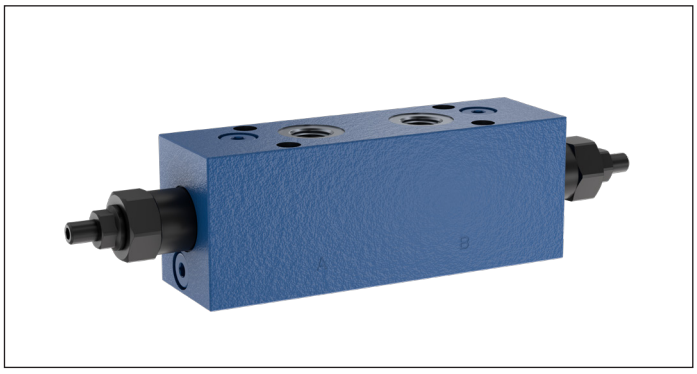
rexroth
A Bosch Company

Flangeable elements with Cross Piloted Counterbalance Valves

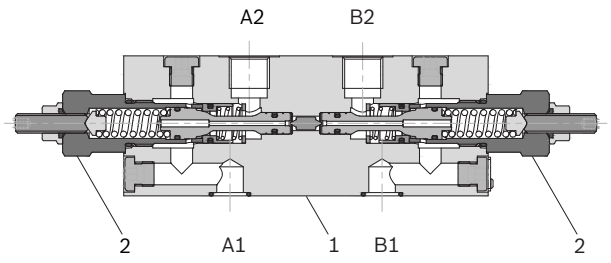
EDCMF-VB

RE 18301-50
Edition: 02.2026



Description

The flangeable elements EDCMF-VB- can be bolted on top of the A and B ports of the EDC elements of the directional valve assembly.
They incorporate one or two cross piloted counterbalance valves (2) which allow free flow toward the A and B ports, and lock the returning flow from the actuator. Pilot pressure in the opposite line reduces the pressure setting of the counterbalance valve proportionally to the pilot ratio (4:1 or 11:1) until opening and allowing the flow return from the actuator.
The pressure setting should be at least 1,3 times the highest expected load.
Depending on the version selected (AB or 0A), the counterbalance function can be double-acting or single-acting.
The body (1) of the EDCMF-VB elements is made of zinc plated cast iron. Hydraulic Ports A2 and B2 can be size G 3/8, G1/2 or 3/4-16 UNF (SAE8).



Technical data

General		
Weight of manifold, with two counterbalance valves EDCMF-VB-AB	kg (lbs)	2.8 (6.17)
Weight of manifold, with one counterbalance valve EDCMF-VB-0A	kg (lbs)	2.3 (5.07)
Ambient Temperature	°C (°F)	–20....+50 (-4....+122) (NBR seals)
Hydraulic		
Maximum pressure	bar (psi)	310 (4496)
Maximum flow	l/min (gpm)	60 (16)
Hydraulic fluid General properties: it must have physical lubricating and chemical properties suitable for use in hydraulic systems such as, for example:		Mineral oil based hydraulic fluids HL (DIN 51524 part 1). Mineral oil based hydraulic fluids HLP (DIN 51524 part 2). For use of environmentally acceptable fluids (vegetable or polyglycol base) please consult us.
Fluid Temperature	°C (°F)	–30....+90 (-22....+194) (NBR)
Permissible degree of fluid contamination		ISO 4572: $\beta_x \geq 75$ X=10...12 ISO 4406: class 19/17/14 NAS 1638: class 8
Viscosity range	mm^2/s	5....420

Note
For applications with different specifications consult us

Ordering details

01	02	03	04	05	06	07	
L	**85**	**35**					**0**

Family

01	Directional Valve	**L**

Model

02	Flangeable element secondary for EDC valves	**85**

Type

03	Cross Piloted Counterbalance Valves	**35**

Pilot ratio

04	Pilot ratio 4:1	**02**
	Pilot ratio 11:1	**03**

Configuration[1)]

04	Counterbalance Valves for both A and B ports	**AB**
	Counterbalance Valve for port A only	**0A**

Counterbalance configuration range

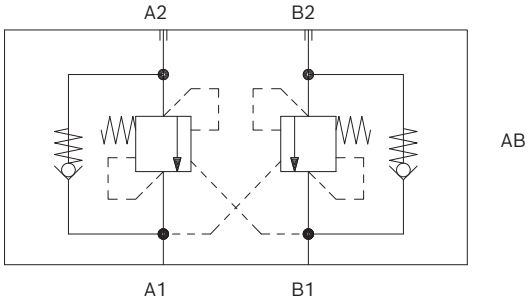
05	60-210 bar (870-3045 psi)	**20**
	100-350 bar (1440-5076 psi)	**35**

Ports[2)]

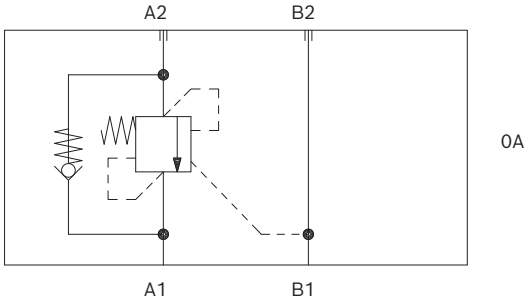
06	G 3/8 DIN 3852	**0**
	G 1/2 DIN 3852	**2**
	3/4-16 UNF 2-B (SAE8)	**3**

1) For counterbalance valve on B port use 0A version and swap hoses on the modular ports.
2) Modular elements can be flanged only on EDC with “M” configuration (Machined to interface modular elements).

Symbols



AB

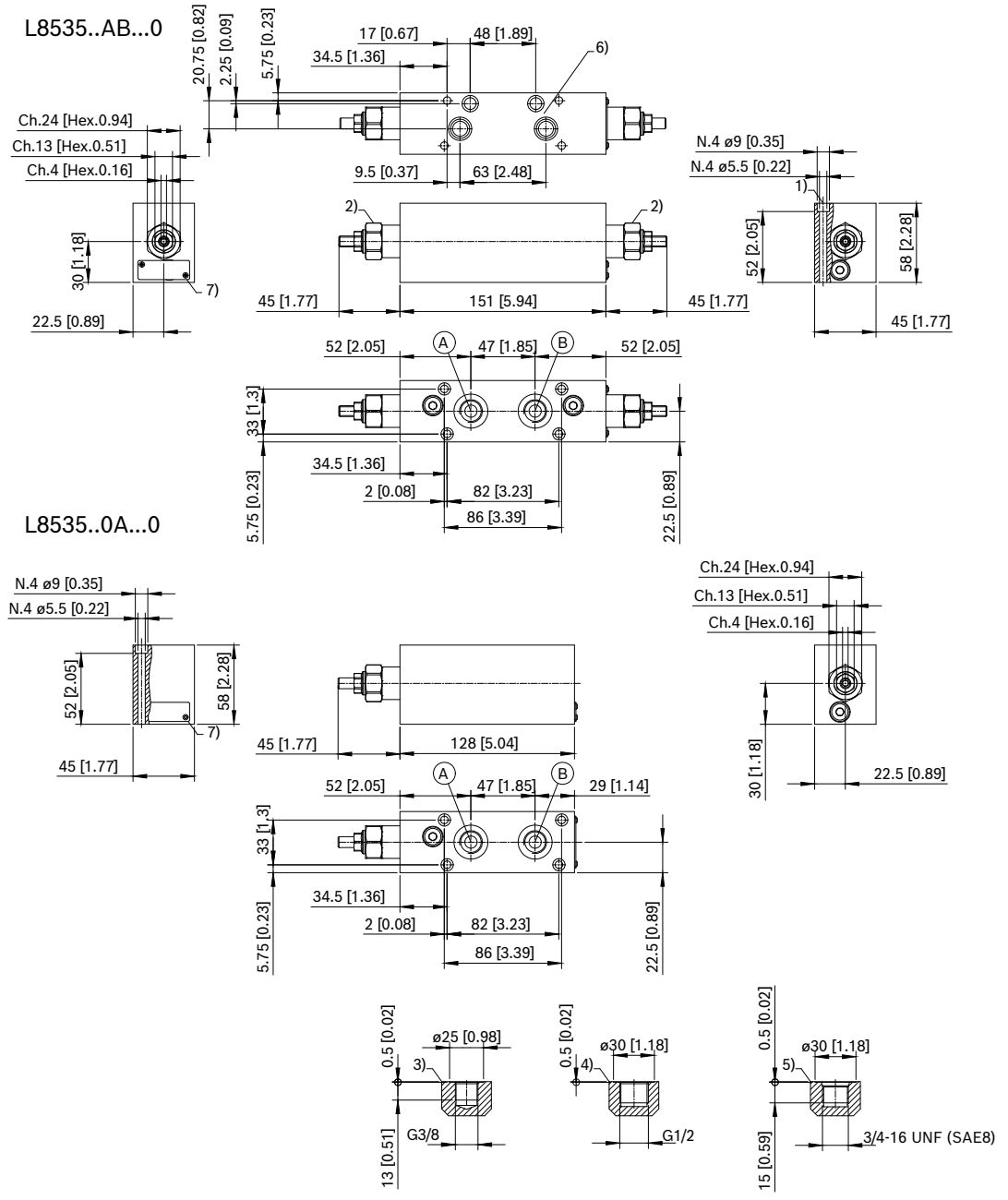


0A

Characteristic curves

For characteristic curves, refer to catalog RE18307-72.

External dimensions and fittings



1 Four through holes Ø 5.5 mm (0.217 inch). For screws and tightening torques see data sheet RE 18301-90.
2 Counterbalance valve with screw type adjustment.
3 A and B ports G3/8
4 A and B ports G1/2
5 A and B ports 3/4-16 UNF 2-B (SAE8)
6 Available seal kit K-1001 (R933008729)
7 Identification label

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