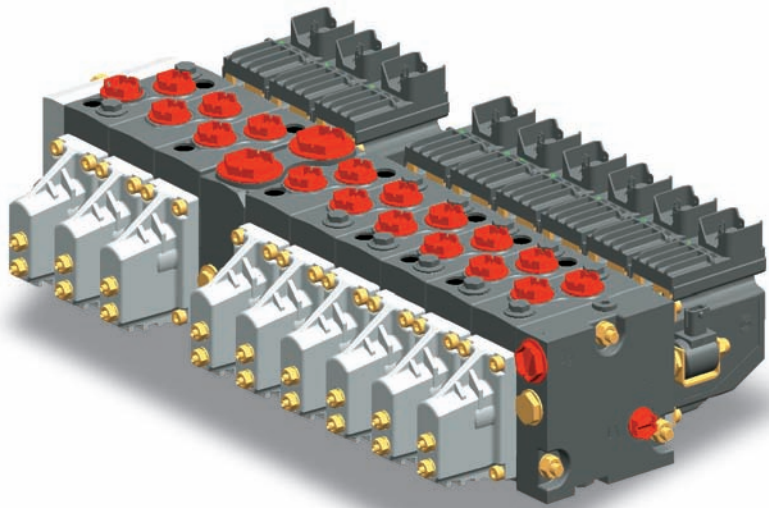
What really matters is inside®

PVG valves get the job done

Reliable, flexible, and promptly delivered. That is how we best describe our range of hydraulic load sensing valves. Our portfolio includes load sensing, electrically controlled load independent proportional valves as well as directional control valves. Modular in concept, they can be designed to meet practically any need.

If you need to lift or dig with maximum control, the question is not whether our PVGs will do the job, rather which configuration will meet your needs. The possibilities are practically endless. Contact us. We will help you find the right solution for your vehicle application and we will do it fast.





Reliable

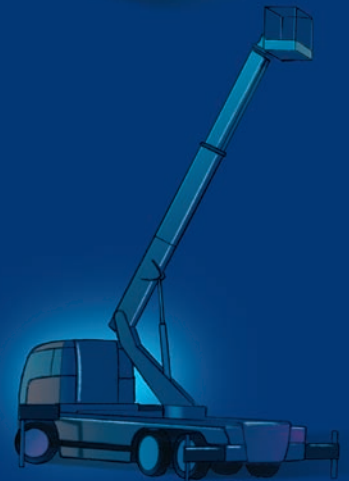
Our PVG valves provide smooth machine control, day in and day out. They are built to last. And – due to the PVG load-sensing principle – wear and tear on the other components in your machine system will be reduced. For decades, our high-quality valves have been adding value to vehicle applications around the world.

Flexible

The modular design of our PVGs accommodates future control variations and gives you an almost infinite number of configurations. They can also be used in combination with our range of HIC hybrid solutions and Series 45 open-circuit pumps. Our experienced experts will help you make the right decision based on your specific application needs.

Promptly delivered

If you choose a PVG solution, you can rely on quick product delivery. We make and deliver almost any PVG configuration – and there are thousands – in a matter of days. Our worldwide network of sales companies, distributors, and authorized servicecenters is ready with after-sales support and product service when you need it. Rely on it.

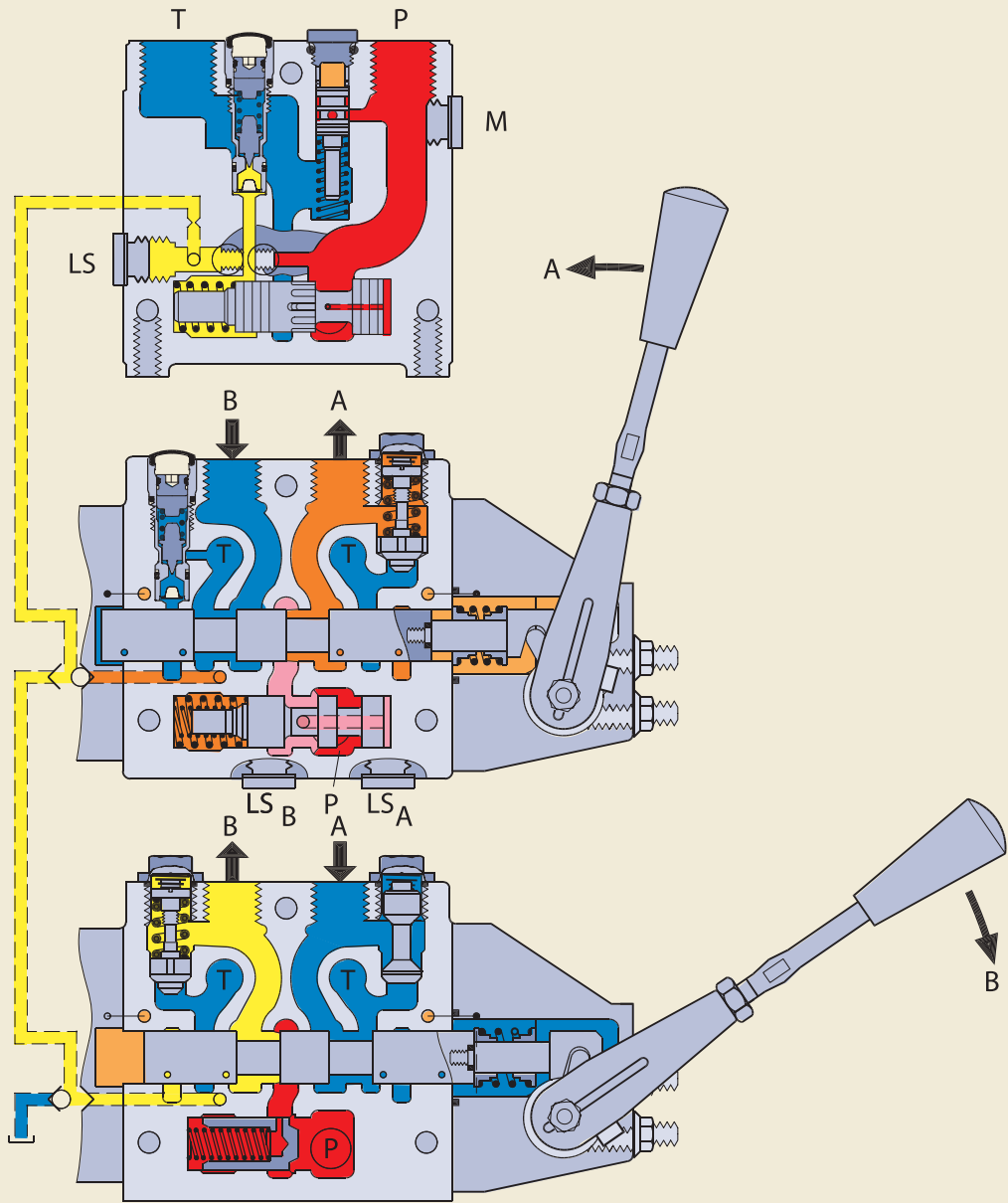


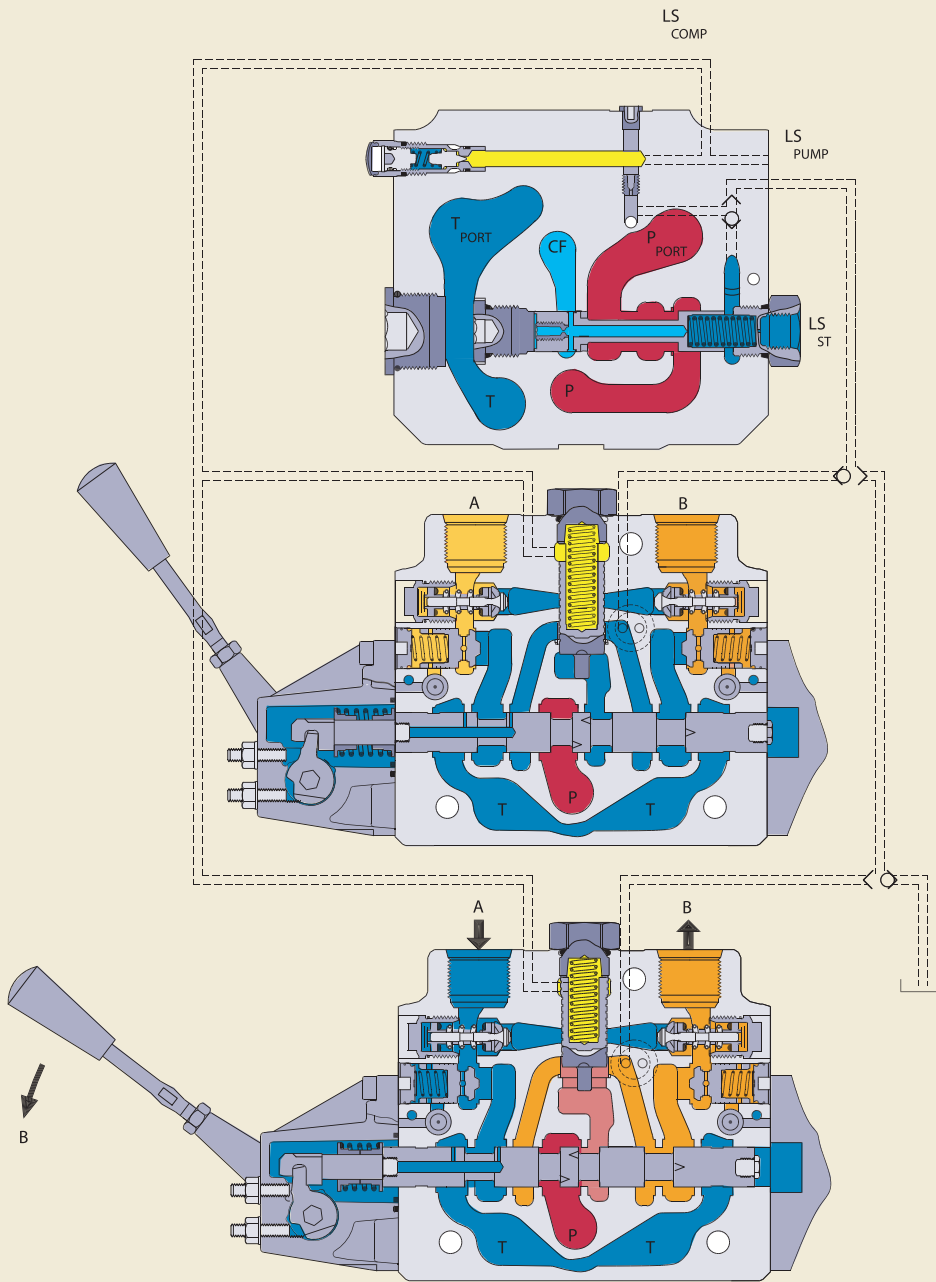
PVG 32

Load independent proportional valve for applications with flow up to 130 l/min [34.4 gal/min] and pressure up to 350 bar [5076 psi].

General PVG 32 characteristics:

- Load independent flow control for smooth operation and improved productivity.
- Load-sensing technology for higher efficiency, safety, reduced energy consumption, and longer system life.
- Configurable as advanced electrically controlled proportional valve as well as load sensing directional control valve.
- Modular design providing a wide range of configuration possibilities.
- Up to twelve basic sections per valve group. Maximum flow per section: 130 l/min [34.3 gal/min].
- Can be configured in combination with our range of HIC hybrid modules and/or PVG 100 for maximum flexibility.
- Mechanical, hydraulic, and electrical actuation options.





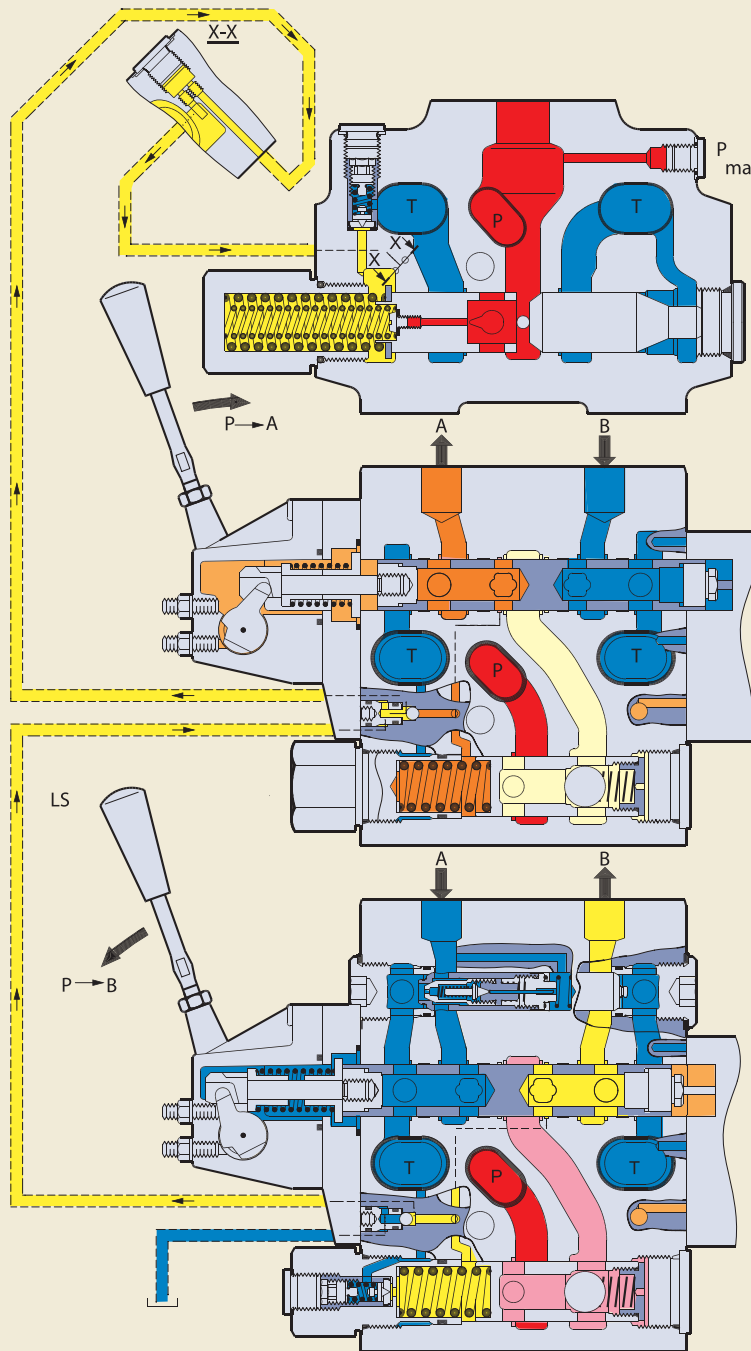
PVG 100

Load independent proportional valve with flow up to 180 l/min [48 gpm] and pressures up to 350 bar [5076 psi].

General PVG 100 characteristics:

- Flow sharing for maximum controllability and safety.
- Load-independent flow control for smooth operation and improved productivity.
- Load-sensing technology for higher efficiency, safety, reduced energy consumption, and longer system lifetime.
- Configurable as advanced electrically controlled proportional valve as well as load sensing directional control valve.
- Modular design providing a wide range of configuration possibilities.
- Up to eight different sections per valve group. Maximum flow per section: 180 l/min [48 gpm].
- Can be configured in combination with our range of HIC hybrid modules and/or PVG 32 for maximum flexibility.
- Mechanical, hydraulic, and electrical actuation options.

RELIABILITY · OPENNESS



PVG 120

Load independent proportional valve for applications with flow up to 240 l/min [63.4 gal/min] and pressure up to 400 bar [5800 psi].

General PVG 120 characteristics:

- Load independent flow control for smooth operation and improved productivity.
- Load-sensing technology for higher efficiency, safety, reduced energy consumption, and longer system life.
- Can be used as directional and flow control valve.
- Modular design providing a wide range of configuration possibilities.
- Up to eight basic sections per valve group. Maximum flow per section: 240 l/min [63.4 gal/min].
- Mechanical, hydraulic, and electrical actuation options.

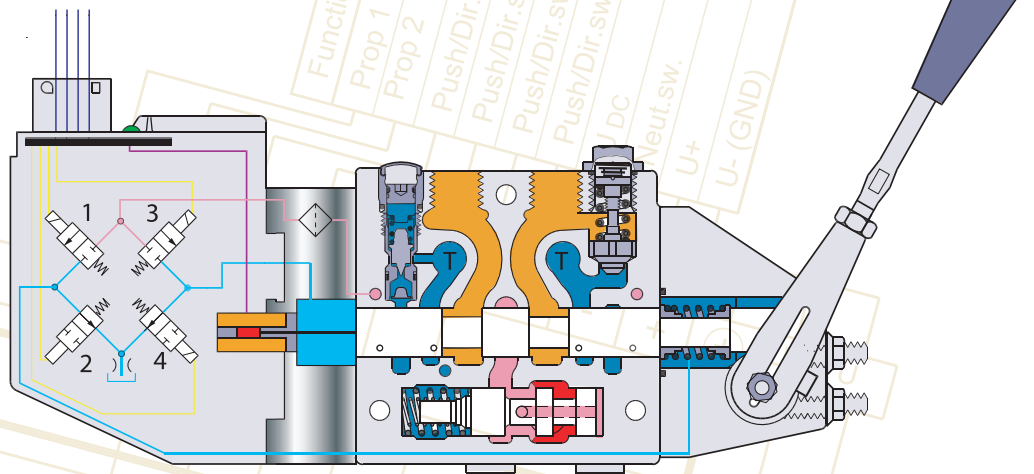
T · RELIABILITY · OPENNESS

PVE actuators: Valve control made easy

Sauer-Danfoss is at the forefront when it comes to the design, manufacture, and application of valve solutions with various electronic control possibilities. We introduced the market's first electrical actuators more than three decades ago and our portfolio now includes more than 50 different PVE versions. We have the experience and flexibility to meet any need. Our electrical actuators make valve control easy.

General PVE characteristics:

- Compensates for system induced flow forces.
- Can withstand ambient temperatures from -30°C to $+60^{\circ}\text{C}$ [-22°F to $+140^{\circ}\text{F}$] and oil temperatures from -30°C to $+90^{\circ}\text{C}$ [-22°F to 194°F].
- Immune to supply voltage variations.
- ISOBUS compliant digital control.
- IP 65 and 66 rated.
- Fault monitoring that supervises valve operation.
- Full plug and perform capability.
- Available with a wide range of different connectors.



PVED: Advanced Digital Control

The Sauer-Danfoss line of high-performance PVE actuators has been extended with PVED-CC; an advanced digital version. Apart from analogue position control circuits, the PVED-CC contains a digital circuit that allows for flow control via CAN communication. The result is leading-edge digital control with diagnostic functions and a very high safety level.

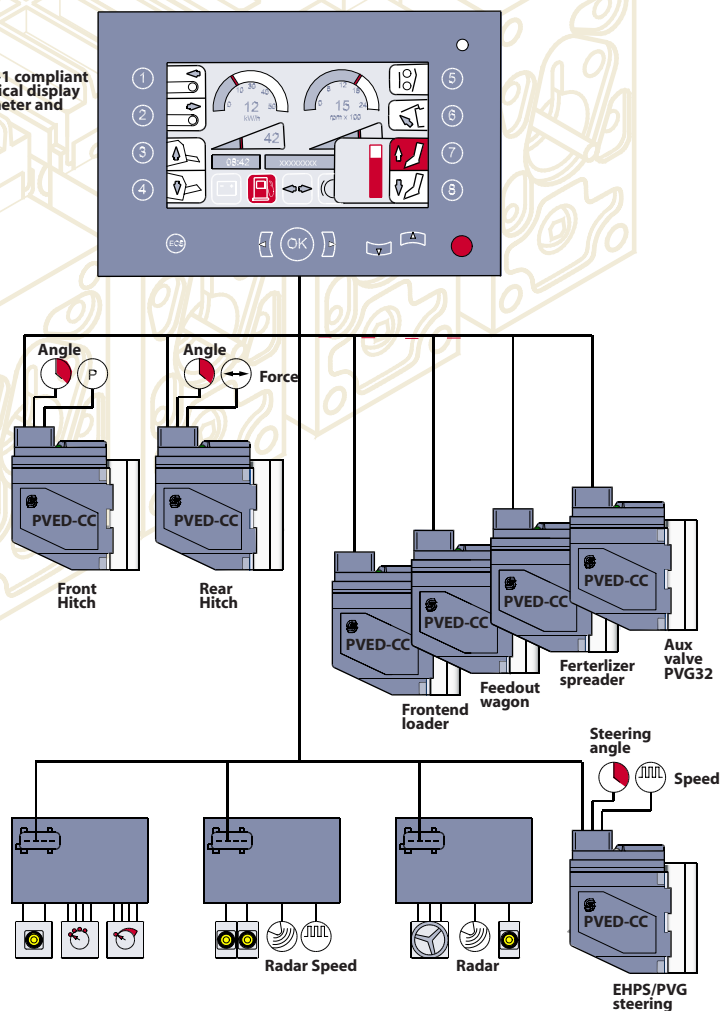
The ISOBUS ISO 11783 compliant PVED-CC is available for off-highway machinery in agriculture, construction, road building, materials handling, forestry, and turf care.

General PVED characteristics:

- ISOBUS CAN control.
- Flow control.
- Ramp up/down on flow.
- Scaling of flow set-point.
- User selectable, progressive flow characteristics.
- Advanced built-in diagnostic functions.
- Environmental robustness identical to analog PVE.

ISOBUS CAN control with PVED-CC

PLUS+1 compliant graphical display parameter and set-up



Hybrid solutions: Maximum flexibility for vehicle designers and end-users

Combining PVG valve technology with Hydraulic Integrated Circuits (HICs), Sauer-Danfoss is able to provide hybrid solutions that make life easier for vehicle designers and end-users alike. The use of HICs substantially reduces the number of necessary external connections. Due to their minimal installation time, compact size, and weight, they improve overall system performance and simplify maintenance. Taking the best of both technologies, we develop, manufacture, assemble, and test hybrid solutions for our customers to minimize the total system cost and maximize quality.

Hybrid solutions – general characteristics

- Assembled and thoroughly tested custom-designed solutions.
- Fewer hoses and fittings.
- Low and high flow functions in the same valve group.
- Anodized aluminum parts.
- Maximum design flexibility.
- Increased system performance.
- Reduced number of leak points.



PVG valves – part of tomorrow's machine control network

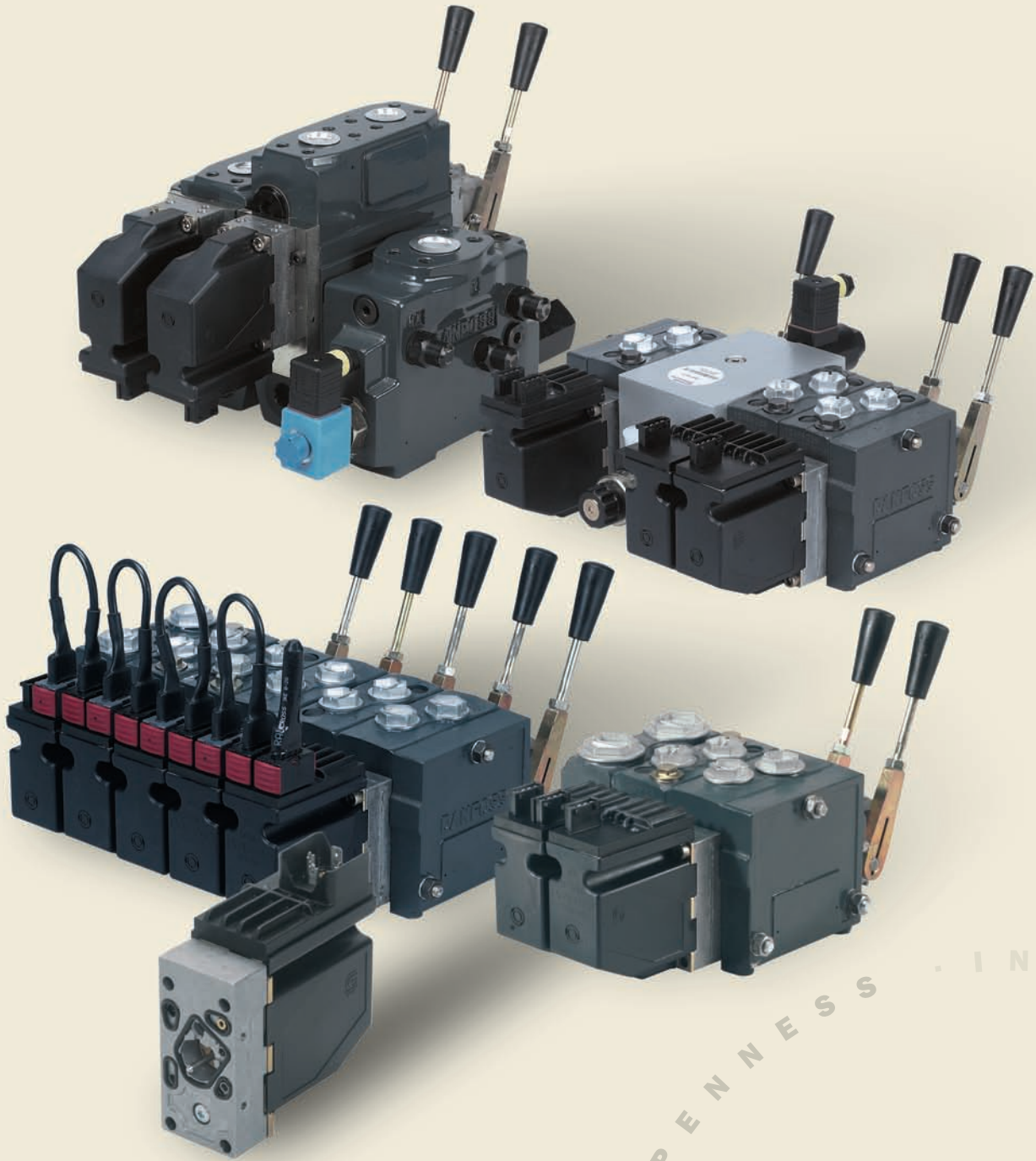
PLUS+1™ – a new Sauer-Danfoss operating system network – allows you to rapidly develop and customize electronic machine control. The system combines machine controls and electronic diagnostics in an integrated operating network that connects the interactive control of pumps, motors, joysticks,

inverters, sensors, and, of course, PVG valves.

Introduced at the 2004 Bauma trade show, PLUS+1™ gives you the ability to easily add one capability after another to develop your own machine control network. It allows for custom configuration and precise tuning of work and

propel functions such as speed, position and pressure control, engine anti-stall, and automated propel control. PLUS+1™ puts the power to develop specialized solutions in your hands. It is the machine control network of tomorrow. And Sauer-Danfoss PVG valve technology is part of it.





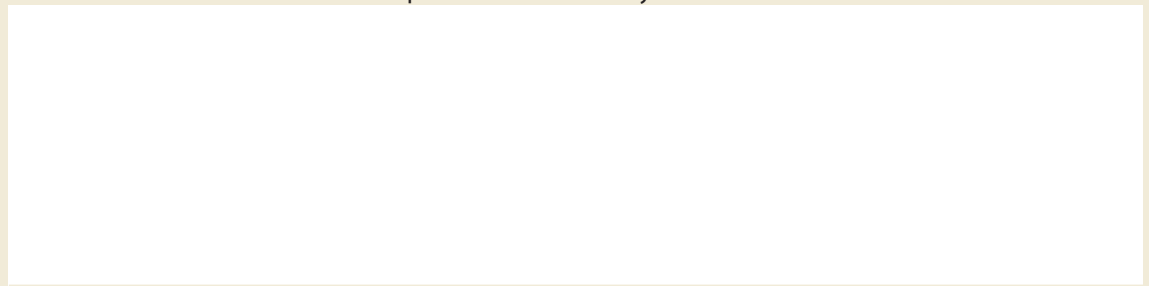
L I T Y . O P E N N E S S . I N N O V A T I O N

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 worldwide service for its products through an extensive network of Global Service Partners strategically located in all parts of the world.

Please contact the Sauer-Danfoss representative nearest you.



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