

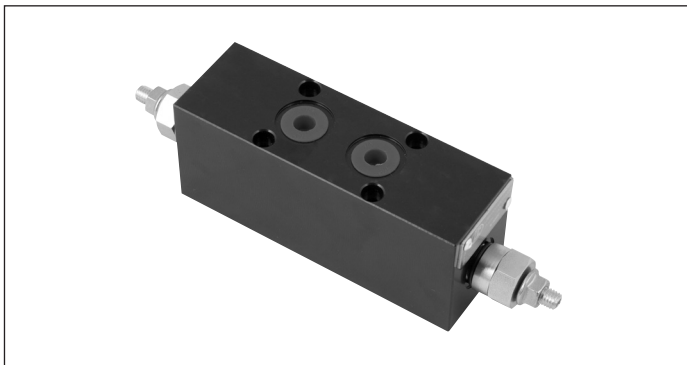
Flangeable elements with Cross Piloted Counterbalance Valves

EDM-VB

RE 18301-43

Edition: 02.2016

Replaces: 07.2012



Description

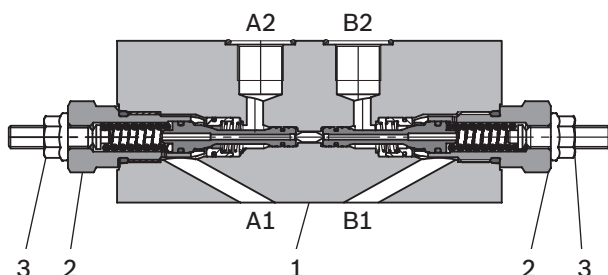
The secondary flangeable elements EDM-VB-__ can be interfaced and bolted on top of the A and B ports of the ED elements of the Directional Valve Assembly.

They incorporate one or two Cross Piloted Counterbalance Valves which allow free flow toward the A and B outlet ports, and lock in a leak free mode the flow returning from the actuator. Pilot pressure in the opposite line reduces the pressure setting of the counterbalance valve in proportion to the pilot ratio (4:1) 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 (02AB, 020A or 020B), the counterbalance function can be double-acting or single-acting, upstream or downstream, in both A and B ports, or in A port only, or in B port only (see hydraulic symbols).

The body of the EDM-VB elements is made of Black Anodized Aluminium. Hydraulic Ports A and B are size G 3/8.



Technical data

General

Weight of manifold, with two counterbalance valves EDM-VB-AB	kg (lbs)	1.2 (2.65)
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Weight of manifold, with one counterbalance valve EDM-VB-0A	kg (lbs)	1.02 (2.24)
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Ambient Temperature	°C (°F)	-20....+50 (-4....+122) (NBR seals)
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Hydraulic

Maximum pressure	bar (psi)	250 (3625)
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Maximum flow	l/min (gpm)	40 (10.5)
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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.
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Fluid Temperature	°C (°F)	-20....+80 (-4....+176) (NBR)
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Permissible degree of fluid contamination	ISO 4572: $\beta_{x \geq 75} X = 10 \dots 12$ ISO 4406: class 19/17/14 NAS 1638: class 8
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Viscosity range	mm ² /s	5....420
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Note

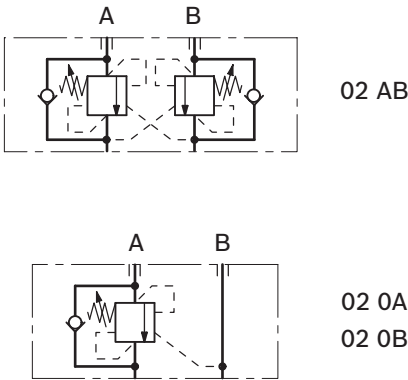
For applications with different specifications consult us

Ordering details

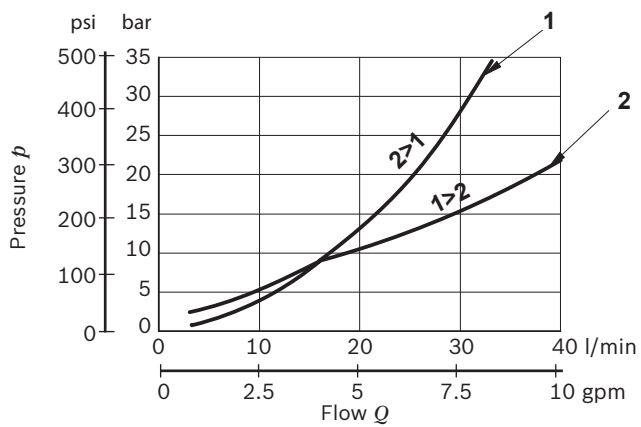
01	02	03	04	05	06	
L	88	35		35	00	0
Family						
01	Directional Valve elements ED					L
Model						
02	Flangeable element secondary valves					88
Type						
03	Cross Piloted Counterbalance Valves					35
Configuration						
04	Counterbalance Valves for both A and B ports					02AB
	Counterbalance Valve for port A only					020A
	Counterbalance Valve for port B only					020B ¹⁾
Counterbalance pressure range						
05	100-310 bar (1440-4496 psi)					35
Ports ²⁾						
06	G 3/8 DIN 3852, flangeable on G 3/8 ports					0
	9/16-18 UNF 2-B (SAE6), flangeable on G 3/8 ports					1
	3/4-16 UNF 2-B (SAE8), flangeable on G 3/8 ports					3
	3/4-16 UNF 2-B (SAE8), flangeable on SAE8 ports					A

- 1) The version "020B" is similar to "020A" by rotating the block of 180°.
- 2) Modular elements can be flanged on standard G 3/8 or SAE8 valve body

Symbols



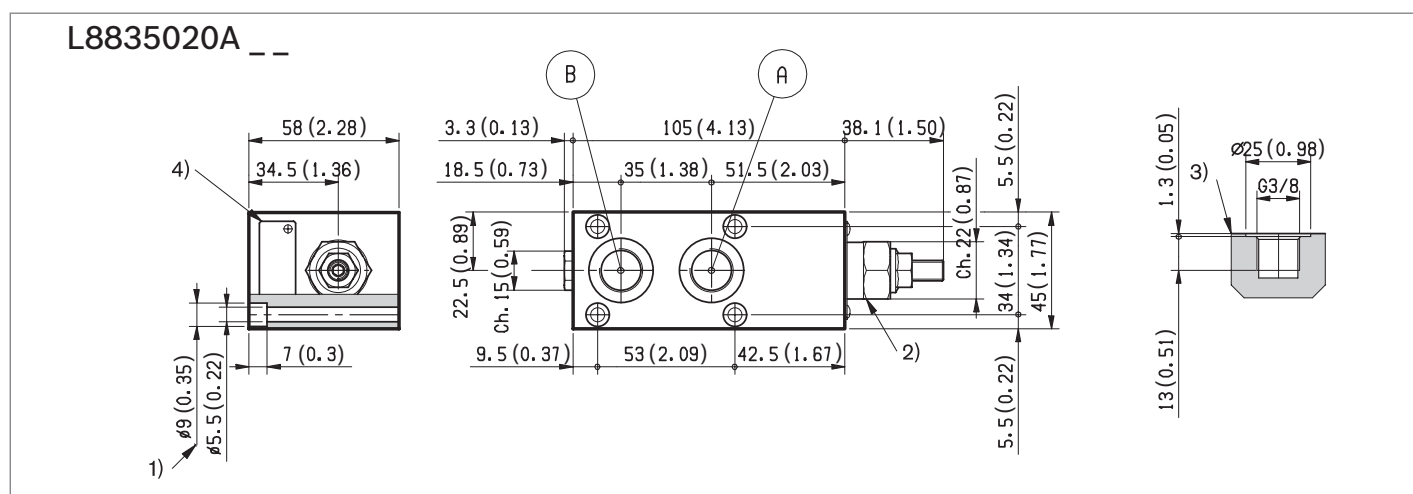
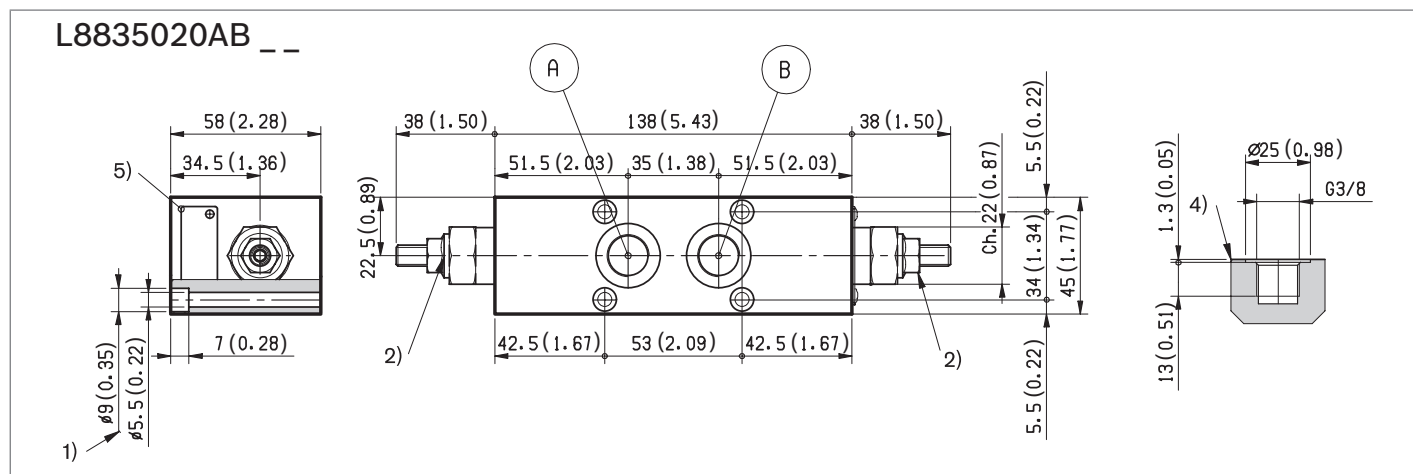
Characteristic curves



Pressure drop	Curve no.
Fully piloted	1
Through check valve	2

Measured with hydraulic fluid ISO-VG32 at $45^{\circ} \pm 5^{\circ} \text{C}$ ($113^{\circ} \pm 9^{\circ} \text{F}$); ambient temperature 20°C (68°F).

External dimensions and fittings



- 1 Four through holes $\varnothing 5.5$ mm (0.217 inch) for screws and tightening torques see data sheet RE 18301-90.
- 2 Counterbalance valve with screw type adjustment.

- 3 A1 and B1 ports for the actuator.
- 4 Identification label.

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Subject to change.