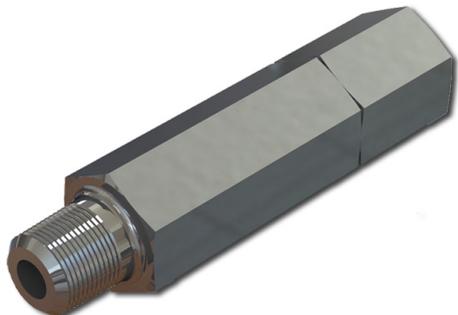


# Pressure Compensated Flow Control Valve

$Q_{\max} = 3 \text{ gpm}$ ,  $p_{\max} = 4000 \text{ psi}$   
 fixed in-line, body design, line-mounting  
 Series VAPCFC...



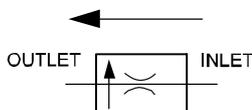
- For line-mounting installations
- Accuracy  $\pm 5\%$
- Multiple inlet / outlet options
- Steel body with zinc chromate finish

## 1 Description

The valve is a fixed pressure compensated, in-line flow control valve. The standard product offering listed in this data sheet regulates flows ranging from 0.5 gpm to 3.0 gpm in increments of 0.5 gpm. Additional flow rates are available; please contact the factory. This valve has an accuracy rate

of  $\pm 5\%$ , regardless of load pressures (per maximum pressure ratings). It is available in a variety of inlet and outlet sizes and configurations. The rugged steel body construction makes this valve applicable in a myriad of applications.

## 2 Symbol



## 3 Technical data

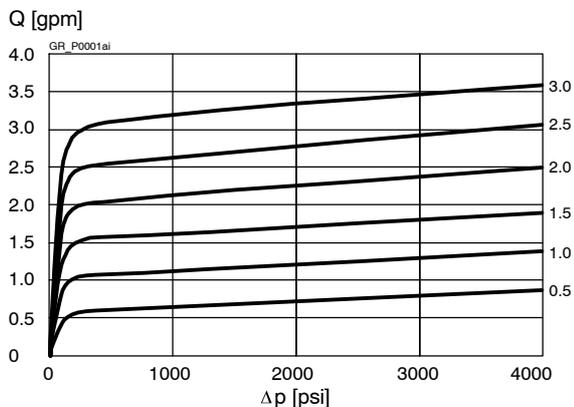
General characteristics	Description, value, unit
Designation	pressure compensated flow control valve
Design	body, hexagonal
Size	see section 5
Mounting method	line-mounting
Port	NPTF 1/4" NPTF 3/8" SAE 9/16" SAE 3/4"
Mounting attitude	unrestricted
Ambient temperature range	-40 °F ...+176 °F
Surface corrosion protection	stainless steel body, clear zinc chromate finish
Hydraulic characteristics	Description, value, unit
Maximum operating pressure	4000 psi
Maximum flow rate	3 gpm
Nominal flow / switching range	0.5 ... 3.0 gpm, available in 0.5 gpm increments (contact factory for additional flow rates)

Hydraulic characteristics	Description, value, unit
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil to DIN 51 524; for other fluids, please contact BUCHER
Hydraulic fluid temperature range	-13 °F ...+176 °F
Viscosity range	3 ... 1500 mm <sup>2</sup> /s (cSt)
Minimum fluid cleanliness Cleanliness class to ISO 4406 : 1999	class 20/18/15

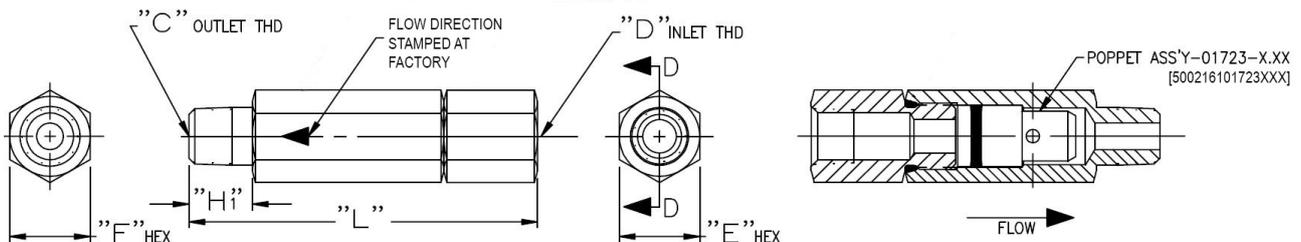
## 4 Performance graphs

Measured with oil viscosity 46 mm<sup>2</sup>/s (cSt)

Q = f (Δp) Flow rate - Pressure drop characteristic



## 5 Dimensions & sectional view



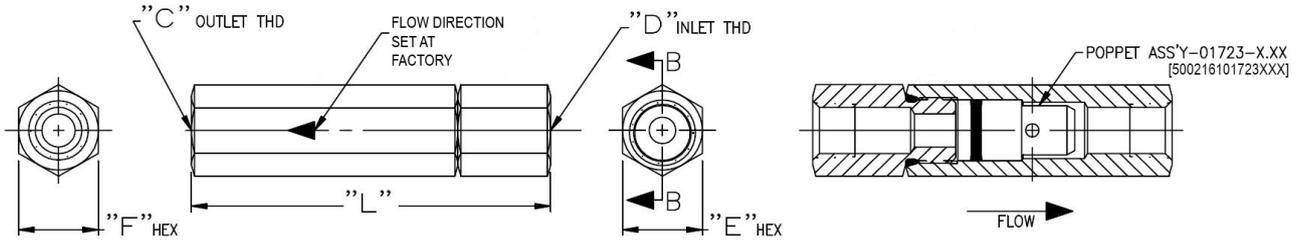
### 5.1 VAPCFC with female inlet, male outlet

Order Code*	Outlet Thread „C“	Inlet Thread „D“	Inlet Hex „E“ (Inches)	Outlet Hex „F“ (Inches)	Overall Length „L“ (Inches)	Inlet Length „Hi“ (Inches)
500218501720XXX	1/4 NPTF	1/4 NPTF	3/4	3/4	3 1/4	0.59
500218501026XXX	3/8 NPTF	3/8 NPTF	7/8	7/8	3 1/4	0.59
500218501829XXX	9/16 SAE	9/16 SAE	3/4	3/4	3 1/16	0.391
500218501833XXX	3/4 SAE	3/4 SAE	7/8	7/8	3 3/8	0.44

\*XXX establishes flow in gpm. Flow rate must be specified to complete the order code.

Example: 500218501720150 = ¼ NPTF Female In, ¼ NPTF male out at 1.50 gpm

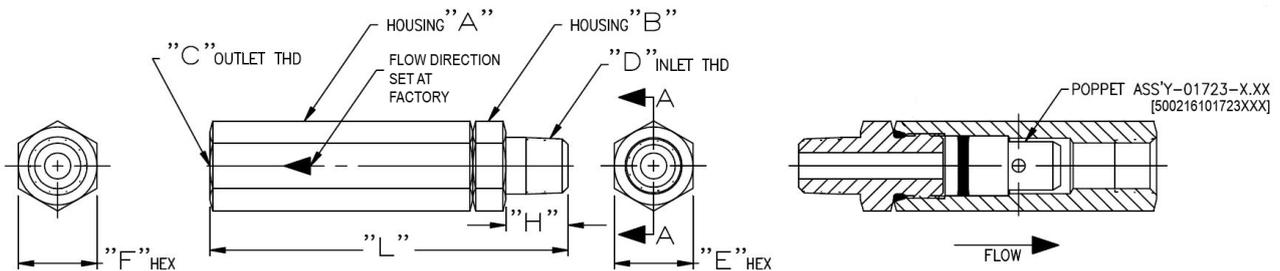
### 5.2 VAPCFC with female inlet, female outlet



Order Code*	Outlet Thread „C“	Inlet Thread „D“	Inlet Hex „E“ (Inches)	Outlet Hex „F“ (Inches)	Overall Length „L“ (Inches)
500218501028XXX	1/4 NPTF	1/4 NPTF	3/4	3/4	3 3/8
500218501031XXX	3/8 NPTF	3/8 NPTF	7/8	7/8	3 3/8
500218501831XXX	9/16 SAE	9/16 SAE	3/4	3/4	3 3/8

\*XXX establishes flow in gpm. Flow rate must be specified to complete the order code.  
Example: 500218501028150 = 1/4 NPTF female In, 1/4 NPTF female Out at 1.50 gpm

### 5.3 VAPCFC with male inlet, female outlet



Order Code*	Outlet Thread „C“	Inlet Thread „D“	Inlet Hex „E“ (Inches)	Outlet Hex „F“ (Inches)	Overall Length „L“ (Inches)	Inlet Length „Hi“ (Inches)
500218501029XXX	1/4 NPTF	1/4 NPTF	3/4	3/4	3 3/8	0.59
500218501032XXX	3/8 NPTF	3/8 NPTF	7/8	7/8	3 3/8	0.59
500218501832XXX	9/16 SAE	9/16 SAE	3/4	3/4	3 13/32	0.391

\*XXX establishes flow in gpm. Flow rate must be specified to complete order code.  
Example: 500218501029150 = 1/4 NPTF male In, 1/4 NPTF female out at 1.50 gpm

### 6 Installation information



#### ATTENTION!

Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.

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Classification: 500. ..