

Flexibility and Superior Control

Directional Control Valve HDS16

Hydraulic solutions for agricultural and mobile applications

Innovation and fine metering controls

Introduction

Booker Hydraulics HDS15 directional valve series has been market leader in a wide range of hydraulic applications for more than 20 years thanks to its extreme flexibility, outstanding control performances and application oriented unique features.

HDS16 is a step forward in this successful experience taking advantage of the gained know-how and following the market trends: lower pressure drops, increased pressure rating, electro-hydraulic open loop controls internally piloted and with emergency lever and direct on-off controls increased performances.

Our customer can still rely on the outstanding features and flexibility they are accustomed to but can also look to the future configuration of the machines hydraulic circuits taking advantage of the innovative options made possible by the new product.

- High metering spool specifically designed for defined applications
- Manual joystick with integrated locking system
- Wide selection of spool controls to satisfy the requirements of several type of machines
- Electro-hydraulic proportional control internally fed with integrated manual lever
- Wide range of inlet and intermediate sections with flow control option
- PO check section manifold in combination with service port valves

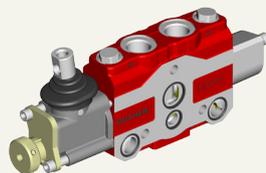
Technical Data

Nominal flow rate	60 l/min
Max. inlet pressure	290 bar
Work port A/B max peak pressure	320 bar
Max internal leakage A/B-> T*:	
Without port valves	14 cm ³ /min
With port valves:	19 cm ³ /min
Max contamination level	21/19/16 ISO4406:1999 (NAS 1638 class 10)
Max contamination level for electro-hydraulic and direct ON-OFF applications	20/18/15-ISO 4406:1999 (NAS 1638 class 9)
Fluid temperature (NBR seals)	-20 to +80 °C
Viscosity operating range:	
Recommended	15 - 75 mm ² /s (cSt)
Admissible	12 - 400 mm ² /s (cSt)
Max number of elements	10
Ambient temperature in operating conditions:	
mechanical/hydraulic/pneumatic controls	-30 to +60 °C
electric/electro-hydraulic devices	-30 to +50 °C
Port threads size (P/A/B)	1/2" BSP**
Port threads size (T)	3/4" BSP**

* at 100 bar/1400 PSI, 23 mm²/s - lower values on demand
 ** or equivalent



Manual control



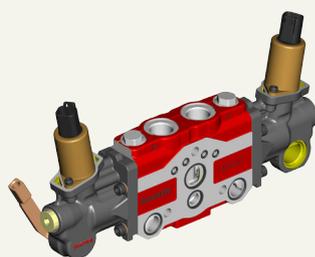
Manual with double single effect and locking control



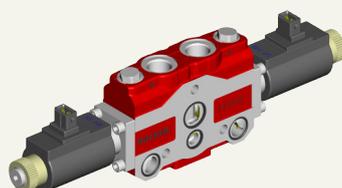
Standard hydraulic proportional



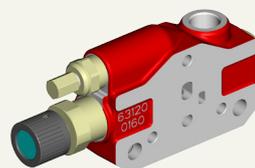
Hydraulic proportional floating position



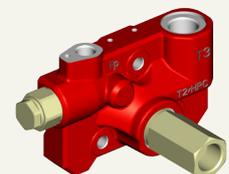
Electro-hydraulic open loop proportional (EHO)



Direct acting solenoids ON-OFF

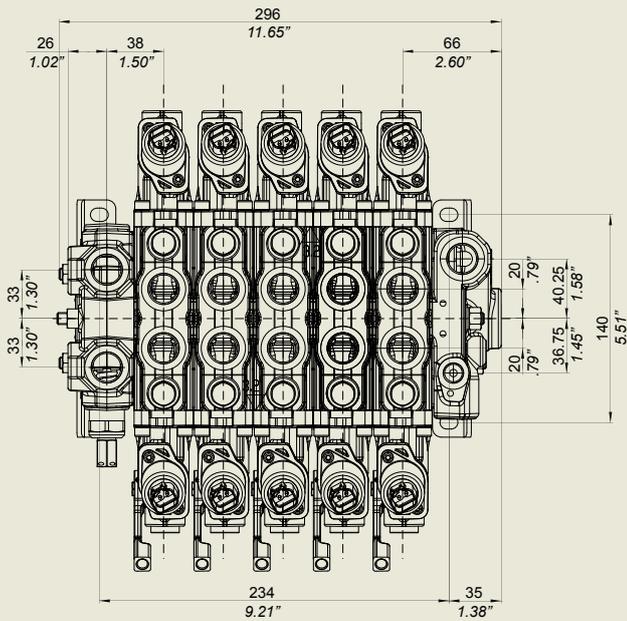
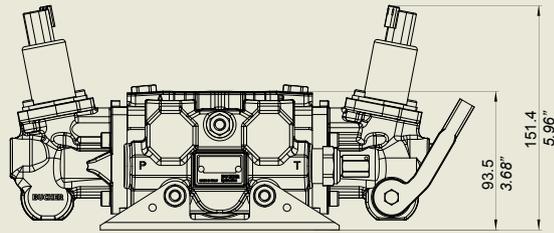
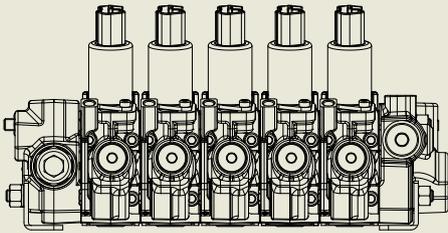


Pressure and flow control PQ



Back cover with integrated piloted supply pressure reducing valve

Dimensions and circuits



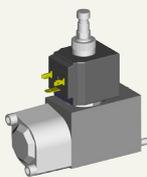
Standard spool type	Hydraulic schematic	Features
A		4 way - 3 position A/B closed
C		4 way - 3 position A/B to tank in neutral
D		4 way - 3 position B to tank in neutral
G		3 way - 3 position A closed
Z		4 way - 4 position 4th floating position

Several metering arrangements for each circuit available

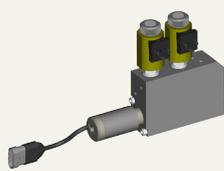
Options



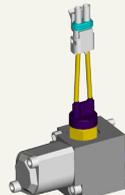
Proportional/ON-OFF spool position sensor



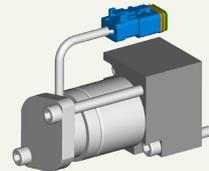
Electro-mechanical locking system



Electro-hydraulic open loop control (EHM)



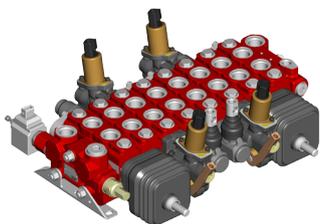
Microswitch positioner



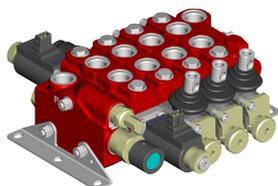
Electro-magnetic detent (EMD)

Areas of application

Forestry



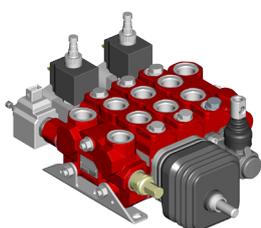
Tractors



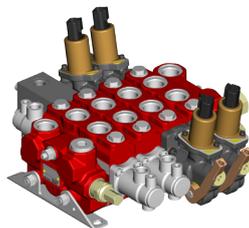
Truck Cranes



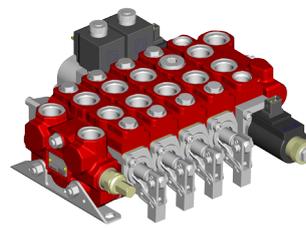
Compact Wheel Loaders



Telehandlers



Fork Lifts



Smart Solutions.
Superior Support.

For further information please do not hesitate to contact us.

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