

AGRICULTURE

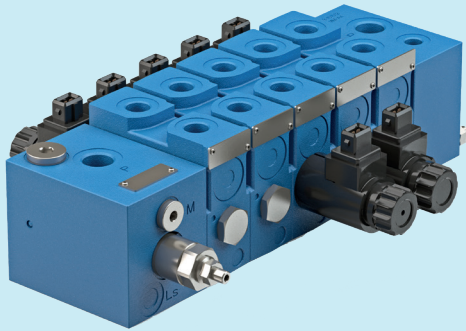
Compact Hydraulics solutions



The right solution for every application.

Compact hydraulics products for Agricultural machines: designed to improve functions performances.

COMPACT DIRECTIONAL VALVES
EDG load sensing directional flow
control block pre-compensated



Technical data

- ▶ Max. flow: 40 l/min. (@ 6 bar) (direct actuation)
- ▶ Max. working pressure: 350 bar
- ▶ Compensation: Precompensated or without compensation
- ▶ Antishock non settable pressure relief on A and/or B ports: Integrated in the valve housing
- ▶ Double PO check or counterbalance valve module (Forklift version): Integrated in the valve housing

Working principle

This new load-sensing (LS) directional valve is pressure compensated in each section. The EDG precompensated valve can be combined with fixed or variable displacement pump for Open or Closed Center Systems.

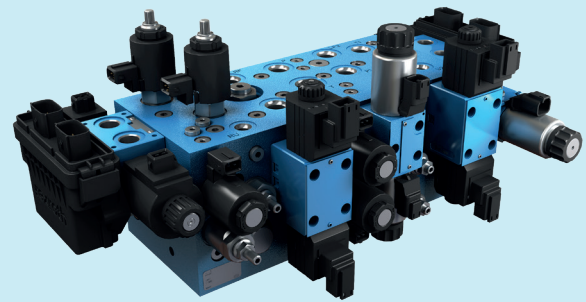
Customer benefits:

- ▶ Compliant with CDV concept of modularity
- ▶ Highly configurable and compact/low weight solution regardless working pressure. Auxiliary valve integrated in the housing for direct acting
- ▶ Integrated counterbalance valves

Target application: Agricultural Machines

Data sheet: [RE18301-19](#) - [RE18301-21](#) - [RE18300-16](#)
[RE18301-65](#) - [RE18300-30](#)

HYDRAULIC INTEGRATED CIRCUITS
Multifunction Block with OBE and EDG
spool sensor



Technical data

- ▶ Max. flow: 50 l/min
- ▶ Max. pressure: 210 bar
- ▶ CANbus control

Characteristics

Sequence logics available to avoid incorrect movement
Blocks already cabled to reduce cost and time to market.
The block with new on board electronics is designed to simplified integration into customer machine. CANbus communication is designed to reduce wiring and machine complexity.

Software allows to reduce valve hysteresis and with Rexroth "Spool Position Monitor" it is possible cancel hysteresis, using a close loop circuit.

CHC control is designed to work with all Compact Hydraulics valves.

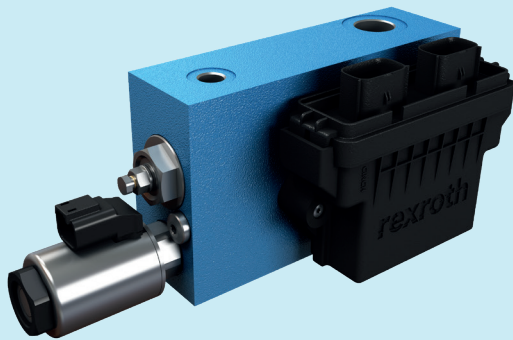
Target application: Agricultural Machines

For data sheet contact factory:

compact-hydraulics-hic@boschrexroth.com

COMPACT MOTION CONTROL

E-motion Plus valve Electronic compensation for boom control with OBE



Technical data

- ▶ Max. flow: 150 l/min
- ▶ Max. inlet pressure: 350 bar
- ▶ CANbus control

Main Features

The new E-motion Plus for boom control, thanks to its electronic control and setup, offers a very fine movement controllability and adaptation to all machines. The electronic control of the valve makes it possible to achieve optimized movements control, electronic pressure compensation and simple adaptation to all machines with improved performance that have not until now been possible with standard products. The valve can be equipped with Rexroth pressure sensors located upstream and downstream the main control stage to perform the electronic control and compensation.

Customer benefits/Features

- ▶ Metering and lowering speed control optimization via software
- ▶ Electronic pressure compensation with profile adaptation
- ▶ Calibration via software tuning
- ▶ Compact and flexible solution
- ▶ Lower pressure drop: less fuel consumption
- ▶ Simplified installation - no hydraulic pilot piping
- ▶ Fine control
- ▶ Reduced hysteresis
- ▶ Reduced overshoot in relief function
- ▶ Electronic control and compensation available via pressure sensors
- ▶ Oil recovery function (optional)
- ▶ CANbus control on demand
- ▶ Sequency logics available to avoid incorrect movement
- ▶ The valve already cabled to reduce cost and time to market

Target application: Telehandlers

For data sheet contact factory:

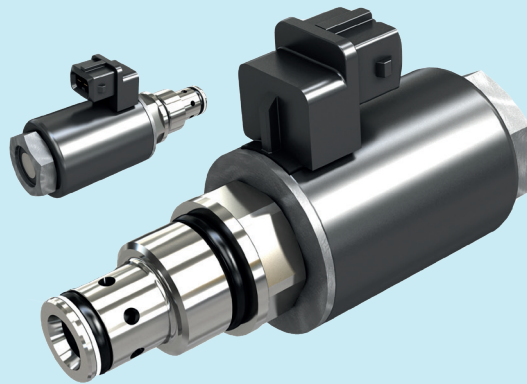
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Five product lines from a single source.

Meet all of your customer needs: high performances, comfort and reliability.

CARTRIDGE VALVES

Proportional flow control poppet type valves



Technical data

- ▶ Nominal flow:
 - VPR-P40 Size 08: 40 l/min
 - KSVS.1 Size 10: 50 l/min at 14 bar delta P
 - KSVS.2 Size 12: 85 l/min at 14 bar delta P
 - KSVS.3 Size 16: 100 l/min at 14 bar delta P
- ▶ Max op. pressure VPR-P40 Size 08: 250 bar
- ▶ Max op. pressure KSVS.1-2-3 Size 10, 12 and 16: 350 bar
- ▶ Cavity:
 - VPR-P40 Size 08: CA-08 A-2N
 - KSVS.1 Size 10: CA-10 A-2N
 - KSVS.2 Size 12: CA-12 A-2N
 - KSVS.3 Size 16: CA-16 A-2N

Characteristics

- ▶ New range of pilot operated poppet type 2 way / 2 positions directional proportional valves (flow regulator)
- ▶ Available in size 8 – 10 – 12 - 16
- ▶ “Leakfree” (10 drops/min leakage)
- ▶ Size 08: ambient temperature range-30 to 60 °C
- ▶ Size 10, 12, 16: ambient temperature range-20 to 120 °C
- ▶ Size 10, 12, 16: up to 720 hour salt spray test DIN50021

Customer benefits

- ▶ Individually adjusted to achieve highly repeatable initial opening current
- ▶ Low delta P
- ▶ Low hysteresis
- ▶ Dual mode characteristic curve (Fine metering up to 80 % of the control current followed by a boost function)

Target application: Agricultural Machines

Data sheet: [RE18323-78](#) - [RE18323-73](#) - [RE18323-74](#)
[RE18323-75](#)

CARTRIDGE VALVES

Proportional Pressure Reducing Valve DRE5



Technical data

- ▶ Flow: 30 l/min*
- ▶ Max. inlet pressure: 50 bar @ $\Delta P = 7$ bar
- ▶ Regulated pressure: 18-30 bar

Customer benefits/Features

- ▶ High efficiency due to the low leakage
- ▶ Low pressure drop
- ▶ Compact design
- ▶ Excellent controllability
- ▶ Quick response time
- ▶ Low hysteresis
- ▶ Filter integrated
- ▶ Direct operated
- ▶ Self-air bleeding valve design

Target application: Agricultural Machines

Data sheet: DRE05FK [RE64660](#) - DRE05SK [RE64659](#)

HYDRAULIC INTEGRATED CIRCUITS

HIC PTO clutch control



Technical data

- ▶ Inlet flow rate: 100 l/min
- ▶ Regulated pressure: 20, 25 and 30 bar
- ▶ Protection IP 69k

Characteristics

Multifunction HIC block for clutching and lubrication control.

- ▶ Proportional control: new low pressure reducing valves (DRE5 valves)
- ▶ ON-OFF control: New 3 way/2 position solenoid concept
- ▶ Low ΔP at maximal flow
- ▶ High response time
- ▶ Low hysteresis and high repeatability
- ▶ Adjustable flow and pressure setting

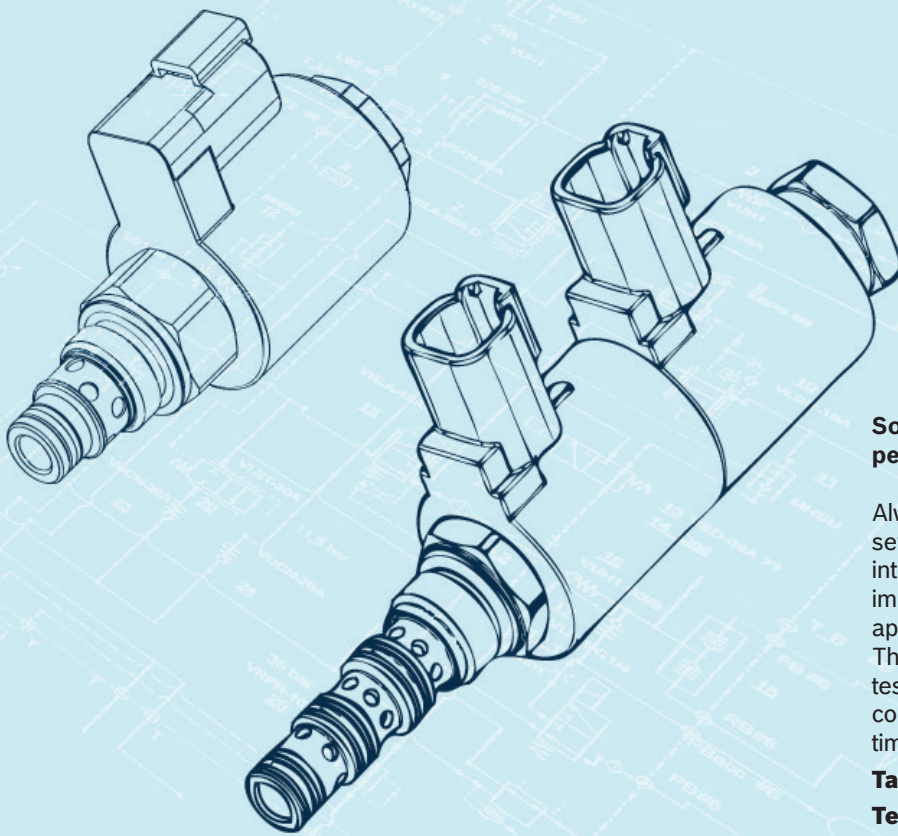
Target application: Agricultural Machines

For data sheet contact factory:

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NEW SOLENOID CONCEPT CARTRIDGE RANGE



Solenoid Concept: new generation of top performing solenoid cartridge valves.

Always focused on innovation and working in severe environmental conditions, they are perfectly interchangeable with the former ones and introduce improved features for a broader bandwidth of applications.

The new D36 coils exceed IP69K standard, are tested under harsh vibration and temperature cycle conditions, providing excellent long-term operating time.

Target application: Agricultural Machines

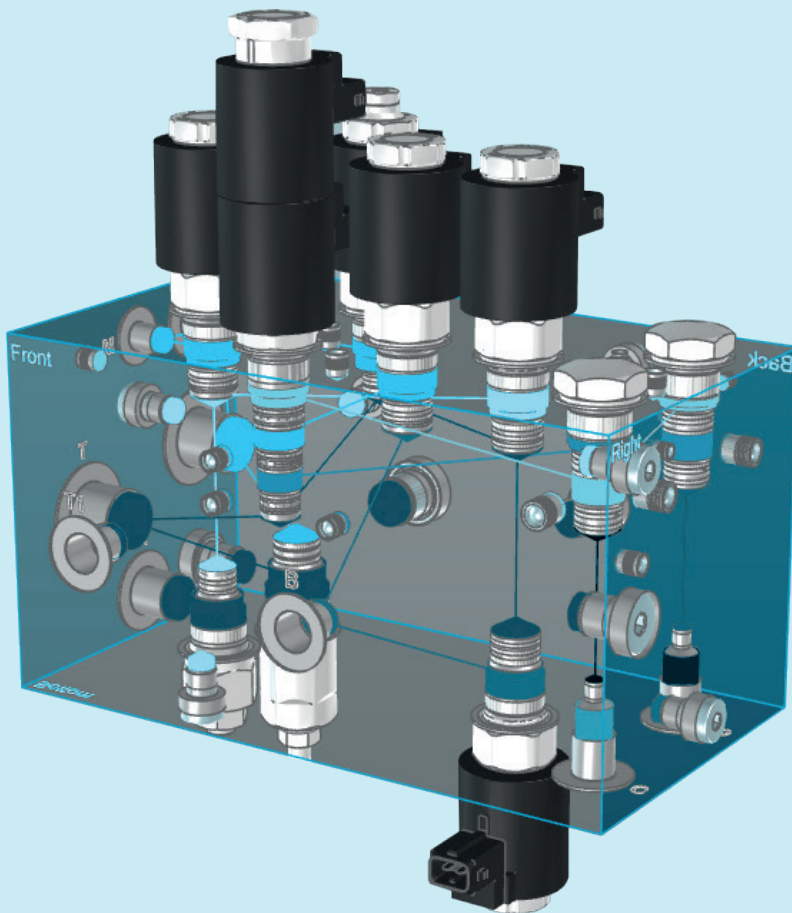
Technical sheet: [Solenoid Concept](#)

For data sheet contact factory:

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COMPACT HYDRAULICS CONFIGURATOR TOOL
Choose

CHOOSE



Compact Hydraulics configurator tool

- ▶ Software: www.boschrexroth.com/choose
- ▶ Product lines available:
 - HIC (Hydraulic Integrated Circuits),
 - CDV (Compact Directional Valves),
 - CPM (Compact Power Modules).
- ▶ Possibility to create hybrid blocks
- ▶ Easy configuration and 3D output
- ▶ Report with bill of material and technical drawing
- ▶ 3D file export

Download and key request:
www.boschrexroth.com/choose

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