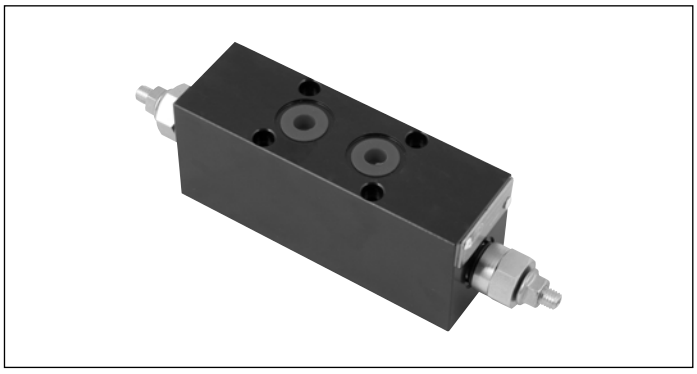
Flangeable elements with Cross Piloted Counterbalance Valves

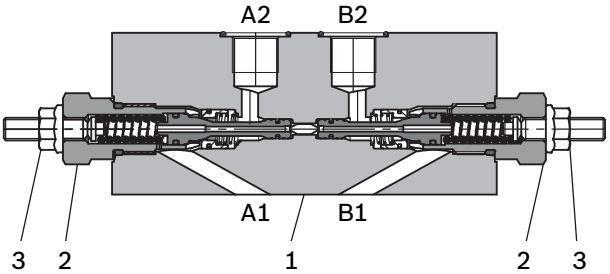
EDM-VB

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)
Weight of manifold, with one counterbalance valve EDM-VB-0A	kg (lbs)	1.02 (2.24)
Ambient Temperature	°C (°F)	–20....+50 (-4....+122) (NBR seals)
Hydraulic		
Maximum pressure	bar (psi)	250 (3625)
Maximum flow	l/min (gpm)	40 (10.5)
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)	–20....+80 (-4....+176) (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	
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**[3]

Counterbalance pressure range [1]

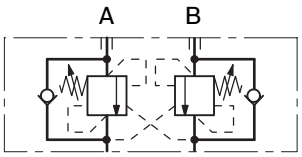
05	100-250bar (1440-3626 psi)	**35**

Ports

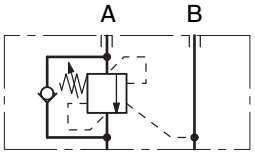
06	G 3/8 DIN 3852	**0**
	9/16-18 UNF 2-B (SAE 6)	**1** [2]

1) Configuration 02AB with fixed spring setting (160 bar (2300 psi) or 210 bar (3000 psi) or 250 bar (3600 psi)) available on request.
2) Available only for configuration 02AB
3) The version "020B" is similar to "020A" by rotating the block of 180°.

Symbols

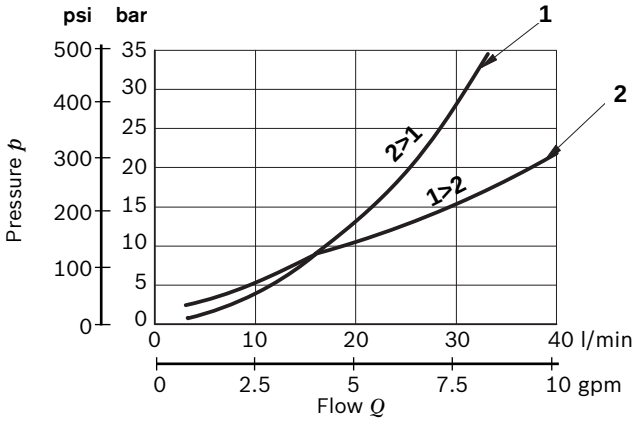


02 AB



02 0A
02 0B

Characteristic curves

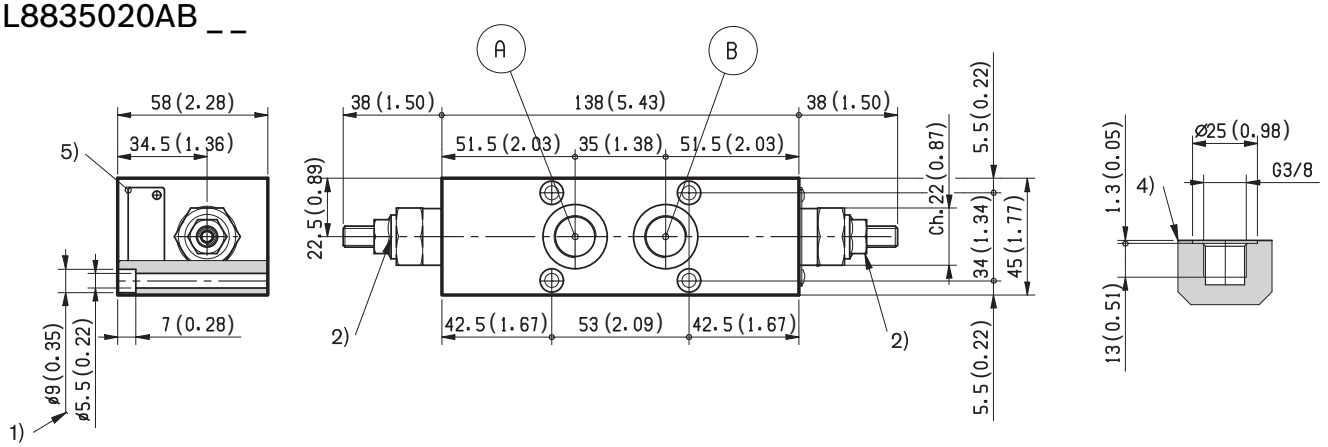


Pressure drop	Curve no.
Fully piloted	1
Through check valve	2

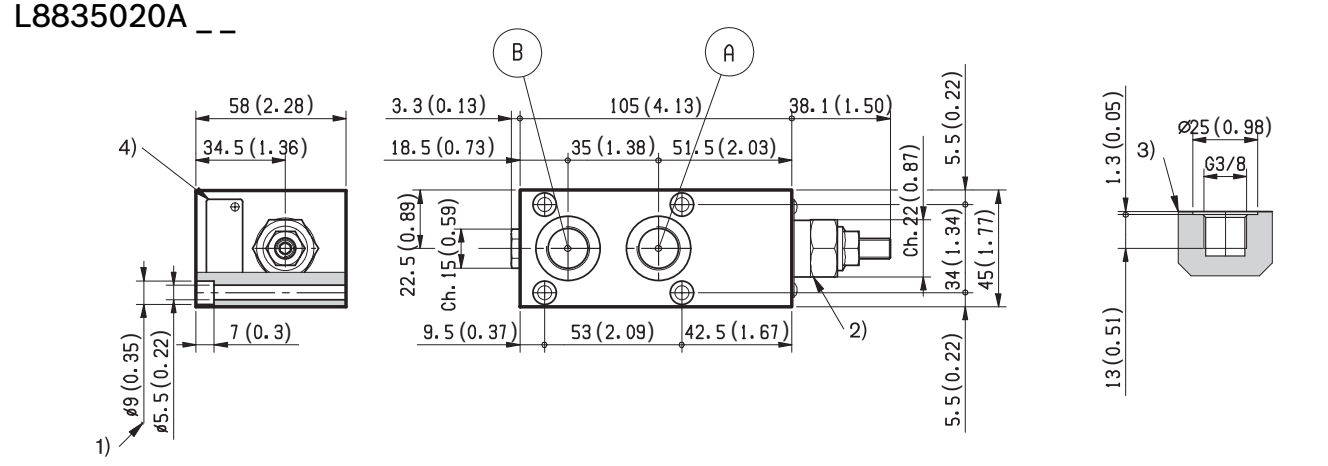
Measured with hydraulic fluid ISO-VG32 at 45° ±5 °C (113° ±9 °F); ambient temperature 20 °C (68 °F).

External dimensions and fittings

L8835020AB _ _



L8835020A _ _



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

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