

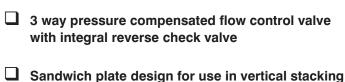
#### 3 Way Flow Control Valves

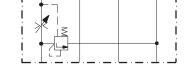
VSS1-306

HA 5033 7/2012

Replaces HA 5033 5/2008

Size 06 • p<sub>max</sub> 320 bar • Q<sub>max</sub> 16 L/min





assemblies

☐ Flow rate setting with adjustment knob

Installation dimensions to ISO 4401-03-02-0-94 and DIN 24 340-A6

☐ Subplates - see Data Sheet HA 0002



#### **Functional Description**

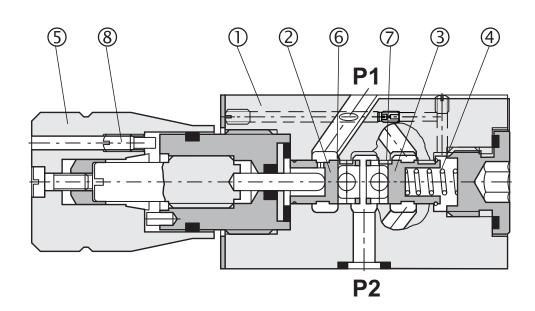
3 way pressure compensated flow control valves are designed to provide adjustable controlled flow rates independent of changes in system pressure.

The flow control valve consists basically of housing (1), throttling spool (2), pressure compensator (3), spring (4) and hand knob (5) with adjustment mechanism.

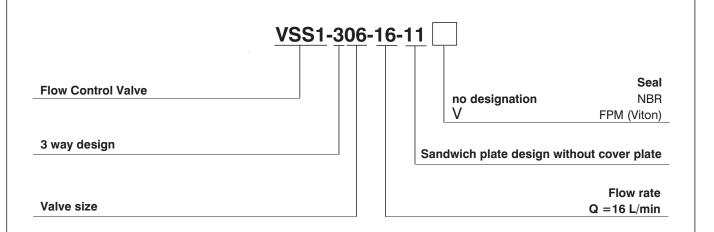
Fluid from port P2 is divided into two parts, one part of flow passes through orifice area (6) of the throttling spool and onwards through bore P to port P1, the other part proceeds through orifice area (7) of the compensator to port T. The flow rate depends on the

orifice area (6) and is determined by rotating the adjustment knob (5). The knob can be fixed at the set position via adjustment screw (8). The compensator compares continuously the pressure difference at the orifice area (6) with the amount preset by the spring pretension and modulates accordingly the orifice area (7) of the compensator which relieves the excessive flow to tank, thus holding the flow rate constant.

The valve housing is phosphate coated, the surfaces of the other parts are zinc coated.



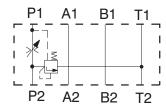
#### **Ordering Code**



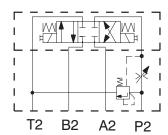
# FOR PREFERRED TYPES SEE BOLD TYPING IN ORDERING CODE AND TABLE OF PREFERRED TYPES ON PAGE 3

## **Functional Symbols**

Functional symbol of the valve



Typical application of the valve in stacking assembly\*



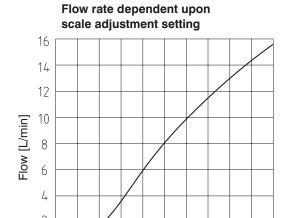
#### **Technical Data**

Valve size	mm	06
Maximum flow	L/min	16
Minimum flow	cm <sup>3</sup> /min	60
Maximum operating pressure	bar	320
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Fluid temperature range for (NBR)	°C	-30 +100
Fluid temperature range for (Viton)	°C	-20 +120
Viscosity range	mm <sup>2</sup> /s	20 400
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406
Permissible flow rate variation at pressure change 6 100%	%	± 10
Weight	kg	0.8
Mounting position		unrestricted

<sup>\*</sup>Directional valve must be ordered separately

#### **Characteristics**

Measured at  $v = 32 \text{ mm}^2/\text{s}$ 



5

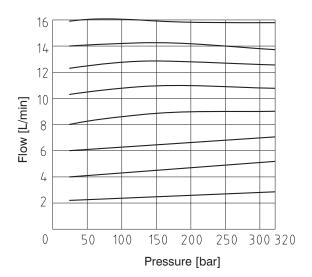
3 Adjustment mechanism: clockwise rotation=flow decrease

4 Hole with set screw for fixing the handknob in set position

counter-clockwise rotation=flow increase

Scale division on valve

Flow rate dependent upon pressure



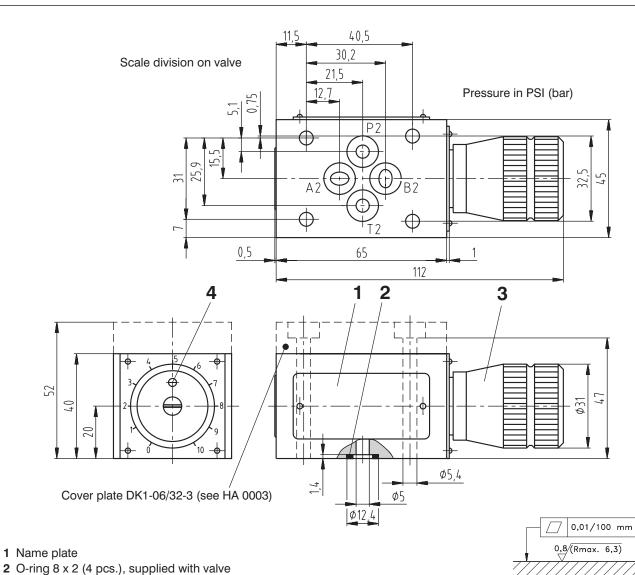
#### **Valve Dimensions**

0

Dimensions in millimeters

10

9



Required surface finish of

interface

#### **Spare Parts**

#### Seal kit

Туре	Dimensions, quantity	Ordering number	
	O-ring		
Standard NBR	19,6 x 2,3 (1pc.)		
	8/4 1078 NBR80 (1 pc.)		
	16 x 2 (1 pc.)	20794900	
	9,25x1,68 (4 pcs.)		
	14 x 2 (1 pc.)		
Viton	19.3 x 2.4 (1 pc.)		
	3 x 2.4 (1 pc.)	20794800	
	16 x 2 (1 pc.)		
	9.25 x 1.78 (4 pcs.)		
	14 x 2 (1 pc.)		

## **Preferred Types of Valves**

Туре	Ordering number
VSS1-306-16-11	20794000

### Caution!

- The packing foil is recyclable.
- The transport plate is to be returned to the supplier.
- Mounting bolts M5x60 or assembly studs (4 pcs.) must be ordered separately. Tightening torque 8.9 Nm.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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