Flow valve
Flow control valve

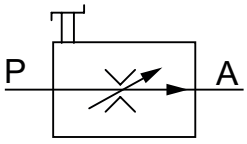
Q_{max} = 80 l/min, p_{max} = 315 bar
mechanical operation, load-compensated
Type series: SRCB-H-2

- Screw-in cartridge valve
- ZnNi plating (720h DIN EN ISO 9227 NSS)
- 2-way flow control valve
- Compact construction
- Flow rates are unaffected by changes in temperature and load

Description

The flow control valve, series SRCB-H-2 is a mechanical operated, load compensated screw-in valve with an M42x1,5 mounting thread. This valve is used to set the working speed of hydraulic actuators, the setting being load-independent. The special orifice design ensures that the flow setting is largely independent of the viscosity of the fluid. The cartridge design allows the valve to be installed in any customized control block. All external parts of the screw-in valve are zinc-nickel plated and are thus suitable for use in the harshest operating environments.

Symbol



Technical data

General characteristics	Description, value, unit
Function group	Flow valve
Function	Flow control valve
Design	Screw-in cartridge valve
Controls	mechanical operation
Characteristic	load-compensated
Transition/central position of spool/piston	closed orifice
MTTFd value	150 years
Thread size	M42×1,5
Mounting attitude	unrestricted
Tightening torque aluminium	50 Nm
Minimum ambient temperature	- 30 °C
Maximum ambient temperature	+ 50 °C
Surface protection	ZnNi plating (720h DIN EN ISO 9227 NSS)
Sealing material	FKM (fluorocarbon rubber / VITON) seals

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	315 bar
Maximum flow rate	80 l/min [1)]
Control flow range	10, 16, 25,32, 40, 50, 63, 80 l/min [1)]
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 20 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 300 mm^2/s (cSt)
Minimum fluid cleanliness (cleanlineless class according to ISO 4406:1999)	class 20/18/15
Min. pressure difference (pressure compensator)	7 bar
Control accuracy (as a % of the nominal flow)	Load-dependency when under pressure: max. ± 2.5 % [2)]
Internal leakage flow rate	max. 100 cm^3/min at 100 bar [1)]

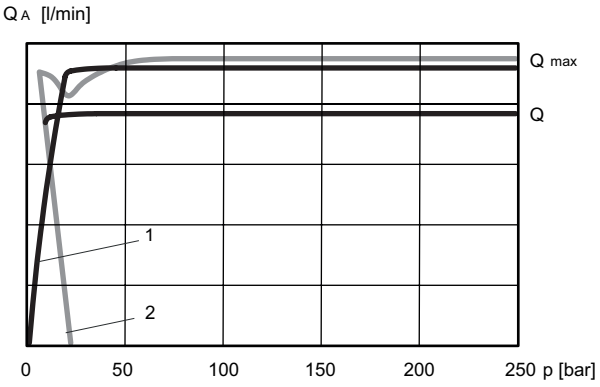
NOTE!
1) Values refer to an oil viscosity of 35 mm^2/s (cSt).
2) Values refer to the selected flow range.

NOTE!
For other values please contact Bucher Hydraulics.

Performance graphs

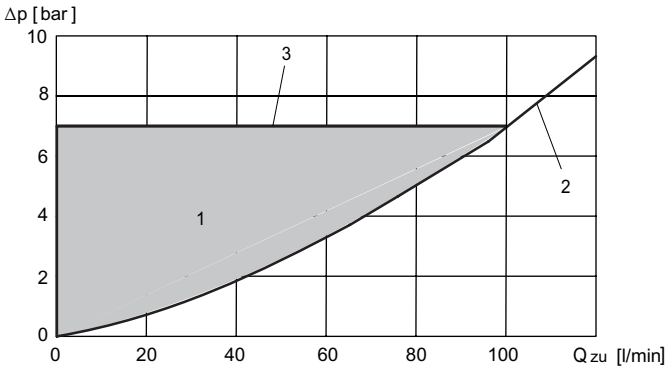
measured with oil viscosity 35.0 mm²/s (cSt)

Q = f (pl) Flow rate load-pressure



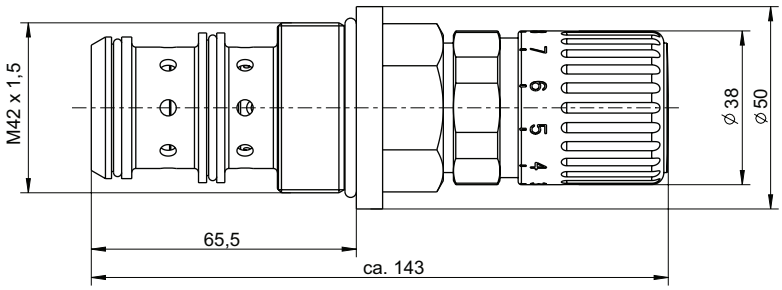
1 = Q_A - Constant flow pressurised
2 = Q_A - Surplus flow pressurised

Δp = f (Q) Pressure drop-flow rate characteristic



1 = Pressure loss area (The actual pressure-loss characteristic is dependent on the tank pressure at port B)
2 = Control valve throttlingcurve (Dependent on applied body)
3 = Control Δp - characteristic 7 bar

Dimensions and sectional view



Installation information

ATTENTION!
Expert and product knowledge is required for the layout of this valve type. Use exclusively for the intended purpose within the indicated values. The valve manufacturer must be consulted for use of the appliance outside the specifications. All applications must be verified by sufficient tests to ensure safety in the application. The ultimate responsibility for safety during installation and use resides with the end appliance manufacturer.
All limit values listed in the data sheet apply to typical mobile hydraulic applications with a max. rate of pressure rise of 4000 bar (higher values after consultation).

ATTENTION!
Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.

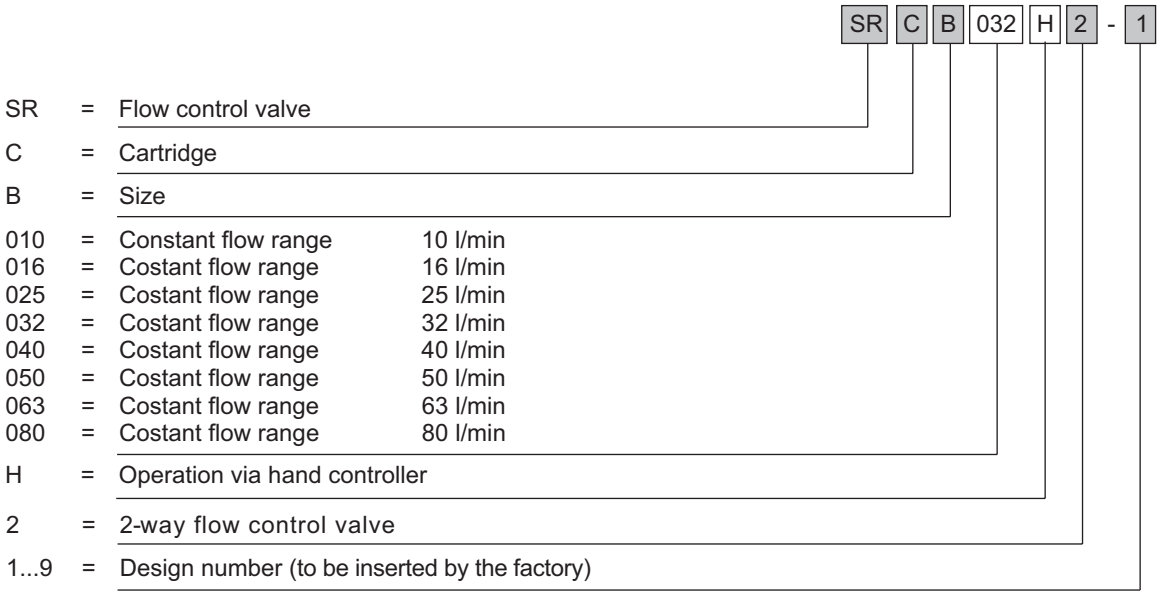
NOTE!
When fitting the screw-in cartridge valve, use the specified tightening torque. The value can be found in the chapter "Technical data".
We offer form tool sets for sale or hire.
Description: 1835 A D32 (Id. No.: 100603875).

NOTE!
Bleed all air from the system (if possible, operate valve several times without load).

Application examples

Possible applications can be:
- Harvesters
- Sweepers
- Refuse collection vehicles
- Fertiliser spreaders
- Snow and ice clearin equipment
- Mowers
- Road rollers
- Municipal vehicles
- Forestry machines
- Wood chippers
- ...

Ordering code



Related data sheets

Reference	Description
100-D-400971	Cavity GB3NM42

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