

# VFC Series

## Variable Flow Pressure Compensated Control Valve

**Variable Flow Control Valves maintain the flow rate of hydraulic fluid to a selected value.**

Applications include hydraulic cylinders requiring constant extension or retraction speeds and hydraulic motors requiring constant rotational speeds. When used with a fixed delivery pump the excess flow is By-Passed across a relief valve.

### Specifications

**Maximum Pressure:** 210 bar, 3000 psi

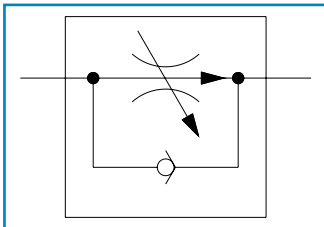
**Maximum Flow:** 55 lpm, 15 US gpm

**Porting:** SAE, BSP & NPT (see Table 2)

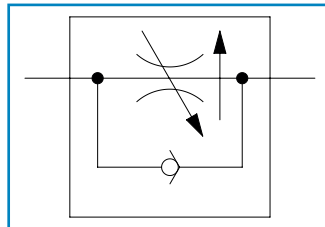
**Material:** Steel components in an aluminium body. NBR & PTFE seals.

**Weight:** See Table 3

### ISO Symbol



### ANSI Symbol



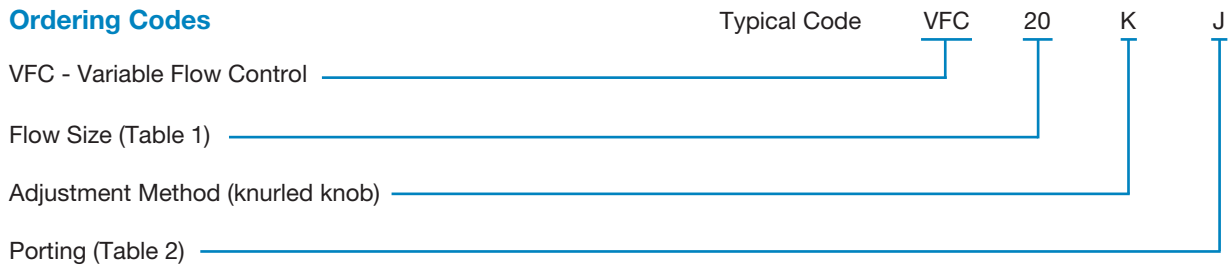
### Features

- Pressure compensated to ensure a constant flow rate under varying pressures.
- Knurled knob enables fast, accurate adjustment of flow rate in one direction (under pressure) from 1.5 lpm to 55 lpm, 0.5 US gpm to 15 US gpm.
- Knurled knob can be locked in position by a grub (set) screw and provides weatherproof sealing to prevent the adjusting screw from corroding or seizing.
- Free (uncontrolled) flow is permitted in reverse direction.



*Hydraulic measurement and control*

### Ordering Codes



**Table 1:** Flow size

Code	Flow Range (lpm)	Flow Range (US gpm)
20	1.5 - 20	0.5 - 5
40	2.0 - 40	0.5 - 10
55	2.0 - 55	0.5 - 15

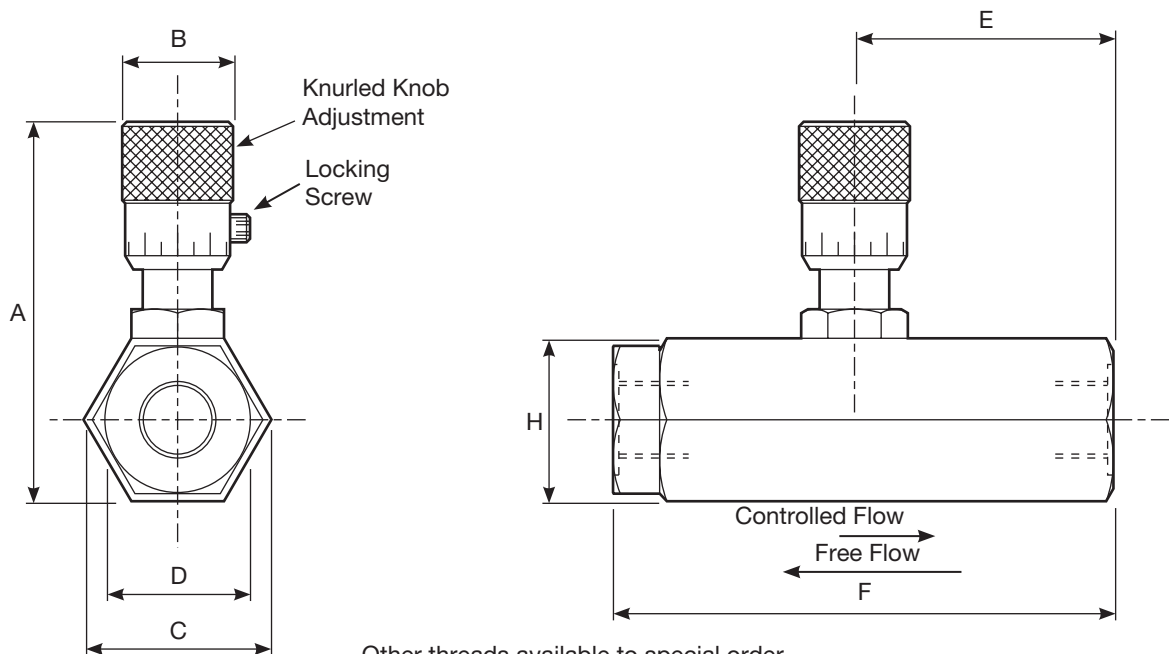
**Table 2:** Porting

Porting Code	Flow Size Code	Porting
J	20	1/4" BSPP
	40	3/8" BSPP
	55	1/2" BSPP
A	20	1/4" NPTF *
	40	3/8" NPTF *
	55	1/2" NPTF *
G	20	7/16" -20UN #4 SAE ORB
	40	9/16" -18UN #6 SAE ORB
	55	3/4" -16UN #8 SAE ORB

\* All NPTF threads are to ANSI B1.20.3 -1976 Class 1. As stated in the standard it is recommended that "sealing is accomplished by the means of a sealant applied to the thread". NPT fittings may also be used to connect to NPTF ports (also with a sealant applied to the thread)

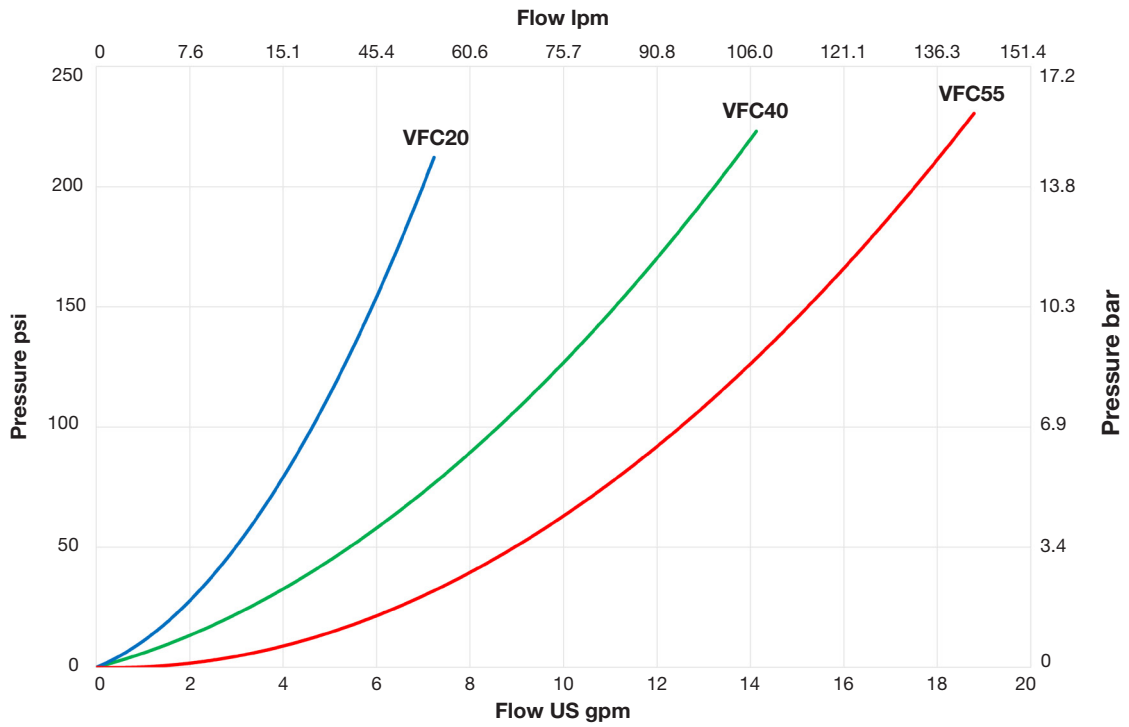
**Table 3:** Dimensions mm (In)

Flow Size Code	A	B	C	D	E	F	H	Weight kg (lb)
20	69.5 (2.74)	19.1 (0.75)	32.9 (1.30)	25.0 (0.98)	44.5 (1.75)	86.0 (3.39)	28.5 (1.12)	0.2 (0.4)
40	84.4 (3.32)	24.0 (0.94)	44.0 (1.73)	35.3 (1.40)	57.1 (2.25)	107.0 (4.21)	38.1 (1.50)	0.4 (0.9)
55	86.3 (3.40)	24.0 (0.94)	49.0 (1.93)	38.1 (1.50)	63.5 (2.50)	118.5 (4.67)	42.4 (4.67)	0.5 (1.1)



## Reverse Flow Typical Pressure Drop

All tests completed using ISO32 Mineral oil at 40 degrees C (32 cSt)



## VFC40 Typical Performance Data

All tests completed using ISO32 Mineral oil at 40 degrees C (32 cSt)

