



PROPORTIONAL ELECTRO-HYDRAULIC CONTROLS

Valve Type	Maximum Operating Pressure MPa (PSI)	Maximum Flow		Catalogue No.
		U.S.GPM 50 100 200	L/min 200 300 500 1000	
EH Series	Pilot Relief Valves	24.5 (3550)	EHDG-	
	Relief Valves	24.5 (3550)	EHBG 03 06 10	
	Reducing & Relieving Valves	24.5 (3550)	EHRBG 06 10	
	Flow Control (& Check)Valves	24.5 (3550)	EHFG/EHFCG 03 06	Pub. EC-1301
	Flow Control & Relief Valves	24.5 (3550)	EHFBG 03 06 10	
	Directional & Flow Cont.Valves	24.5 (3550)	EHDG 01 03	
	High Response Type Directional & Flow Cont.Valves	15.7 (2275)	EHDG 04 06	
E Series	Pilot Relief Valves	24.5 (3550)	EDG-01	
	Relief Valves	24.5 (3550)	EBG 03 06 10	Pub. EC-1302
	Reducing & Relieving Valves	24.5 (3550)	ERBG 06 10	
	Flow Control (& Check)Valves	20.6 (3000)	EFG/EFCG (40Ω Series) 02 03 06 10	
		24.5 (3550)	EFG/EFCG (10Ω Series) 03 06	
	Flow Control & Relief Valves	24.5 (3550)	EFBG (40Ω-10Ω Series) 03 06 10	Pub. EC-1303
			EFBG (10Ω-10Ω Series) 03 06 10	
EFBG (High Flow Series) 03 06				
Directional & Flow Cont.Valves	24.5 (3550)	EDFHG 03 04 06	Pub. EC-1304	
Power Amplifiers/Setting Adjustors	—	—	Pub. EC-1305	



**E SERIES
PROPORTIONAL FLOW CONTROLS**
Flow Control / Flow Control and Check /
Flow Control and Relief

PROPORTIONAL
CONTROLS

General Information

Up to 24.5 MPa (3550 PSI), 500 L/min (132 U.S.GPM)

■ Flow Control / Flow Control and Check Valves

These valves vary their output flow proportionally to an input current, therefore, by controlling the input current from the power amplifier, the flow rate in the system can be continuously, remotely and optionally regulated. Furthermore, as the valves have the functions of pressure and temperature compensation, the flow rate is not affected by the variation in the pressure (load) and temperature (viscosity of hydraulic fluids).

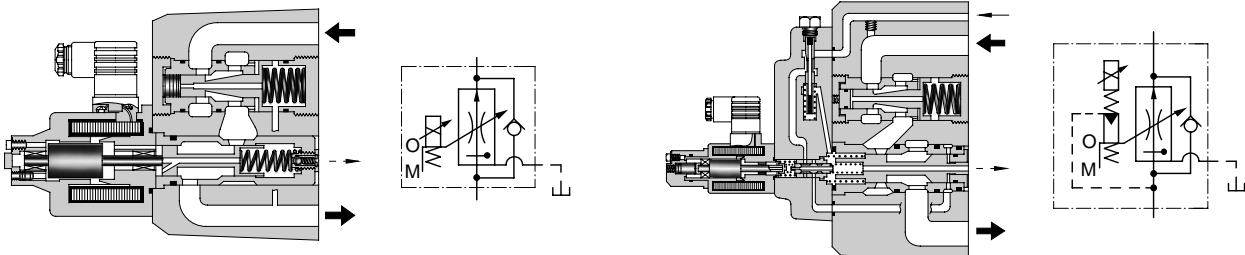
These valves are optimal for such a usage where the start-up, stop and speed change of the actuator are required to be done without shocks. The valves are used together with the applicable power amplifiers.

● 40 Ω Series Page 4

A direct-acting model designed to control the throttle with a high-power solenoid is employed, providing a high strength against contamination in oil and an outstanding reliability.

● 10 Ω Series Page 14

A hydraulic pilot amplification model is employed, achieving a small hysteresis with a small solenoid.



■ Flow Control and Relief Valves

These valves control the pump pressure effectively by responding to a small pressure difference against the load pressure. Therefore, it can be said that they are energy-saving metre-in type flow control valves which can be operated at a low power consumption. Furthermore, as the valves have temperature compensator, the stable control of the flow rate is possible irrespective of change in the oil temperature.

● 40 Ω - 10 Ω Series Page 22

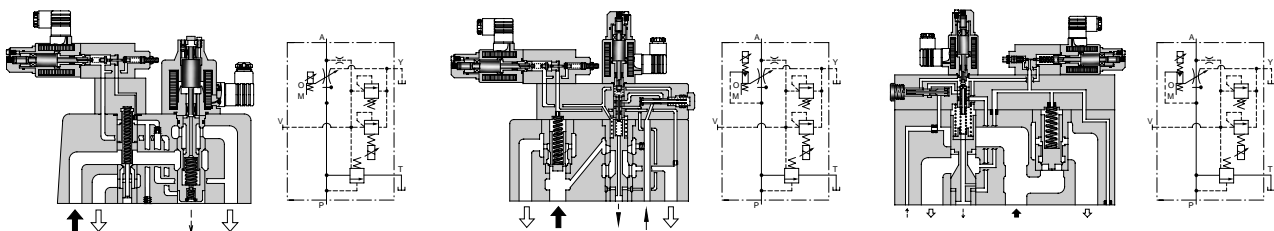
For flow control, a direct-acting model using a high-power solenoid is employed, providing an outstanding reliability.

● 10 Ω - 10 Ω Series Page 33

For flow control, a hydraulic pilot amplification model is employed, providing a small hysteresis.

● High Flow Series Page 44

Parts have been improved, doubling the maximum controlled flow, which enables the equipment to be compacted.



■ Hydraulic Fluids

● Fluid Types

Any type of hydraulic fluid listed in the table below can be used.

Petroleum Base Oils	Use fluids equivalent to ISO VG 32 or VG 46.
Synthetic Fluids	Use phosphate ester or polyol ester fluids. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used.
Water-Containing Fluids	Use water-glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your Yuken representatives in advance.

● Recommended Fluid Viscosity and Temperature

Use hydraulic fluids which satisfy the both recommended viscosity and oil temperatures given in the table below.

Name	Viscosity	Temperature
Flow Control Valves	20 - 200 mm ² /s (98 - 900 SSU)	-15 - +70°C (5 - 160°F)
Flow Control and Check Valves		
Flow Control and Relief Valves		

● Control of Contamination

Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valve. Please maintain the degree of contamination within NAS 1638-Grade 11. Use 20 μm or finer line filter.

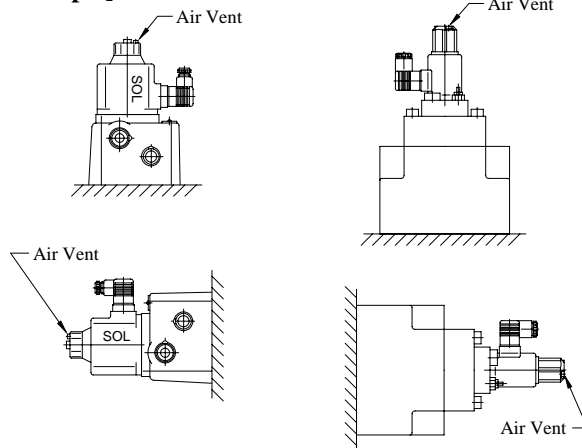
Instructions

■ Mounting Positioning Orientation

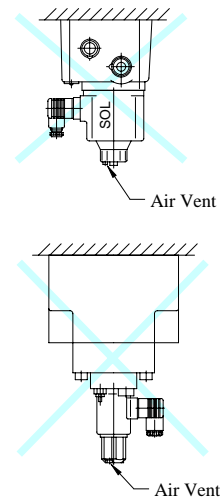
Be sure that the air vent faces up. The air vent position can be changed as desired.

If the pressure control solenoid of the EFBG valve is mounted vertically, the minimum adjustment pressure is 2 MPa (290 PSI) or higher.

[Good example]



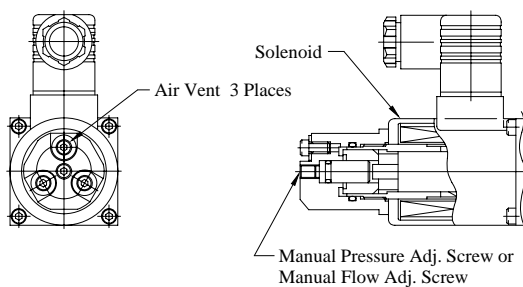
[Bad example]



■ Air Bleeding

To ensure stable control, bleed the air from solenoid completely and fill its iron core with oil.

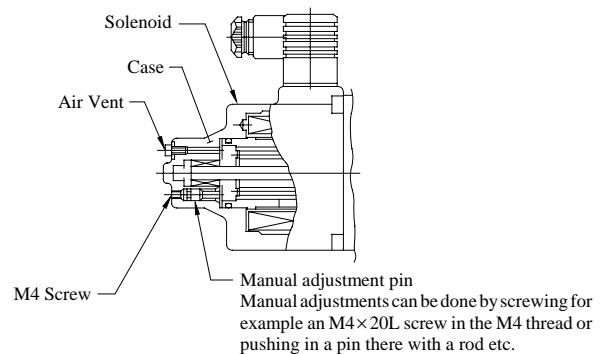
Bleeding can be done by slowly loosening an air vent. The 10Ω series solenoid has three air vents. Choose one that appears most helpful (see the figure below).



10Ω Series Solenoid

■ Manual Adjustment Screw

When initial adjustments are to be made or when no current is supplied to the valve due to electrical failure or other problem, turn the manual adjustment screw to temporarily set the valve pressure and flow rate. In that case, when turn the manual adjustment screw clockwise, the valve pressure rises and flow increase. Under normal conditions, however, this screw must be kept in its original position (see the figure below).



40Ω Series Solenoid

■ Tank and Drain Piping

The tank-line back pressure and drain back pressure directly affect the minimum adjustment pressure or flow adjustment valve main spool operating force. Therefore, do not connect the tank or drain pipes to other lines, but connect them directly to the reservoir maintaining the back pressure as low as possible. Be sure that the tank and drain pipe ends are immersed in fluid.

■ Hysteresis and Repeatability Value Indications

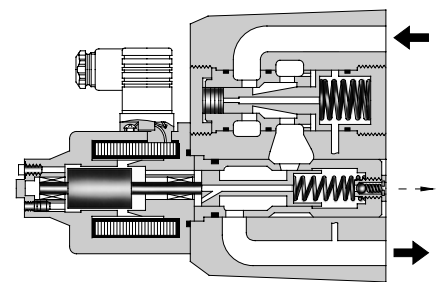
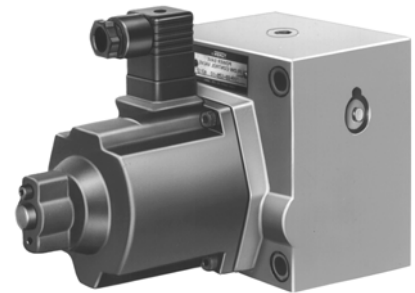
The hysteresis and repeatability values indicated in the specifications for each control valve are determined under the following conditions:

- Hysteresis Value: Obtained when Yuken's applicable power amplifier is used.
- Repeatability Value: Obtained when Yuken's applicable power amplifier is used under the same conditions.

Specifications / Model Number Designation

■ Specifications

Model No.	EFG EFCG-02-10	EFG EFCG-03-60	EFG EFCG-06-250	EFG EFCG-10-500
Description				
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	600 mA	600 mA	600 mA	700 mA
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.

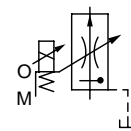
■ Model Number Designation

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 EFC: Proportional Electro-Hydraulic Flow Control and Check 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	
		06	250 : 250 (66)	22	
		10	500 : 500 (132)	11	

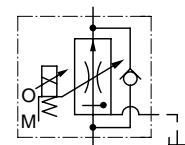
Note: If you are going to use the model with pressure compensator stroke adjustment screw, consult your Yuken representative in advance.

★ 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

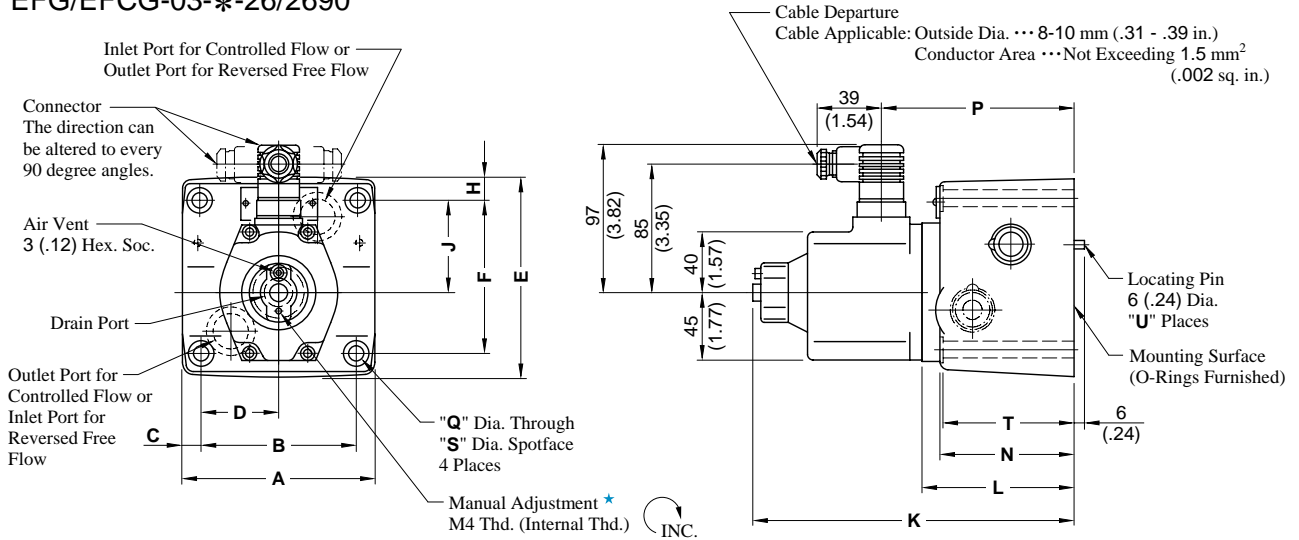
A models with check valve makes it possible to obtain a free flow in the direction opposite that of the controlled flow without respect to the input current.



Installation Drawing

EFG/EF CG-02-∗-31/3190

EFG/EF CG-03-∗-26/2690



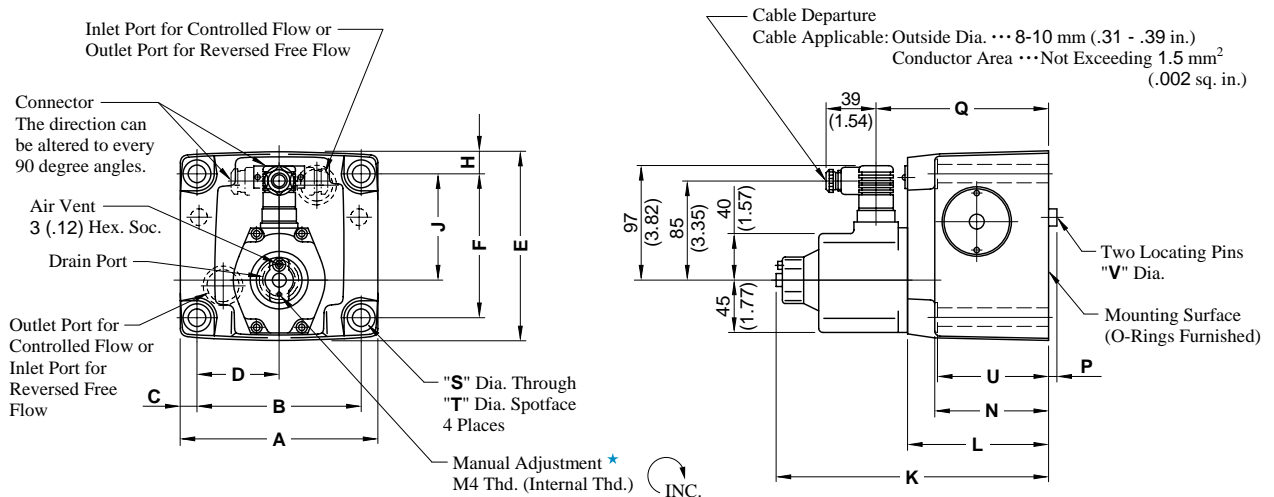
★ Manual adjustment can be done by screwing for example an M4×20 L screw in the M4 thread or pushing in a rod etc. there.

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/EF CG-06-250-22/2290

EFG/EF CG-10-500-11/1190

**DIMENSIONS IN
MILLIMETRES (INCHES)**

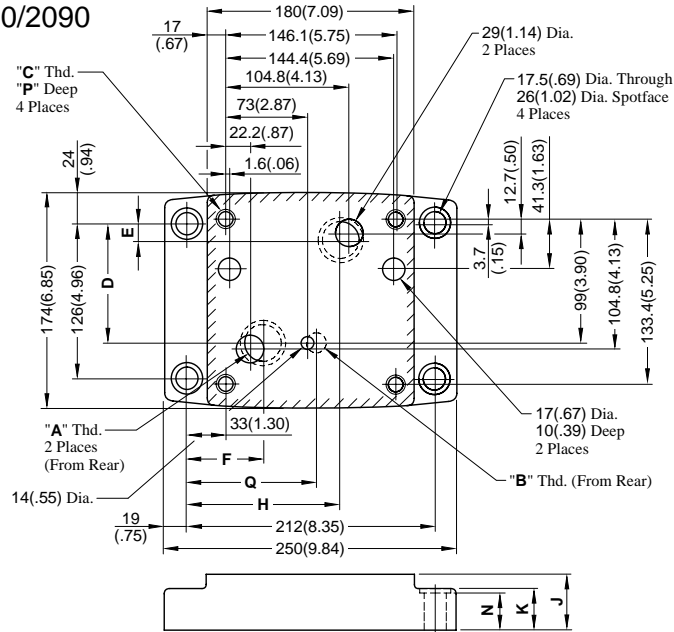


★ Manual adjustment can be done by screwing for example an M4×20 L screw in the M4 thread or pushing in a rod etc. there.

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 (5.93)	10 (.39)	187 (7.36)	21.5 (.85)	32 (1.26)	135 (5.31)	18 (.71)

Installation Drawing

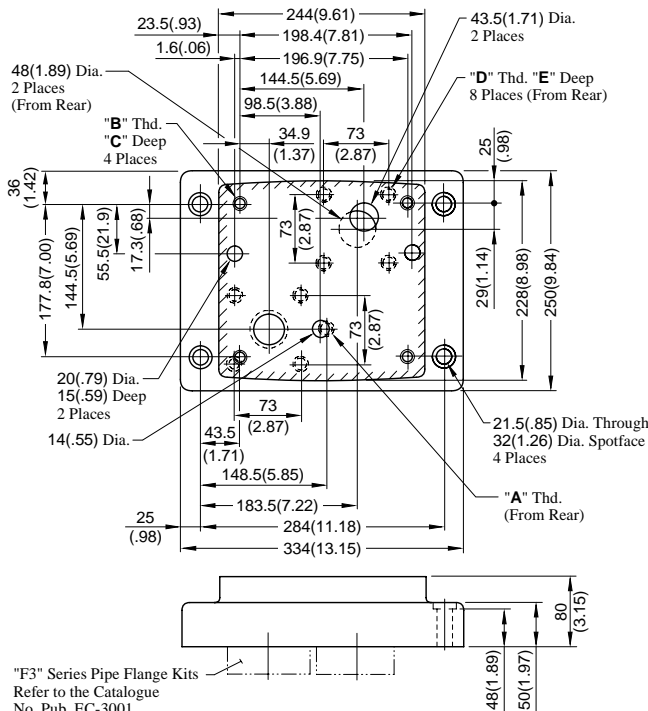
EFGM-06X/06Y-20/2080/2090



Sub-plate Model Numbers	Thread Size			Dimensions mm (Inches)										
	"A" Thd.	"B" Thd.	"C" Thd.	D	E	F	H	J	K	N	P	Q	S	
EFGM-06X-20	Rc 1	Rc 3/8	M16	101.1 (3.98)	14.3 (.56)	55.2 (2.17)	137.8 (5.43)	45 (1.77)	35 (1.38)	34 (1.34)	30 (1.18)	106 (4.17)	14 (.55)	
EFGM-06Y-20	Rc 1-1/4			95.3 (3.75)	19.3 (.76)	67 (2.64)	132 (5.20)	60 (2.36)	40 (1.57)	39 (1.54)				
EFGM-06X-2080	1 BSP.F	3/8 BSP.F		101.1 (3.98)	14.3 (.56)	55.2 (2.17)	137.8 (5.43)	45 (1.77)	35 (1.38)	34 (1.34)		35 (1.38)	106 (4.17)	14 (.55)
EFGM-06Y-2080	1-1/4 BSP.F			95.3 (3.75)	19.3 (.76)	67 (2.64)	132 (5.20)	60 (2.36)	40 (1.57)	39 (1.54)				
EFGM-06X-2090	1 NPT	3/8 NPT		5/8-11 UNC	101.1 (3.98)	14.3 (.56)	55.2 (2.17)	137.8 (5.43)	45 (1.77)	35 (1.38)	34 (1.34)	35 (1.38)	106 (4.17)	14 (.55)
EFGM-06Y-2090	1-1/4 NPT				95.3 (3.75)	19.3 (.76)	67 (2.64)	132 (5.20)	60 (2.36)	40 (1.57)	39 (1.54)			

EFGM-10Y-10/1080/1090

DIMENSIONS IN MILLIMETRES (INCHES)



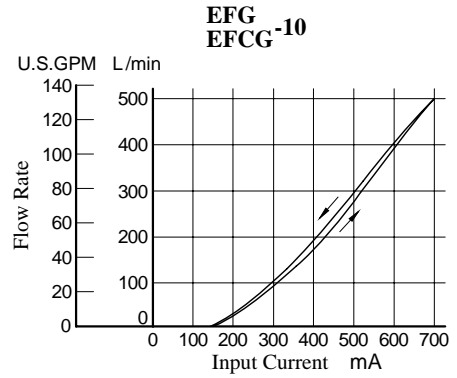
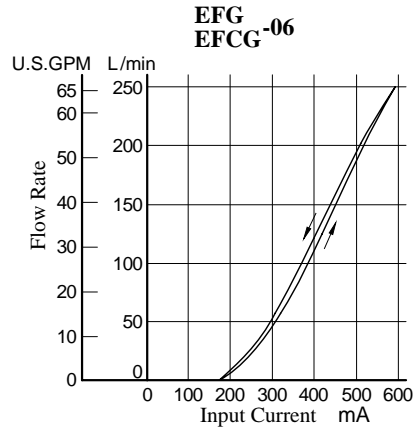
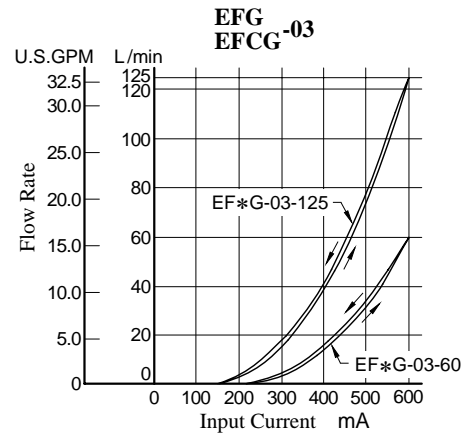
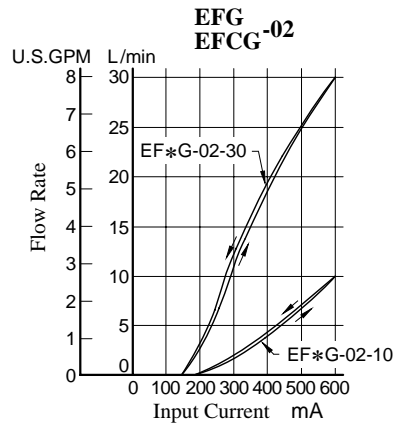
Sub-plate Model Numbers	Thread Size		
	"A" Thd.	"B" Thd.	"C" Thd.
EFGM-10Y-10	Rc 3/8	M20	M16
EFGM-10Y-1080	3/8 BSP.F		
EFGM-10Y-1090	3/8 NPT	3/4-10 UNC	5/8-11 UNC

Sub-plate Model Numbers	mm (Inches)	
	D	E
EFGM-10Y-10	30 (1.18)	30 (1.18)
EFGM-10Y-1080	30 (1.18)	30 (1.18)
EFGM-10Y-1090	34 (1.34)	35 (1.38)

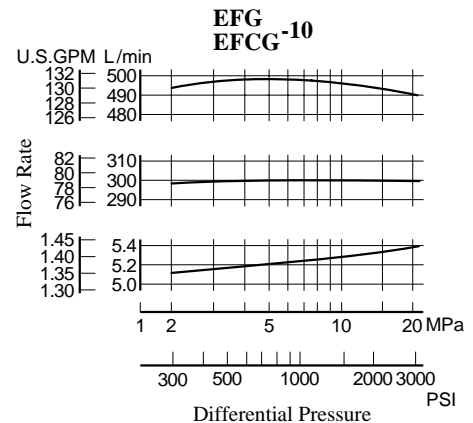
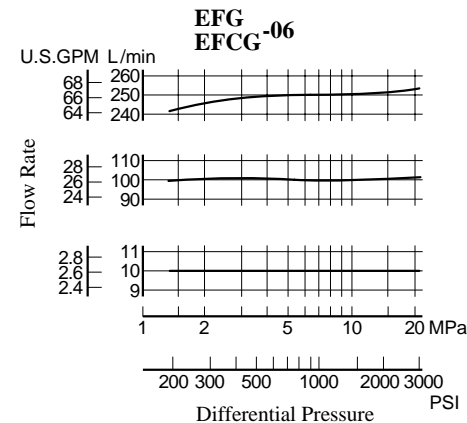
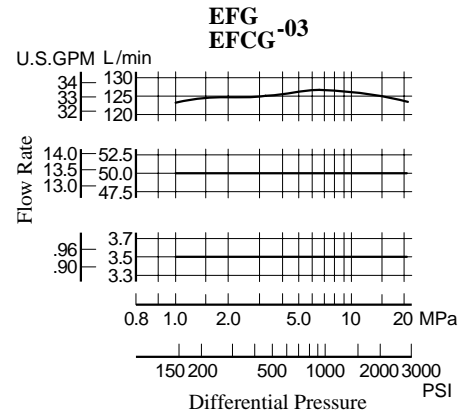
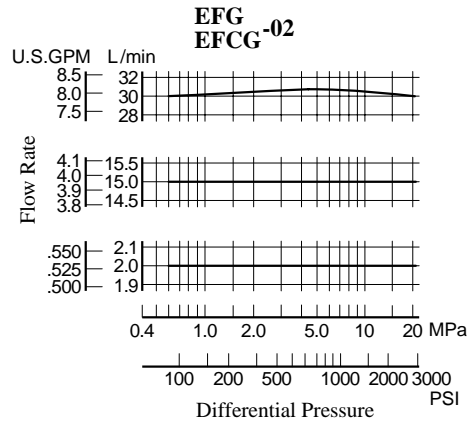
"F3" Series Pipe Flange Kits
Refer to the Catalogue
No. Pub. EC-3001.

Typical Performance Characteristics

Input Current vs. Flow



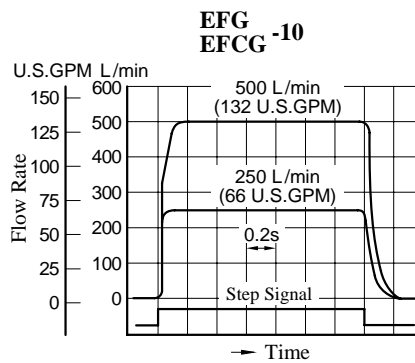
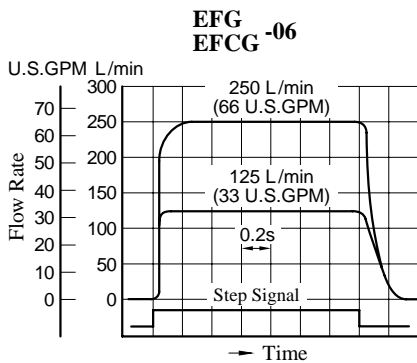
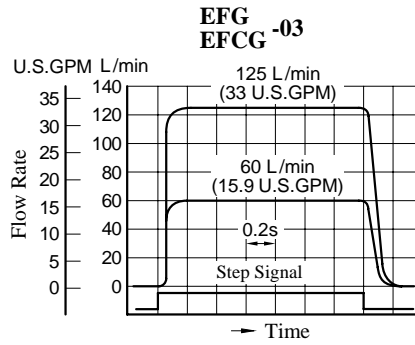
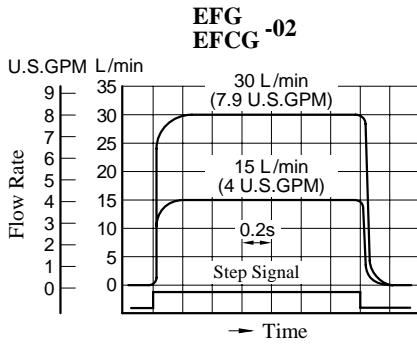
Differential Pressure vs. Metred Flow



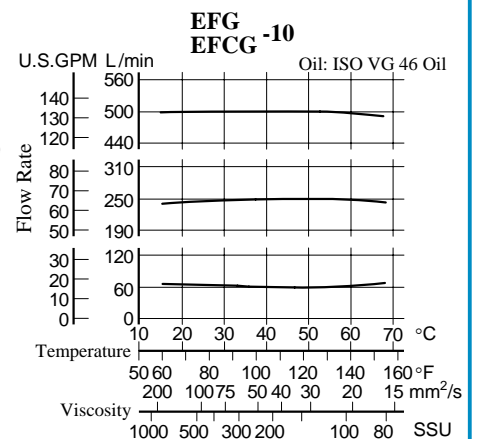
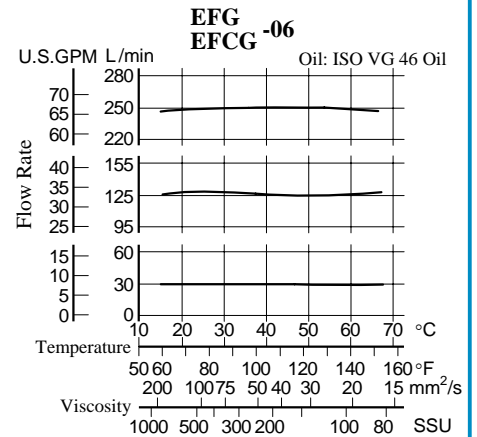
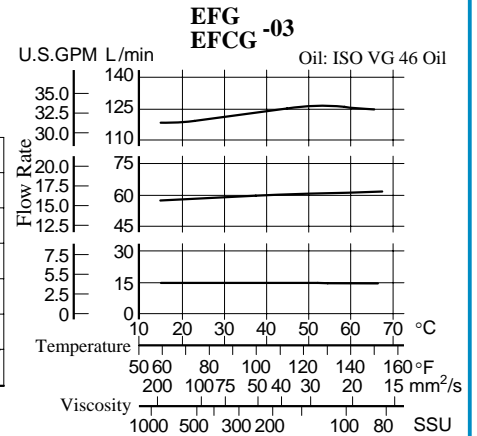
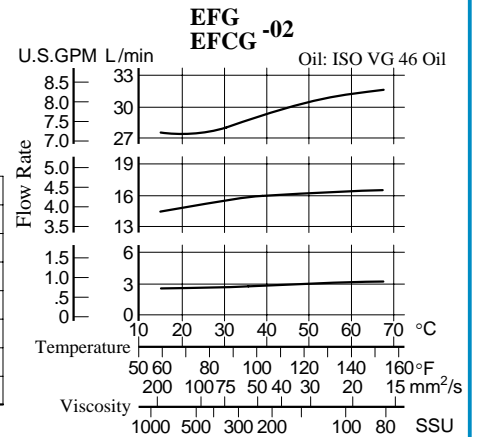
Typical Performance Characteristics

Step Response

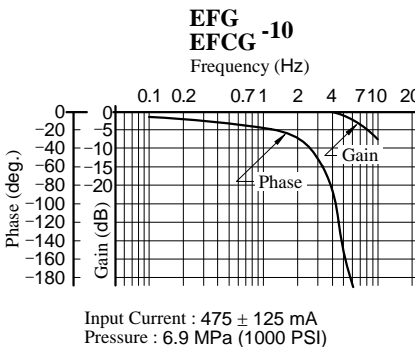
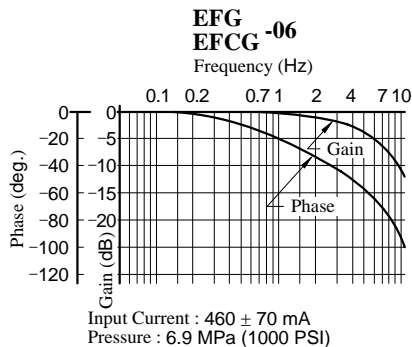
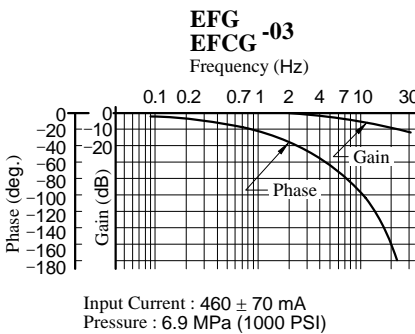
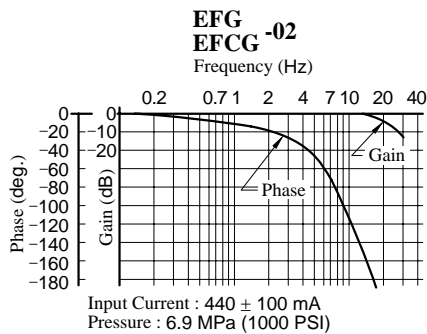
These characteristics have been obtained by measuring on each valve. Therefore, they may vary according to a hydraulic circuit to be used.



Viscosity vs. Flow



Frequency Response

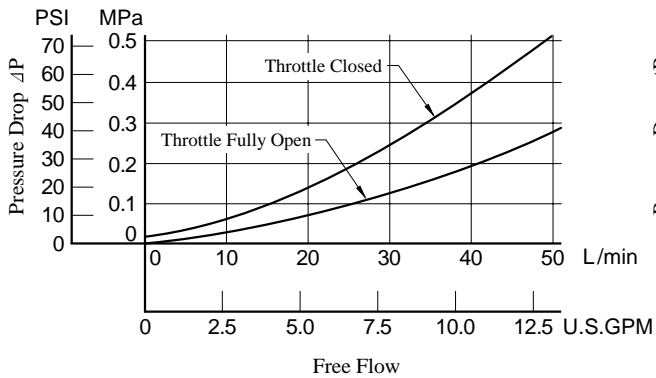


Typical Performance Characteristics

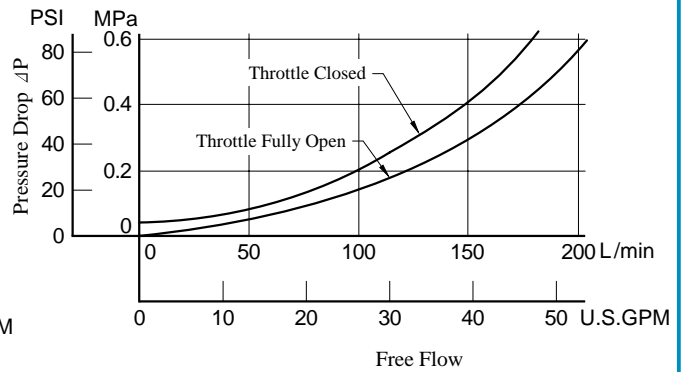
■ Pressure Drop for Reversed Free Flow (Only for "EFCG" Models)

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

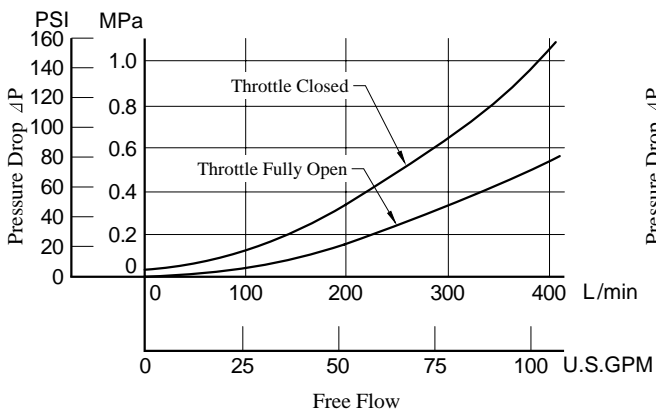
EFCG-02



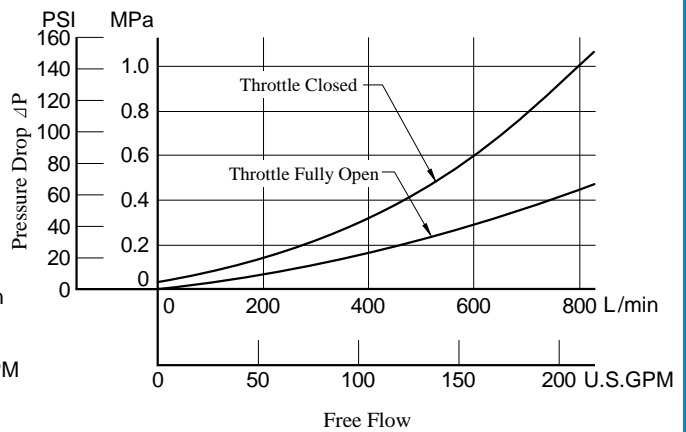
EFCG-03



EFCG-06



EFCG-10



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

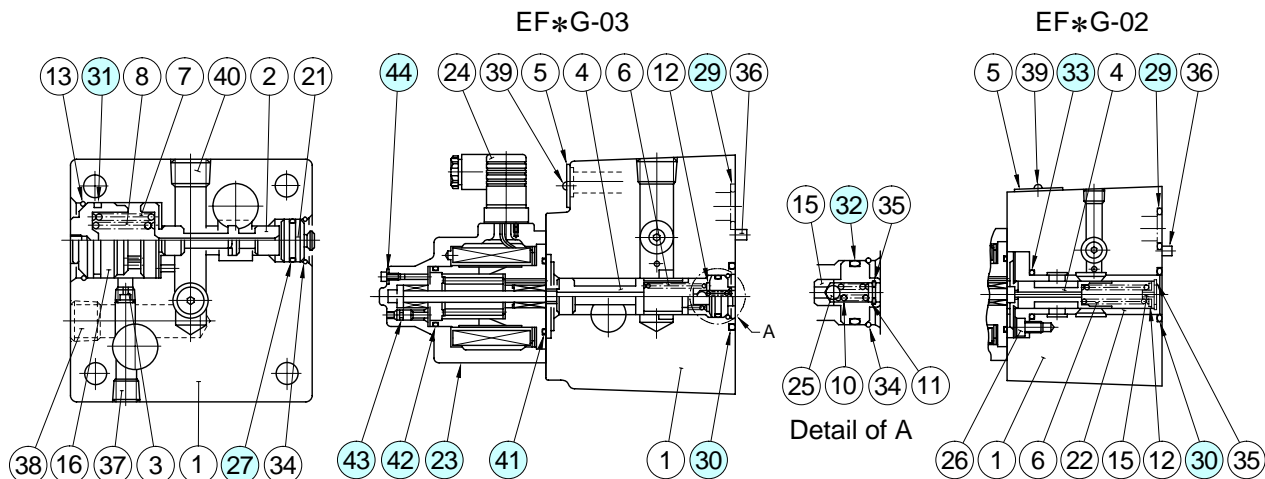
Viscosity	mm ² /s	20	40	60	80	100
	SSU	98	186	278	371	464
Factor		0.87	1.03	1.14	1.23	1.30

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

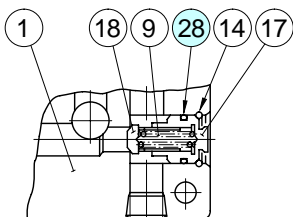


Spare Parts List

EFG/EFCG-02-*-31/3190
EFG/EFCG-03-*-26/2690



With Check Valve (EFCG-02, 03)



CAUTION

When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.

List of Seals and Solenoids Ass'y

Item	Name of Parts	Part Numbers		Qty.
		EF*G-02	EF*G-03	
23	Solenoid Ass'y	E321-45-20	E321-45-20	1
27	O-Ring	SO-NB-P18	SO-NB-P18	1
28	O-Ring	SO-NB-P10A	SO-NB-P21	1
29	O-Ring	SO-NB-P18	SO-NB-P28	2
30	O-Ring	SO-NB-P22	SO-NB-P31	1
31	O-Ring	SO-NB-G25	SO-NB-G35	1
32	O-Ring	—	SO-NB-P18	1
33	O-Ring	SO-NB-P22	—	1
41	O-Ring	SO-NB-G45	SO-NB-G45	1
42	O-Ring	SO-NB-G35	SO-NB-G35	1
43	O-Ring	SO-NA-P4	SO-NA-P4	1
44	Fastener Seal	SG-FCF-4	SG-FCF-4	1

Note: O-rings (Item 41, 42, 43) and the fastener seal (Item 44) are included in the solenoid assembly.

Note: The connector assembly GDM-211-B-11 (Item 24) is not included in the solenoid assembly.

Note: When ordering seals, please specify the seal kit number from the table right.

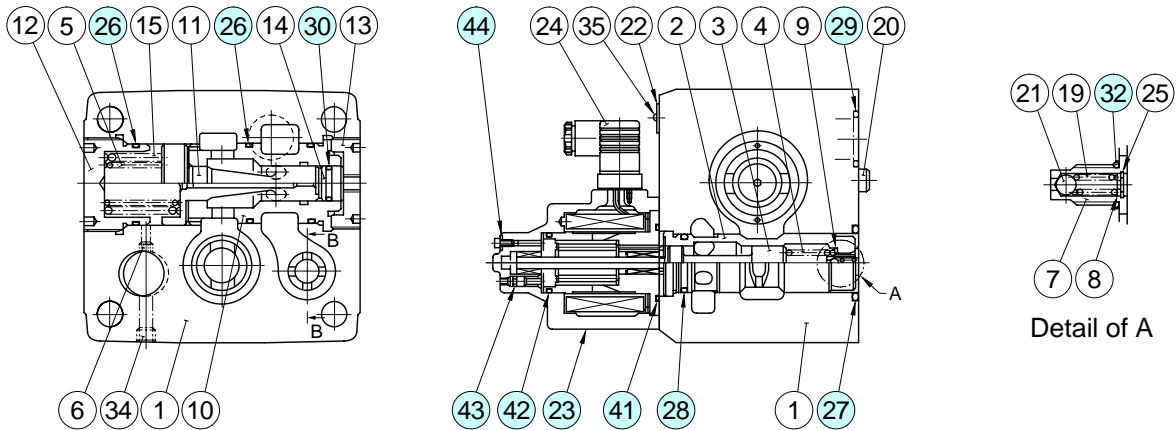
List of Seal Kits

Model Numbers	Seal Kit Numbers
EFG-02-*-31*	KS-EFG-02-31
EFCG-02-*-31*	KS-EFCG-02-31
EFG-03-*-26*	KS-EFG-03-26
EFCG-03-*-26*	KS-EFCG-03-26

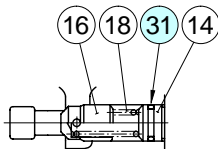
Spare Parts List

EFG/EFCG-06-250-22/2290

EFG/EFCG-10-500-11/1190



With Check Valve (EFCG-06, 10)



Section B-B

CAUTION

When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.

List of Seals and Solenoid Ass'y

Item	Name of Parts	Part Numbers		Qty.
		EF*G-06	EF*G-10	
23	Solenoid Ass'y	E321-45-20	E321-45-20	1
26	O-Ring	SO-NB-P50	SO-NB-G75	3
27	O-Ring	SO-NB-P44	SO-NB-G60	1
28	O-Ring	SO-NB-P34	SO-NB-P50	1
29	O-Ring	SO-NB-P32	SO-NB-P48	2
30	O-Ring	SO-NB-P21	SO-NB-P34	1
31	O-Ring	SO-NB-P21	SO-NB-P26	1
32	O-Ring	SO-NA-P10	SO-NA-P10	1
41	O-Ring	SO-NB-G45	SO-NB-G45	1
42	O-Ring	SO-NB-G35	SO-NB-G35	1
43	O-Ring	SO-NA-P4	SO-NA-P4	1
44	Fastener Seal	SG-FCF-4	SG-FCF-4	1

Note: O-rings (Item 41, 42, 43) and the fastener seal (Item 44) are included in the solenoid assembly.

Note: The connector assembly GDM-211-B-11 (Item 24) is not included in the solenoid assembly.

Note: When ordering seals, please specify the seal kit number from the table right.

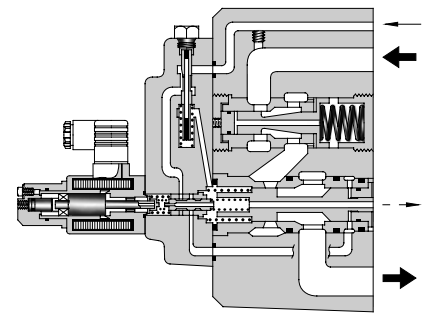
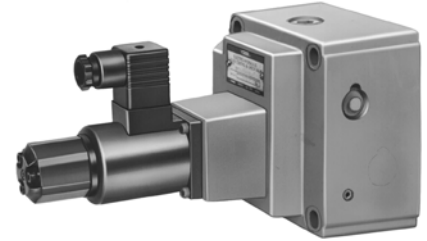
List of Seal Kits

Model Numbers	Seal Kit Numbers
EFG-06-250-22*	KS-EFG-06-22
EFCG-06-250-22*	KS-EFCG-06-22
EFG-10-500-11*	KS-EFG-10-11
EFCG-10-500-11*	KS-EFCG-10-11

Specifications / Model Number Designation

Specifications

Description		Model No. EFG EFCG -03- 60 EFCG -125	EFG EFCG -06-250
Max. Operating Pressure MPa (PSI)		20.6 (3000)	24.5 (3550)
Metred Flow Adj. Range L/min (U.S.GPM)		60: 1-60 (.26-15.9) 125: 1-125 (.26-33)	2.5-250 (.66-66)
Min. Differential Pressure * ¹ MPa (PSI)		1.0 (145)	1.0 (145)
Free Flow (EFCG Models Only) L/min (U.S.GPM)		130 (34.3)	280 (74.0)
Min Pilot Pressure * ² MPa (PSI)		1.0 (145)	1.5 (220)
Pilot Flow L/min (U.S.GPM)	at Normal	0.5 (.13)	1 (.26)
	at Transition	2.6 (.69)	4 (1.06)
Rated Current		780 mA	820 mA
Coil Resistance		10 Ω	10 Ω
Hysteresis		Less than 3%	Less than 3%
Repeatability		Less than 1%	Less than 1%
Approx. Mass	kg (lbs.)	10 (22.1)	25 (55.1)



- ★ 1. Min pressure difference required between inlet and outlet ports to maintain function as pressure compensator.
- ★ 2. The minimum required value for the external pilot type.

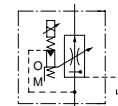
Model Number Designation

EFC	G	-03	-125	-E	-51	*
Series Number	Type of Mounting	Valve Size	Max. Metred Flow L/min (U.S.GPM)	Pilot Connection	Design Number	Design Standards
EF: Proportional Electro-Hydraulic Flow Control Valve	G: Sub-plate Mounting	03	60: 60 (15.9) 125: 125 (33)	None: Internal Pilot	51	Refer to ★
EFC: Proportional Electro-Hydraulic Flow Control and Check Valve		06	250: 250 (66)	E: External Pilot	51	

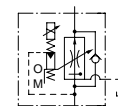
★ Design Standards: None Japanese Standard "JIS" and European Design Standard 90 N. American Design Standard

Graphic Symbols

Internal Pilot

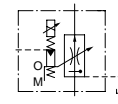


EFG-*

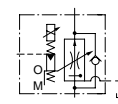


EFCG-*

External Pilot



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-03	M10 × 80 Lg.	3/8-16 UNC × 3-1/4 Lg.	4
EF*G-06	M16 × 130 Lg.	5/8-11 UNC × 5 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-10-* -20

AME-D2-1010-* -10

SK1022-* -*-11

SK1015-11 (For DC power supply)

AMN-D-10 (For DC power supply)

■ 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 ⁻⁰³	EFGM-03Y-30	Rc 3/4	EFGM-03Y-3080	3/4 BSP.F	EFGM-03Y-3090	3/4 NPT	5.7 (12.6)
	EFGM-03Z-30	Rc 1	EFGM-03Z-3080	1 BSP.F	EFGM-03Z-3090	1 NPT	5.6 (12.3)
EFG EFCG ⁻⁰⁶	EFGM-06X-30	Rc 1	EFGM-06X-3080	1 BSP.F	EFGM-06X-3090	1 NPT	12.5 (27.6)
	EFGM-06Y-30	Rc 1-1/4	EFGM-06Y-3080	1-1/4 BSP.F	EFGM-06Y-3090	1-1/4 NPT	16 (35.3)

● 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.

■ Instructions

● Drain Back Pressure

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

● Pilot Type Selection

This valve is constructed so as to operate at a pre-determined pilot pressure. For the 03, a pilot pressure of 1 MPa (145 PSI) or higher is required. For the 06, the requied pilot pressure is 1.5 MPa (220 PSI) or higher. To obtain such a required pilot pressure, select the pilot type according to the circuit examples on the right.

①/②

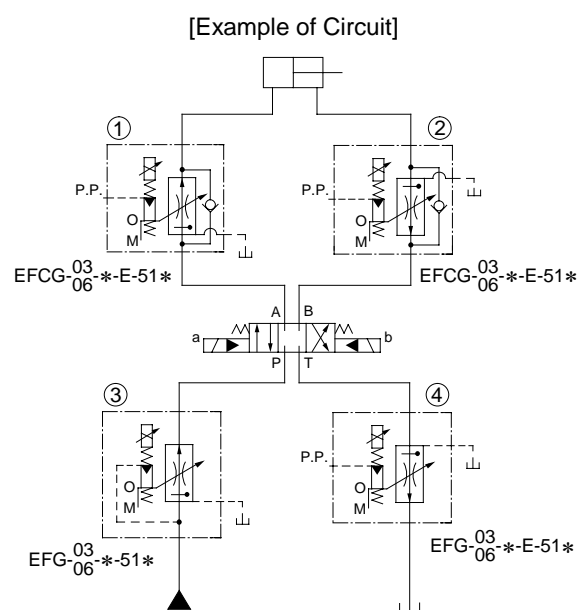
Use the external pilot type (pilot connection code: E) whether a metre-in or metre-out circuit is employed.

③

Use the internal pilot type (pilot connection code: None)

④

Use the external pilot type (pilot connection code: E)



Installation Drawing

