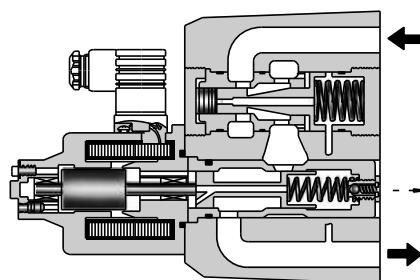


■ Specifications

Model No. Description	EFG EFCG-02-10 30	EFG EFCG-03-60 125	EFG EFCG-06-250	EFG EFCG-10-500
Max. Operating Pres. MPa (PSI)	20.6 (3000)	20.6 (3000)	20.6 (3000)	20.6 (3000)
Metred Flow Adjustment Range L/min (U.S.GPM)	10 : 0.3-10 (.08-2.6) 30 : 0.3-30 (.08-7.9)	60 : 2-60 (.53-15.9) 125 : 2-125 (.53-33)	3-250 (.79-66)	5-500 (1.32-132)
Min. Differential Pres. MPa (PSI)	0.6 (90)	1.0 (145)	1.3 (190)	2.0 (290)
Free Flow (EFCG Models Only.) L/min (U.S.GPM)	40 (10.6)	130 (34.3)	280 (74.0)	550 (145)
Rated Current	600mA	600mA	600mA	700mA
Coil Resistance	43.5 Ω	43.5 Ω	43.5 Ω	43.5 Ω
Hysteresis	Less than 5%	Less than 7%	Less than 7%	Less than 7%
Repeatability	Less than 1%	Less than 1%	Less than 1%	Less than 1%
Approx. Mass kg (lbs.)	8.2 (18.1)	12.5 (27.6)	25 (55.1)	51 (113)

★ Min. pressure difference required between inlet and outlet ports to maintain function as pressure compensator.



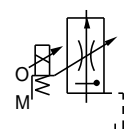
■ Model Number Designation

EFC	G	-02	-10	-31	*
Series Number	Type of Mounting	Valve Size	Max. Metred Flow L/min (U.S.GPM)	Design Number	Design Standards
EF: Proportional Electro-Hydraulic Flow Control Valve	G: Sub-plate Mounting	02	10 : 10 (2.6) 30 : 30 (7.9)	31	Refer to ★
		03	60 : 60 (15.9) 125 : 125 (33)	26	
EFC: Proportional Electro-Hydraulic Flow Control and Check Valve		06	250 : 250 (66)	22	
		10	500 : 500 (132)	11	

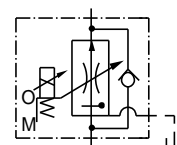
Note: If you are going to use the model with pressure compensator stroke adjustment screw, consult your Yuken representative in advance.

★ Design Standards: None..... Japanese Standard "JIS" and European Design Standard
90..... N. American Design Standard

Graphic Symbols



EFG-*



EFCG-*

■ Attachment

● Mounting Bolts

Valve Model Numbers	Socket Head Cap Screw		Qty.
	Japanese Std. "JIS" and European Design Std.	N. American Design Std.	
EF* G-02	M8 × 75 Lg.	5/16-18 UNC × 3 Lg.	4
EF* G-03	M10 × 100 Lg.	3/8-16 UNC × 4 Lg.	4
EF* G-06	M16 × 130 Lg.	5/8-11 UNC × 5 Lg.	4
EF* G-10	M20 × 160 Lg.	3/4-10 UNC × 6-1/2 Lg.	4

■ Applicable Power Amplifiers

For stable performance, it is recommended that Yuken's applicable power amplifiers be used (for details see the Catalogue No. Pub. EC-1305).

Model Numbers: AME-D-S-*-32

AME-DF-S-*-22

AME-T-S-*-22

■ Sub-plate

Valve Model Numbers	Japanese Standard "JIS"		European Design Standard		N. American Design Standard		Approx. Mass kg (lbs.)
	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	
EFG EFCG-02	EFGM-02X-20	Rc 3/8	EFGM-02X-2080	3/8 BSP.F	EFGM-02X-2090	3/8 NPT	2.3 (5.1)
	EFGM-02Y-20	Rc 1/2	EFGM-02Y-2080	1/2 BSP.F	EFGM-02Y-2090	1/2 NPT	3.1 (6.8)
EFG EFCG-03	EFGM-03Y-20	Rc 3/4	EFGM-03Y-2080	3/4 BSP.F	EFGM-03Y-2090	3/4 NPT	5.7 (12.6)
	EFGM-03Z-20	Rc 1	EFGM-03Z-2080	1 BSP.F	EFGM-03Z-2090	1 NPT	5.6 (12.3)
EFG EFCG-06	EFGM-06X-20	Rc 1	EFGM-06X-2080	1 BSP.F	EFGM-06X-2090	1 NPT	12.5 (27.6)
	EFGM-06Y-20	Rc 1-1/4	EFGM-06Y-2080	1-1/4 BSP.F	EFGM-06Y-2090	1-1/4 NPT	16 (35.3)
EFG EFCG-10	EFGM-10Y-10★	1-1/2, 2 Flange Mounting	EFGM-10Y-1080★	1-1/2, 2 Flange Mounting	EFGM-10Y-1090★	1-1/2, 2 Flange Mounting	37 (81.6)

● Sub-plates are available. Specify the sub-plate model number from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

★ When ordering the EFGM-10Y, see Type F3 Pipe Flange Kits on Catalogue No. Pub. EC-3001 and order an appropriate pipe flange kit also.

■ Models with Pressure Compensator Stroke Adjustment Screw

A models with pressure compensator stroke adjustment screw is optionally available to minimize the actuator protrusion (jumping) at startup. For the details, please consult us or your Yuken distributors.

■ Instructions

● Drain Back Pressure

Check that the drain back pressure does not exceed 0.2 MPa (29 PSI).

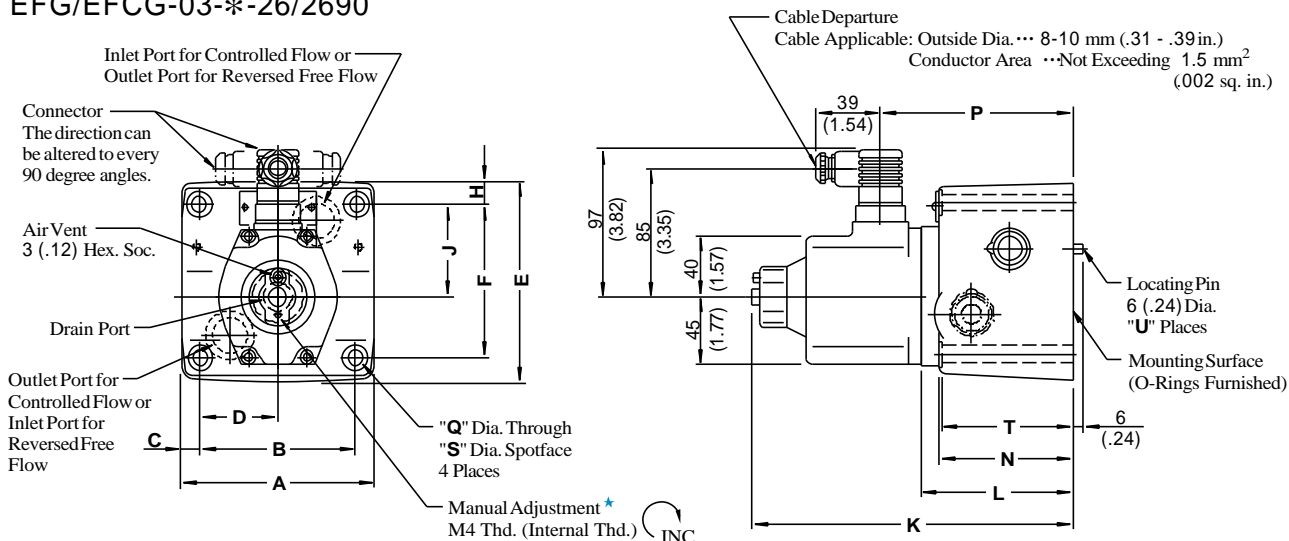
● Models with Check Valve

A models with check valve makes it possible to obtain a free flow in the direction opposite that of the controlled flow without respect to the input current.



EFG/EFCG-02-*-31/3190

EFG/EFCG-03-*-26/2690



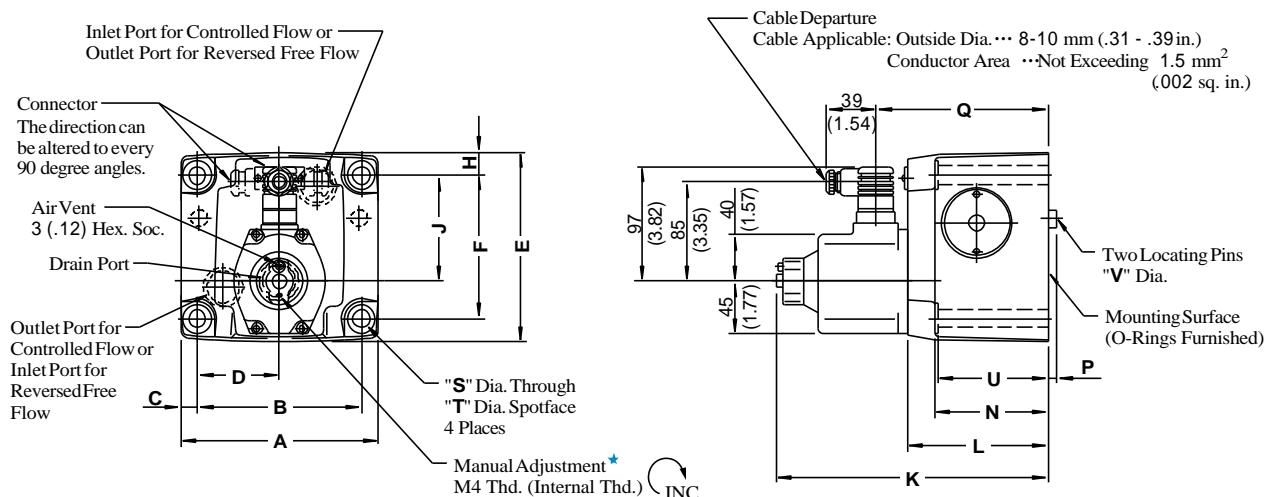
★ Manual adjustment can be done by screwing for example an M4×20 L screw in the M4 thread or pushing in a rod etc. there.

Model Numbers	Dimensions mm (Inches)															U
	A	B	C	D	E	F	H	J	K	L	N	P	Q	S	T	
EF* G-02	96 (3.78)	76.2 (3.00)	9.9 (.39)	38.1 (1.50)	106 (4.17)	82.6 (3.25)	11.7 (.46)	46.3 (1.82)	195 (7.68)	81 (3.19)	66 (2.60)	108 (4.25)	8.8 (.35)	14 (.55)	65 (2.56)	1
EF* G-03	125 (4.92)	101.6 (4.00)	11.7 (.46)	50.8 (2.00)	130 (5.12)	101.6 (4.00)	14.2 (.56)	61.8 (2.43)	212 (8.35)	98 (3.86)	85 (3.35)	125 (4.92)	11 (.43)	17.5 (.69)	84 (3.31)	2

EFG/EFCG-06-250-22/2290

EFG/EFCG-10-500-11/1190

**DIMENSIONS IN
MILLIMETRES (INCHES)**

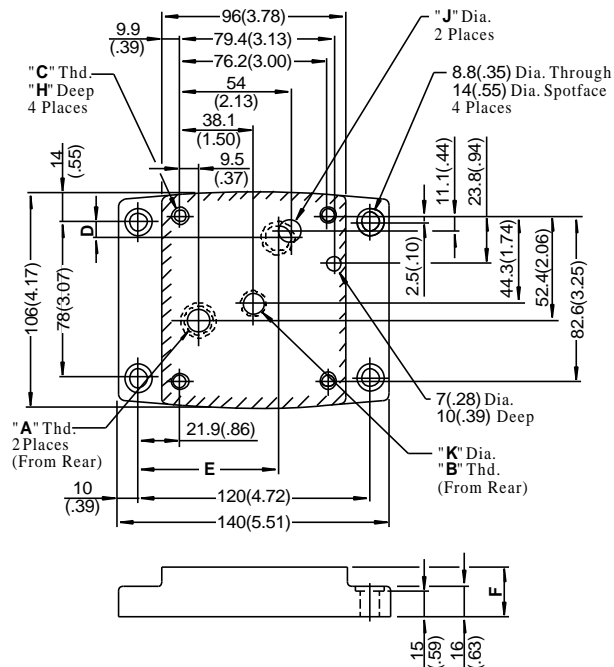


★ Manual adjustment can be done by screwing for example an M4×20 L screw in the M4 thread or pushing in a rod etc. there.

Model Numbers	Dimensions mm (Inches)																
	A	B	C	D	E	F	H	J	K	L	N	P	Q	S	T	U	V
EF*G-06	180 (7.09)	146.1 (5.75)	17 (.67)	73.1 (2.88)	174 (6.85)	133.4 (5.25)	20.3 (.80)	99 (3.90)	244 (9.61)	130 (5.12)	105 (4.13)	7 (.28)	157 (6.18)	17.5 (.69)	26 (1.02)	103.5 (4.07)	16 (.63)
EF*G-10	244 (9.61)	196.9 (7.75)	23.5 (.93)	98.5 (3.88)	228 (8.98)	177.8 (7.00)	25 (.98)	144.5 (5.69)	274 (10.79)	160 (6.30)	137 (5.39)	10 (.39)	187 (7.36)	21.5 (.85)	32 (1.26)	135 (5.31)	18 (.71)

■ Sub-plate

EFGM-02X/02Y-20/2080/2090

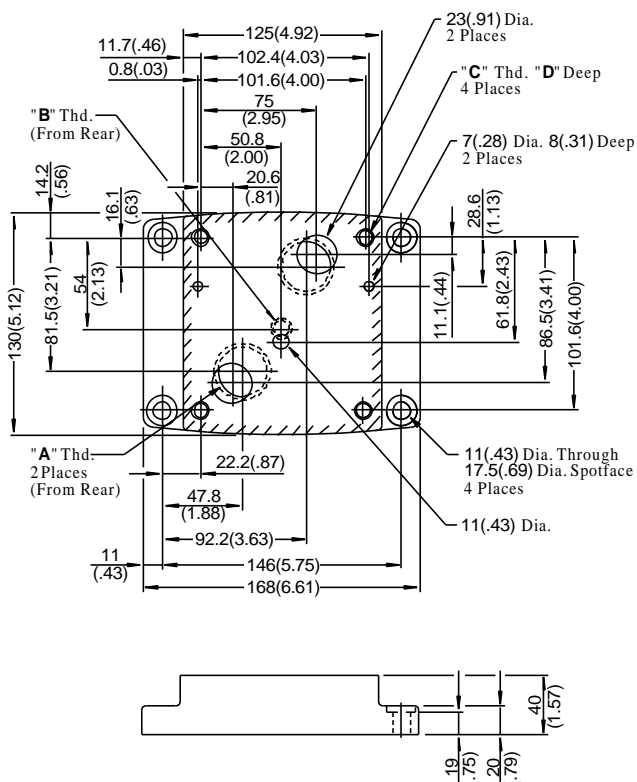


Sub-plate Model Numbers	Thread Size		
	"A" Thd.	"B" Thd.	"C" Thd.
EFGM-02X-20	Rc 3/8	Rc 1/4	M8
EFGM-02Y-20	Rc 1/2		
EFGM-02X-2080	3/8BSP.F	1/4BSP.F	
EFGM-02Y-2080	1/2BSP.F		
EFGM-02X-2090	3/8NPT	1/4 NPT	5/16-18 UNC
EFGM-02Y-2090	1/2 NPT		

Sub-plate Model Numbers	Dimensions mm (Inches)					
	D	E	F	H	J	K
EFGM-02X-20	8.6 (.34)	75.9 (2.99)	25 (.98)	14 (.55)	14 (.55)	11 (.43)
EFGM-02Y-20	11.5 (.45)	72.9 (2.87)	35 (1.38)		15.2 (.60)	11.7 (.46)
EFGM-02X-2080	8.6 (.34)	75.9 (2.99)	25 (.98)		15.2 (.60)	11.7 (.46)
EFGM-02Y-2080	11.5 (.45)	72.9 (2.87)	35 (1.38)		15 (.59)	
EFGM-02X-2090	8.6 (.34)	75.9 (2.99)	25 (.98)	18 (.17)	14 (.55)	11 (.43)
EFGM-02Y-2090	11.5 (.45)	72.9 (2.87)	35 (1.38)			

DIMENSIONS IN
MILLIMETRES (INCHES)

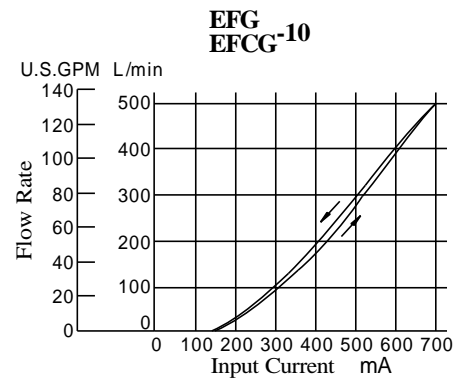
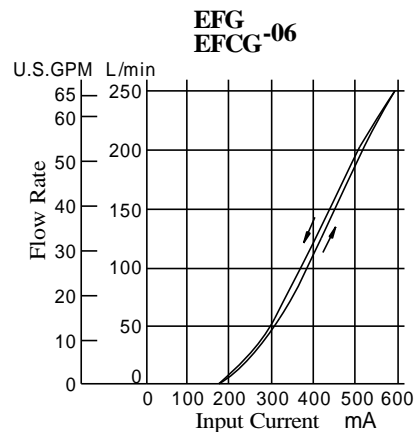
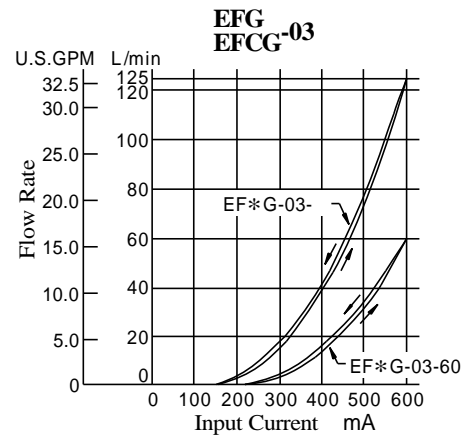
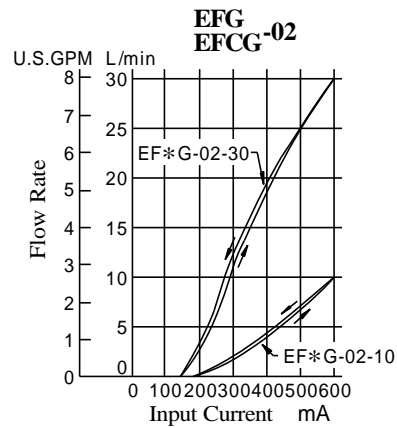
EFGM-03Y/03Z-20/2080/2090



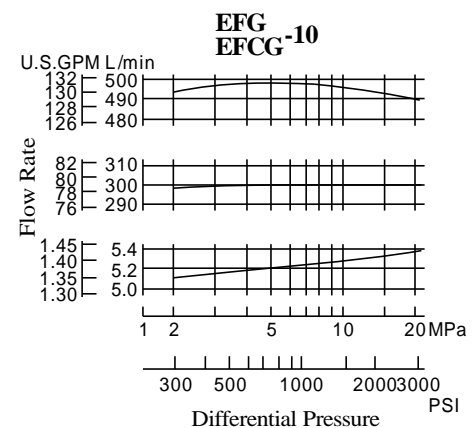
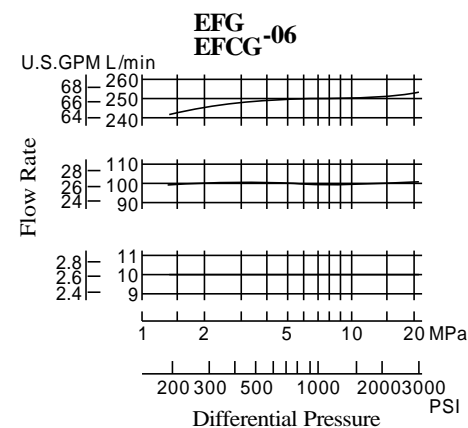
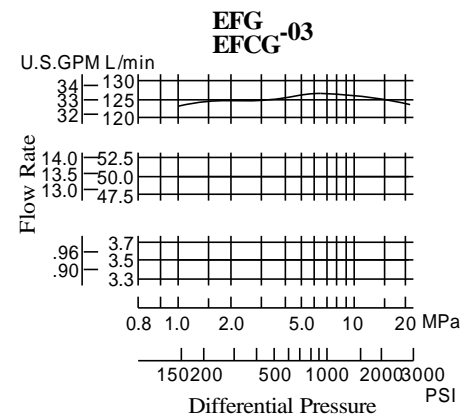
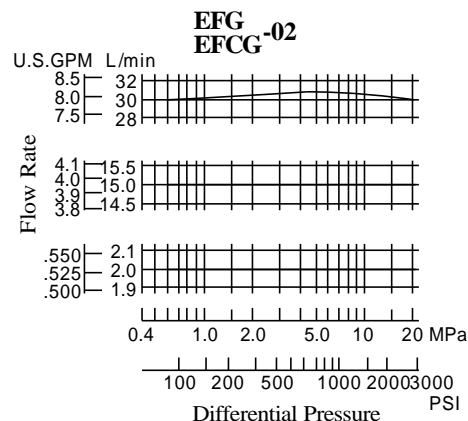
Sub-plate Model Numbers	Thread Size			D mm(in.)
	"A" Thd.	"B" Thd.	"C" Thd.	
EFGM-03Y-20	Rc 3/4	Rc 1/4	M10	18 (.71)
EFGM-03Z-20	Rc 1			
EFGM-03Y-2080	3/4BSP.F	1/4BSP.F		
EFGM-03Z-2080	1BSP.F			
EFGM-03Y-2090	3/4NPT	1/4 NPT	3/8-16 UNC	21 (.83)
EFGM-03Z-2090	1 NPT			

Typical Performance Characteristics

Input Current vs. Flow



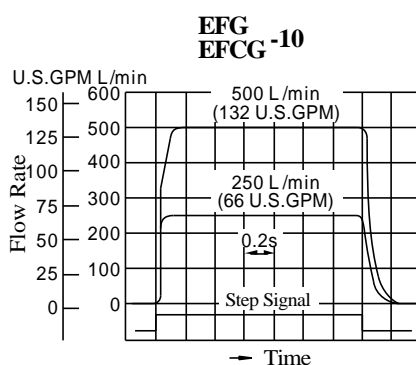
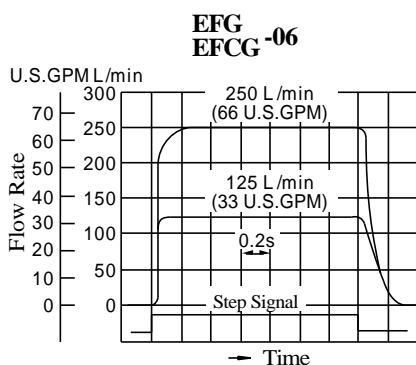
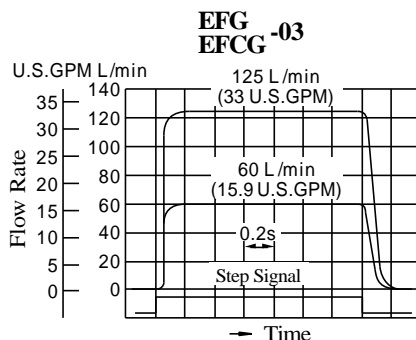
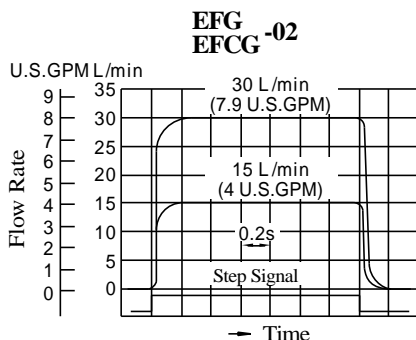
Differential Pressure vs. Metred Flow



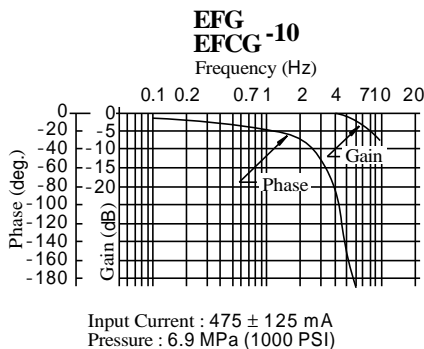
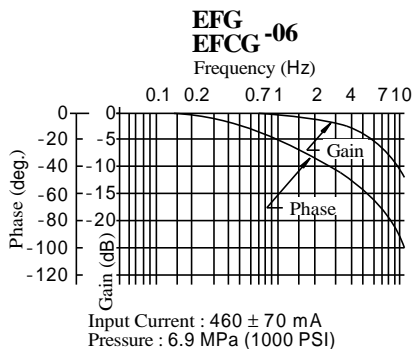
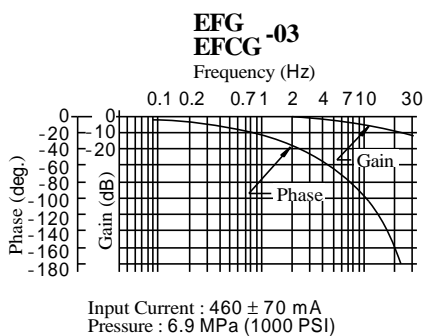
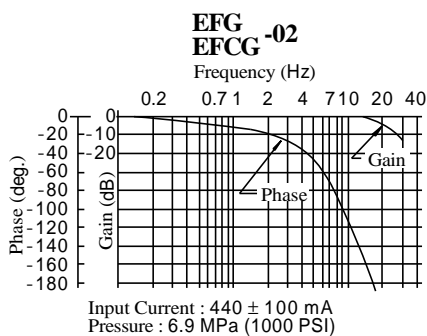
Typical Performance Characteristics

Step Response

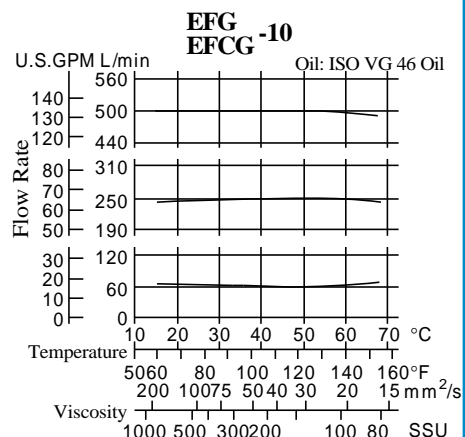
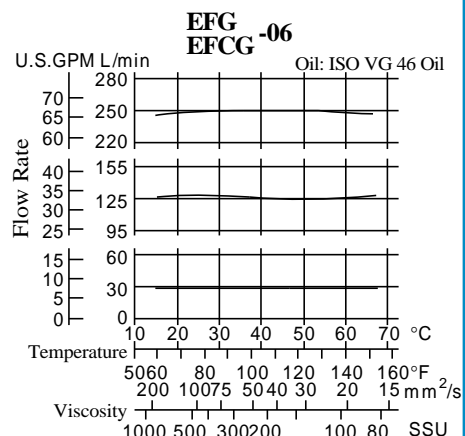
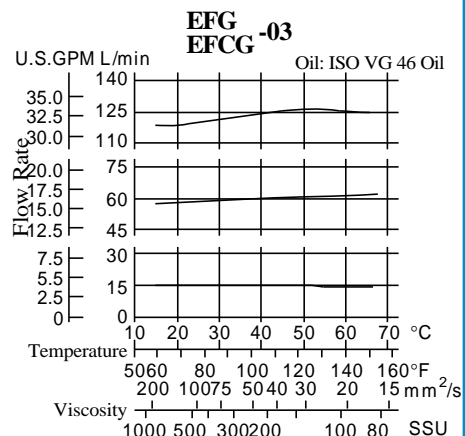
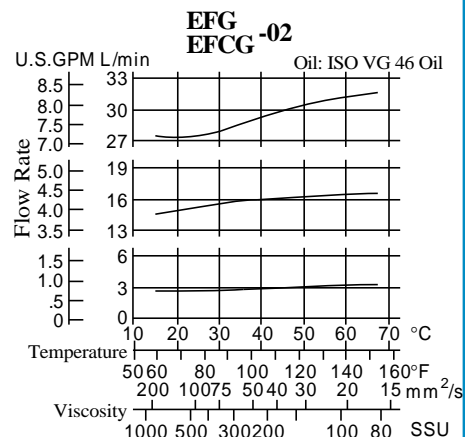
These characteristics have been obtained by measuring on each valve.
Therefore, they may vary according to a hydraulic circuit to be used.



Frequency Response



Viscosity vs. Flow

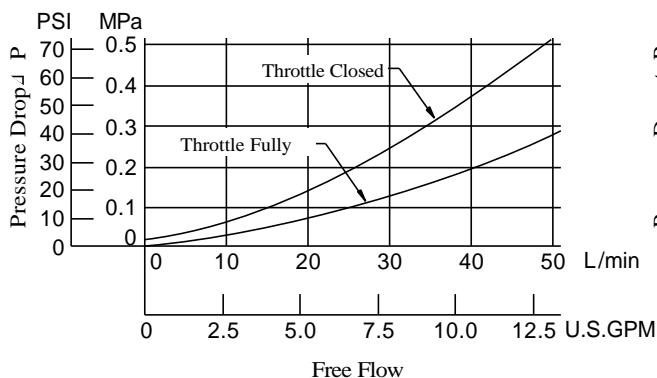


Typical Performance Characteristics

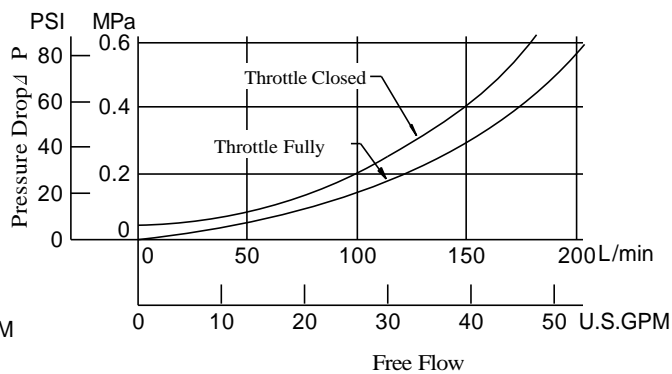
■ Pressure Drop for Reversed Free Flow (Only for "EFCG" Models)

Oil Viscosity: 35 mm²/s (164 SSU)
Specific Gravity: 0.850

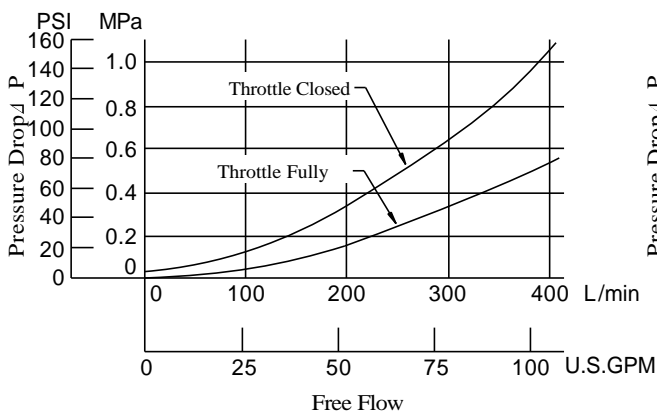
EFCG-02



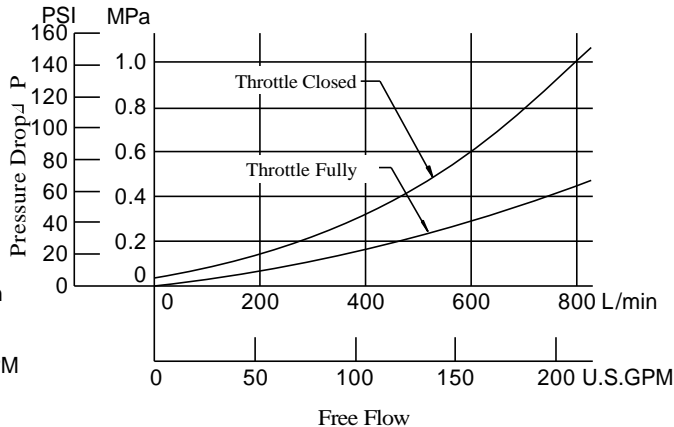
EFCG-03



EFCG-06



EFCG-10



● For any other viscosity, multiply the factors in the table below.

Viscosity	mm ² /s	20	40	60	80	100
	SSU	98	186	278	371	464
Factor		0.87	1.03	1.14	1.23	1.30

● For any other specific gravity (G'), the pressure drop (P') may be obtained from the formula below.
 $\Delta P' = \Delta P (G'/0.850)$