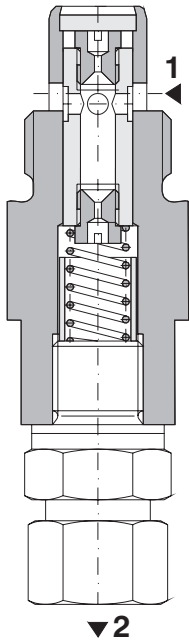


2-Way Flow Regulator, Pressure Compensated, Not Adjustable

VSK

M18 x 1.5 / M22 x 1.5 / G 3/8 • Q_{max} 15 l/min (4 GPM) • p_{max} 320 bar (4600 PSI)

VSK4

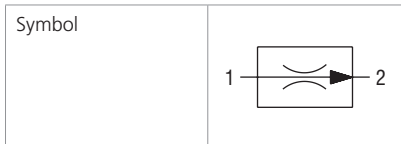


Technical Features

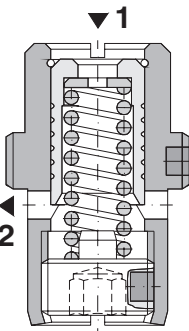
- › Set flow rate independent of load pressure and temperature changes
- › Adjusted flow rate depends on the orifice area
- › Hardened precision parts
- › Quiet and modulated response to load changes
- › Used in meter-in, meter out, or bleed-off applications
- › Two design models for in-block installation
- › Wide selection of throttling orifices
- › The housing of the VSK2 valve is without surface treatment, the VSK4 housing is phosphated. All the other parts are zinc-coated.

Functional Description

The pressure compensated flow control valves VSK are designed to control flow rates independently of pressure and temperature, especially in systems where only small movements due to load changes are required. The flow rate stabilization is provided by a pressure compensator in the direction from 1 to 2. In the direction 2 - 1, the valve works as an ordinary throttle valve without pressure compensation. The set flow rate is constant and depends on the orifice area – see the respective characteristics.



VSK2



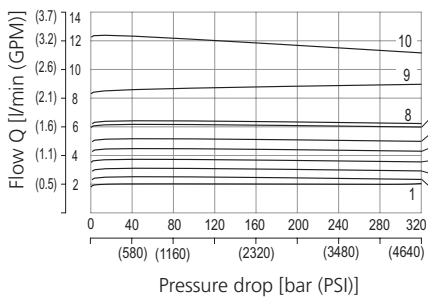
Technical Data

		VSK2	VSK4
Valve type			
Valve size		M18 x 1.5 or G 3/8	M22 x 1.5
Max. flow	l/min (GPM)	15 (3.96)	11.5 (3.04)
Max. operating pressure	bar (PSI)	320 (4640)	
Fluid temperature range	°C (°F)	-30 ... +120 (-22 ... +248)	
Weight	kg (lbs)	0.025 (0.055)	0.200 (0.44)
		Type	
General information	Datasheet	Products and operating conditions	
Spare parts	SP_8010		

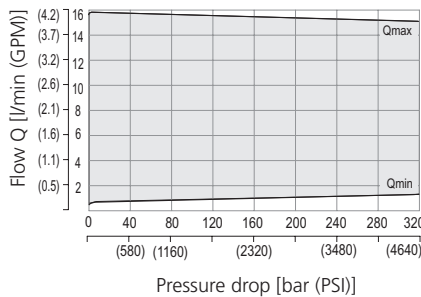
Characteristics measured at v = 32 mm²/s (156 SUS)

Regulated flow as a function of valve pressure drop for individual orifice diameters

Flow direction 1 - 2 (regulated flow) VSK4

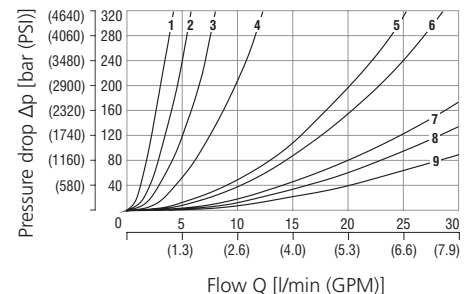


Flow direction 1 - 2 (regulated flow) VSK2



Pressure drop related to flow rate

Flow direction 2 - 1 (throttling without compensation) VSK4 (orifice diameter (mm/100))



1 → 2		Orifice diameter (mm/100)									
VSK4											
No.		1	2	3	4	5	6	7	8	9	10
∅ orifice		100	110	120	130	140	150	160	180	200	250

The flow through VSK-2 valve can be set in the marked area according to selected combination of orifice diameter and set pressure drop of the valve by preloaded spring of compensator spool. (It is impossible to change a position of adjusting screw after mechanical securing.) The flow range for individual orifice diameters – see table on the 2nd page.

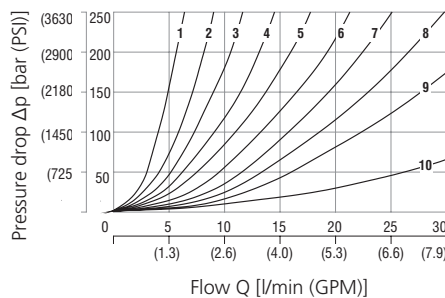
2 → 1		Orifice diameter (mm/100)				
		1	2	3	4	5
No.		1	2	3	4	5
∅ orifice		55	80	100	120	160
No.		6	7	8	9	
∅ orifice		180	210	230	260	

Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Pressure drop related to flow rate

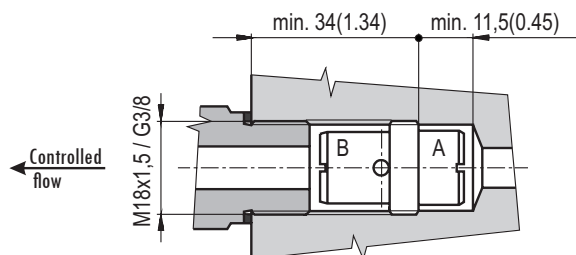
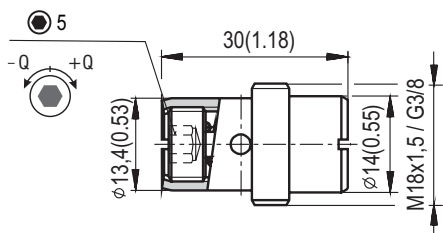
Flow direction 2 - 1 (throttling without compensation)
VSK2 (orifice diameter (mm/100))

2 → 1	Orifice diameter (mm/100)				
No.	1	2	3	4	5
∅ orifice	100	110	120	130	140
No.	6	7	8	9	10
∅ orifice	150	160	180	200	250

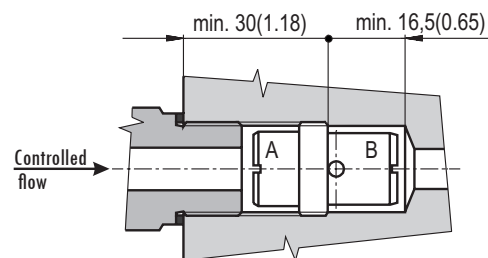
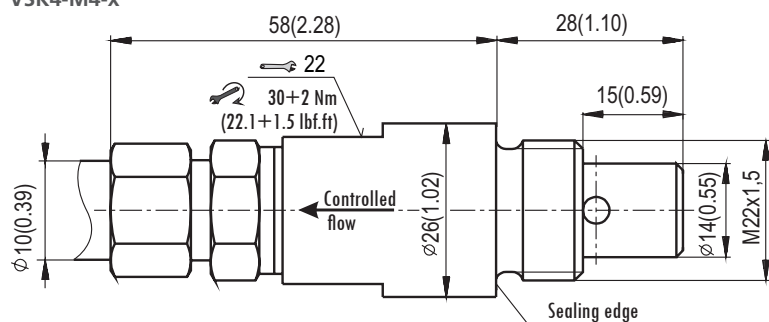


Dimensions in millimeters (inches)

VSK2-M2-x



VSK4-M4-x



Approximate Flow Rates Corresponding to Orifice Diameter

VSK2		VSK4	
Orifice diameter [mm/100]	Flow range l/min (GPM) at 32 bar (464 PSI) adjusted to customer spec. at manufacturer	Orifice diameter [mm/100]	Flow range l/min (GPM) at input pressure 32 bar (464 PSI)
55	0.3 - 0.6 (0.08 - 0.16)	100	2.1 (0.56)
80	1.4 - 1.7 (0.37 - 0.45)	110	2.4 (0.63)
100	1.8 - 2.4 (0.48 - 0.63)	120	3.0 (0.79)
120	3.1 - 4.0 (0.82 - 1.06)	130	3.8 (1.01)
160	5.5 - 6.5 (1.46 - 1.72)	140	4.3 (1.14)
180	5.6 - 7.1 (1.48 - 1.88)	150	4.9 (1.30)
210	8.5 - 10.8 (2.25 - 2.86)	160	6.3 (1.67)
230	10.7 - 13.3 (2.83 - 3.52)	180	6.6 (1.75)
260	12.0 - 16.4 (3.17 - 4.34)	200	8.7 (2.30)
		250	12.5 (3.31)

Ordering Code

2-Way flow regulator,
pressure compensated,
not adjustable

Model

screw-in cartridge **2**
pipe mounted / screw-in cartridge **4**

Connection threads

metric thread (M18 x 1.5 for VSK2) **M2**
metric thread (M22 x 1.5 for VSK4) **M4**
pipe thread (G 3/8 only for VSK2) **G4**



No designation

Surface treatment
VSK2 housing without surface treatment
VSK4 housing is phosphated
steel parts zinc-coated (ZnCr-3), ISO 9227 (240 h)
zinc-coated (ZnCr-3), ISO 9227 (240 h)
zinc-coated (ZnNi), ISO 9227 (520 h)

*only for VSK4

VSK2	055	080	100	-	120	-	-	-	160	180	-	210	230	-	260
VSK4	-	-	100	110	120	130	140	150	160	180	200	-	-	250	-