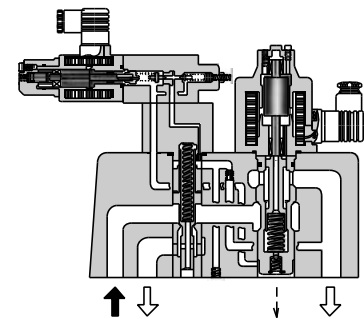


#### Specifications

Model No.		EFBG-03 -125-* -17*	EFBG-06 -250-* -17*	EFBG-10 -500-* -17*
Description				
Max. Operating Pressure MPa (PSI)		24.5 (3550)	24.5 (3550)	24.5 (3550)
Max. Flow L/min (U.S.GPM)		125 (33)	250 (66)	500 (132)
Metred Flow Adjustment Range L/min (U.S.GPM)		1-125 (.26-33)	2.5-250 (.66-66)	5-500 (1.32-132)
Flow Controls	Rated Current	600mA	580mA	700mA
	Coil Resistance	43.5 Ω	43.5 Ω	43.5 Ω
	Differential Pressure MPa (PSI)	0.6 (85)	0.7 (100)	0.9 (130)
	Hysteresis	Less than 7%	Less than 7%	Less than 7%
	Repeatability	Less than 1%	Less than 1%	Less than 1%
Pressure Controls★	Pres. Adj. Range MPa (PSI) ★2	<b>C:</b> 1.4-13.7 (205-2000) <b>H:</b> 1.4-20.6 (205-3000)	<b>C:</b> 1.5-13.7 (220-2000) <b>H:</b> 1.5-20.6 (220-3000)	<b>C:</b> 1.6-13.7 (230-2000) <b>H:</b> 1.6-20.6 (230-3000)
	Rated Current	<b>C:</b> 750mA <b>H:</b> 750 mA	<b>C:</b> 690mA <b>H:</b> 730 mA	<b>C:</b> 690mA <b>H:</b> 690 mA
	Coil Resistance	10 Ω	10 Ω	10 Ω
	Hysteresis	Less than 3%	Less than 3%	Less than 3%
	Repeatability	Less than 1%	Less than 1%	Less than 1%
	Approx. Mass kg (lbs.)	Refer to page 24 to 26		



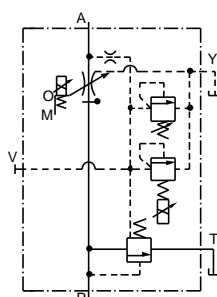
- ★ 1. The specifications for pressure controls are applied to models with proportional pilot relief valve. (Ex. EFBG-03-125-C-\* -17)
- ★ 2. The maximum pressure adjustment range of the models without proportional pilot relief valves is 24.5 MPa (3550 PSI).

#### Model Number Designation

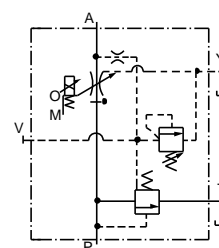
EFB	G	-03	-125	-C	-17	*
Series Number	Type of Mounting	Valve Size	Max. Metred Flow L/min (U.S.GPM)	Proportional Pilot Relief Valve Pressure Adjustment Range	Design Number	Design Standards
<b>EFB:</b> Proportional Electro-Hydraulic Flow Control and Relief Valve	<b>G:</b> Sub-plate Mounting	<b>03</b>	<b>125:</b> 125 (33)	<b>C, H:</b> See Specifications  <b>None:</b> Without Proportional Pilot Relief Valve	<b>17</b>	Refer to ★
		<b>06</b>	<b>250:</b> 250 (66)		<b>17</b>	
		<b>10</b>	<b>500:</b> 500 (132)		<b>17</b>	

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

#### Graphic Symbols



With Proportional Pilot Relief Valve



Without Proportional Pilot Relief Valve

## ■ Attachment

### ● Mounting Bolts

Valve Model Numbers	Socket Head Cap Screw		Qty.
	Japanese Std. "JIS" and European Design Std.	N. American Design Std.	
EFBG-03	M10 × 100 Lg.	3/8-16 UNC × 4 Lg.	4
EFBG-06	M16 × 130 Lg.	5/8-11 UNC × 5 Lg.	4
EFBG-10	M20 × 130 Lg.	3/4-10 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	Power Amplifier Model Numbers	
	For Flow Control	For Pres. Control
EFBG-03-125-17/1790 EFBG-06-250-17/1790 EFBG-10-500-17/1790	AME-D-S-* -32 AME-DF-S-* -22 AME-T-S-* -22	—
EFBG-06- <sup>03</sup> / <sub>10</sub> *- <sup>C</sup> / <sub>H</sub> 17/1790	AME-D2-H1-* -12	

## ■ 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	
EFBG-03	EFBGM-03Y-10	Rc 3/4	EFBGM-03Y-1080	3/4 BSP.F	EFBGM-03Y-1090	3/4 NPT	6 (13.2)
	EFBGM-03Z-10	Rc 1	EFBGM-03Z-1080	1 BSP.F	EFBGM-03Z-1090	1 NPT	
EFBG-06	EFBGM-06X-10	Rc 1	EFBGM-06X-1080	1 BSP.F	EFBGM-06X-1090	1 NPT	12.5 (27.6)
	EFBGM-06Y-10	Rc 1-1/4	EFBGM-06Y-1080	1-1/4 BSP.F	EFBGM-06Y-1090	1-1/4 NPT	16 (35.3)
EFBG-10	EFBGM-10Y-10 <sup>*</sup>	1-1/2, 2 Flange Mounting	EFBGM-10Y-1080 <sup>*</sup>	1-1/2, 2 Flange Mounting	EFBGM-10Y-1090 <sup>*</sup>	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 EFBGM-10Y, see Type F3 Pipe Flange Kits on the Catalogue No. Pub. EC-3001 and order an appropriate pipe flange kit also.

## ■ Instructions

### ● Drain Back Pressure

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

### ● When Relief Valve Passing Flow Rate is Low in Pressure Control State

To avoid preselected pressure instability, use a passing flow rate of 10 L/min (2.6 U.S.GPM) or higher for nominal sizes 03 and 06 or 15 L/min (4.0 U.S.GPM) or higher for nominal size 10.

Further, check that the tank-line back pressure does not exceed 0.5 MPa (70 PSI).

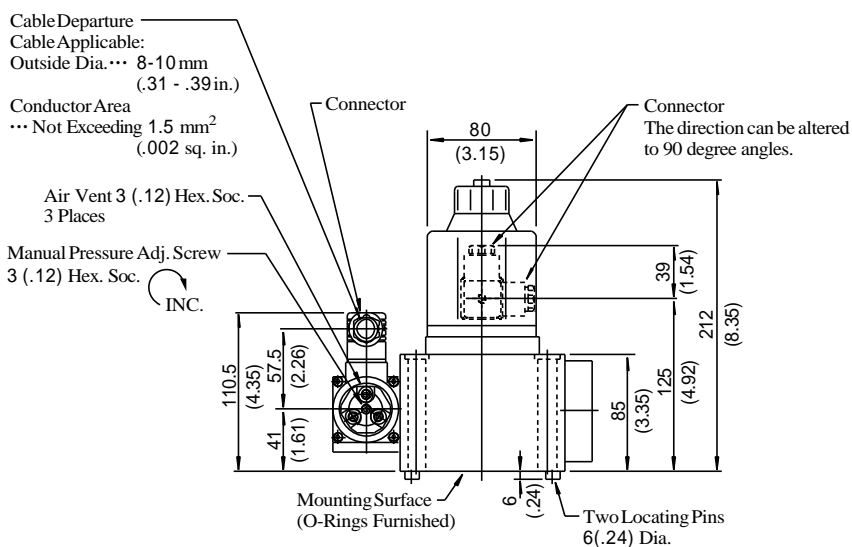
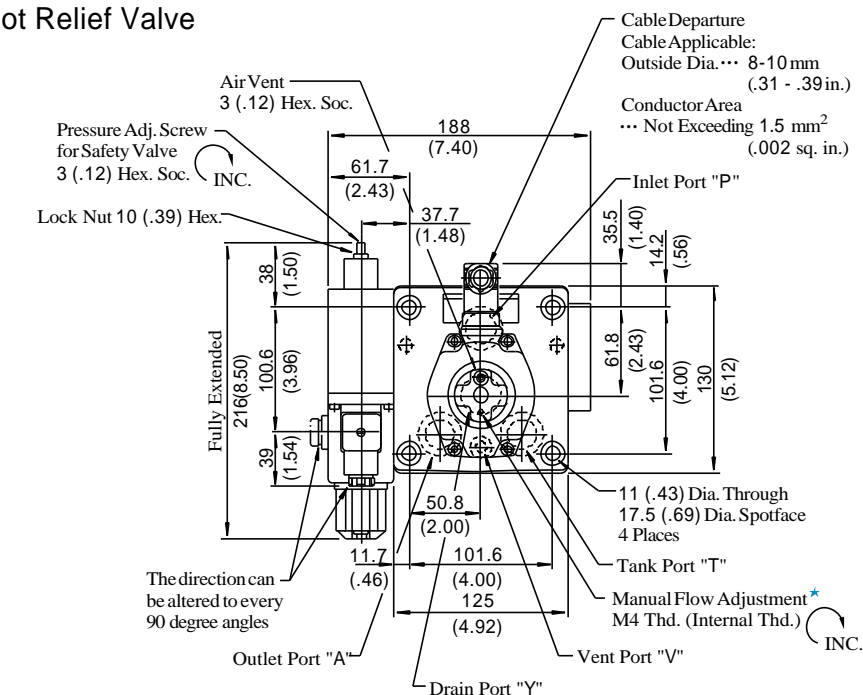
### ● Safety Valve Pressure Setting

The pressure of the safety valve is preset at the value equal to the upper limit of the pressure adjustment range plus 2 MPa (290 PSI). Please adjust the pressure of the valve so preset to meet the pressure to be used actually.

To lower the pressure setting, turn the safety valve pressure adjustment screw anti-clockwise. After adjustment, be sure to tighten the lock nut.

#### Models with Proportional Pilot Relief Valve

EFBG-03-125<sup>C</sup><sub>H</sub>-17/1790



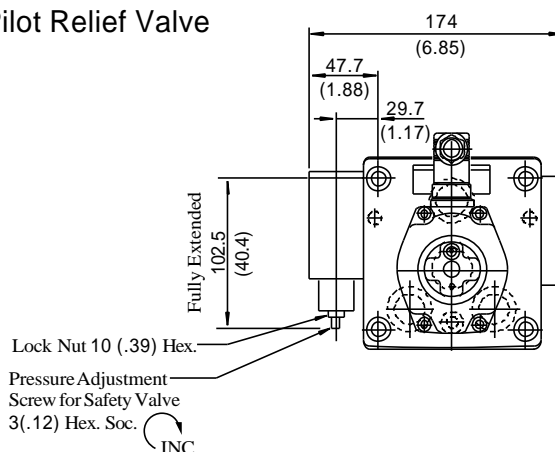
**DIMENSIONS IN  
MILLIMETRES (INCHES)**

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

Approx. Mass ..... 16kg  
(35.3 lbs.)

#### Models without Proportional Pilot Relief Valve

EFBG-03-125-17/1790

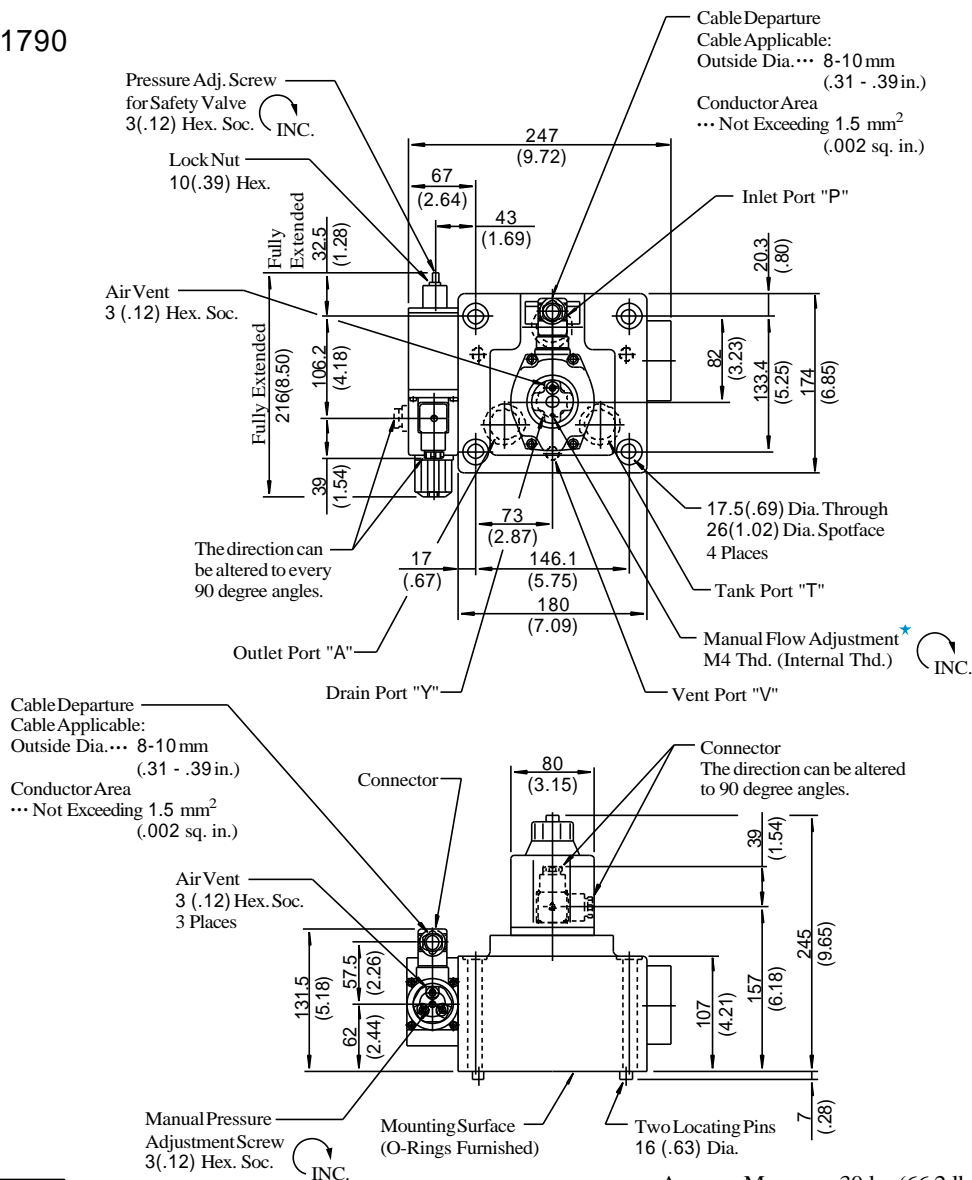


Approx. Mass ..... 14kg  
(30.9 lbs.)

• For other dimensions, please refer to the models with proportional pilot relief valve.

#### Models with Proportional Pilot Relief Valve

EFBG-06-250-<sup>C</sup><sub>H</sub>-17/1790



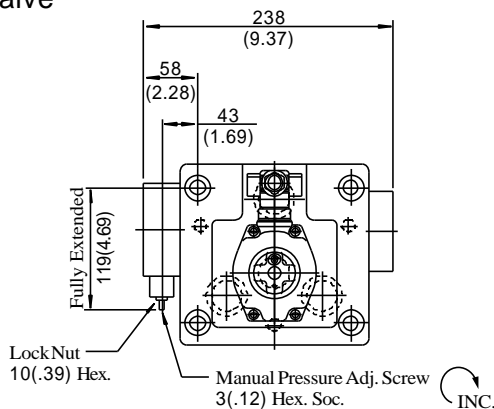
**DIMENSIONS IN  
MILLIMETRES (INCHES)**

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

Approx. Mass ..... 30 kg (66.2 lbs.)

#### Models without Proportional Pilot Relief Valve

EFBG-06-250-17/1790

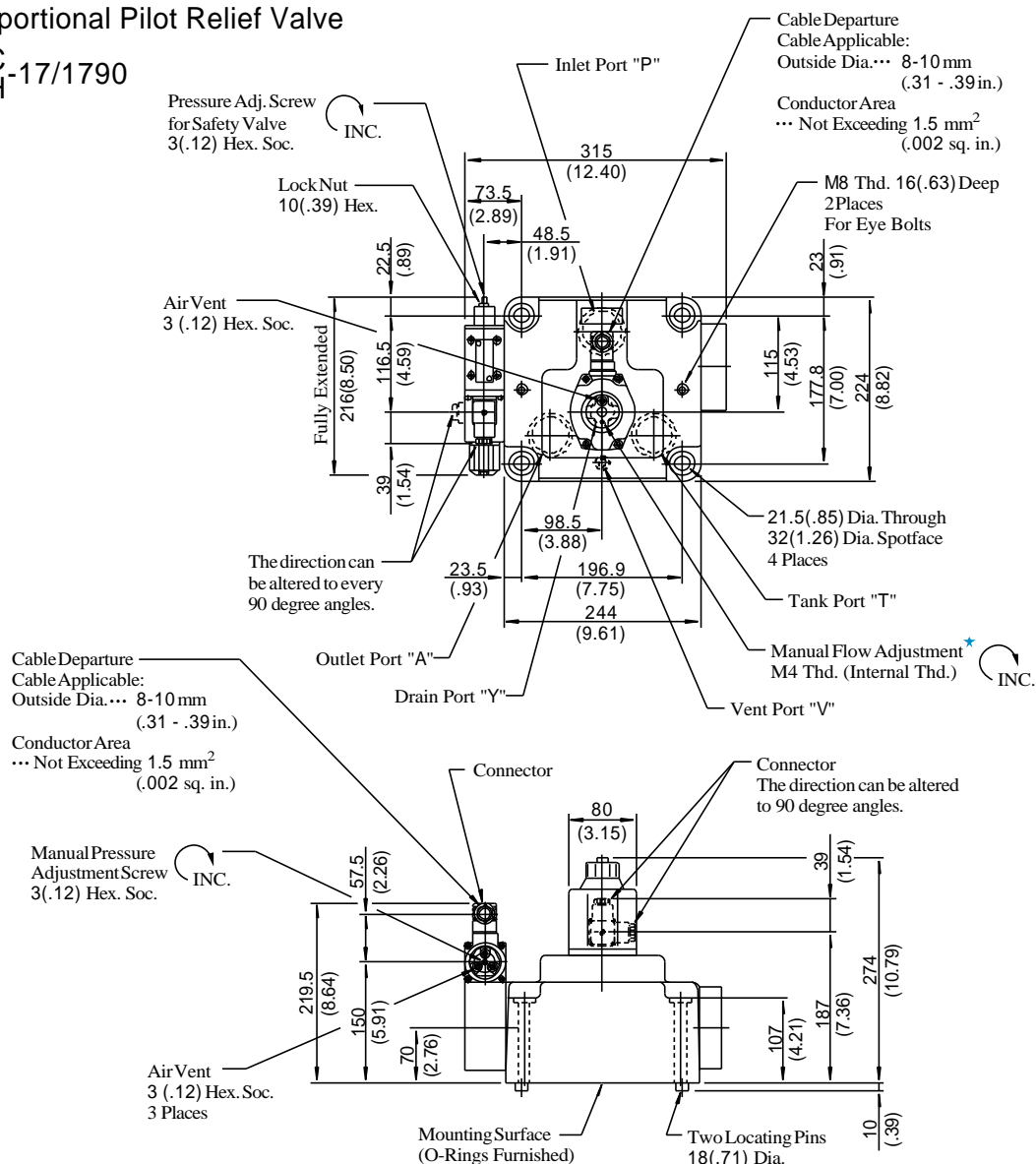


Approx. Mass ..... 28 kg (61.7 lbs.)

• For other dimensions, please refer to the models with Proportional Pilot Relief Valve.

#### Models with Proportional Pilot Relief Valve

EFBG-10-500-<sup>C</sup><sub>H</sub>-17/1790



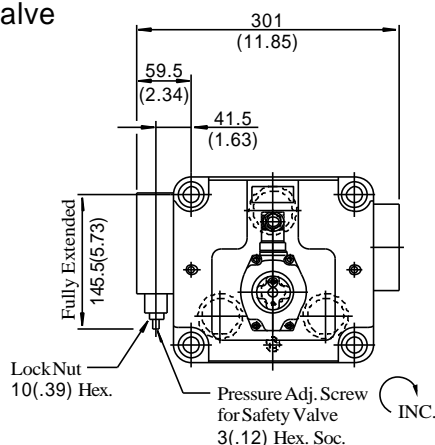
**DIMENSIONS IN  
MILLIMETRES (INCHES)**

Approx. Mass ..... 60 kg (132 lbs.)

★ 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.

#### Models without Proportional Pilot Relief Valve

EFBG-10-500-17/1790



Approx. Mass ..... 58 kg (128 lbs.)

• For other dimensions, please refer to the models with Proportional Pilot Relief Valve.





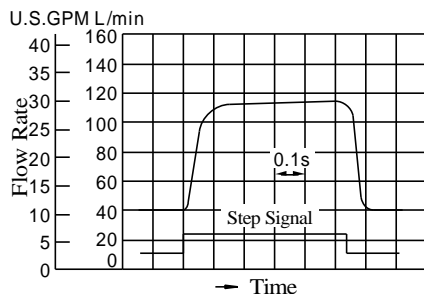


#### Step Response

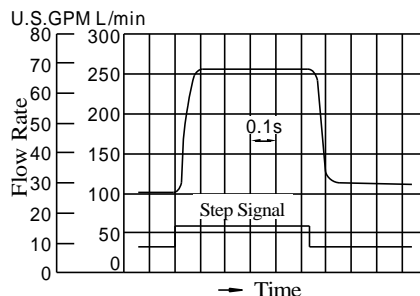
These characteristics have been obtained by measuring on each valve.  
Therefore, they may vary according to a hydraulic circuit to be used.

#### Flow Controls

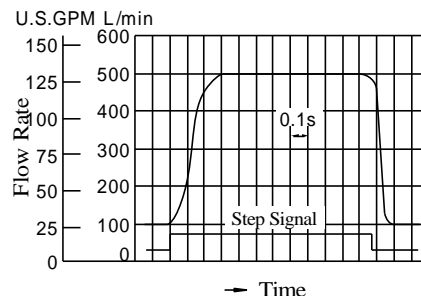
**EFBG-03**



**EFBG-06**

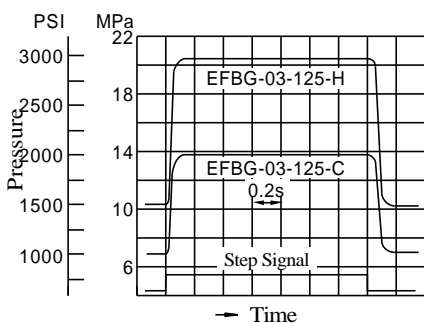


**EFBG-10**

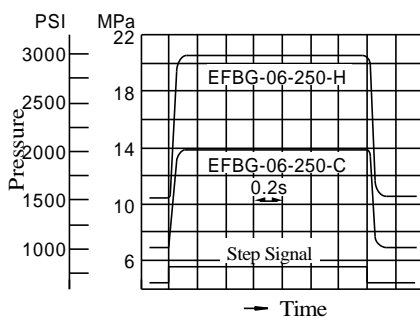


#### Pressure Controls

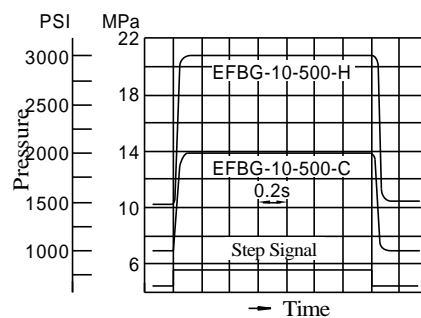
**EFBG-03**



**EFBG-06**

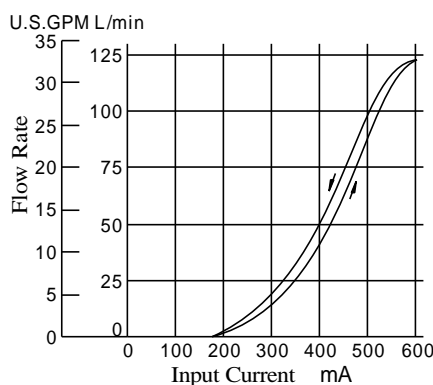


**EFBG-10**

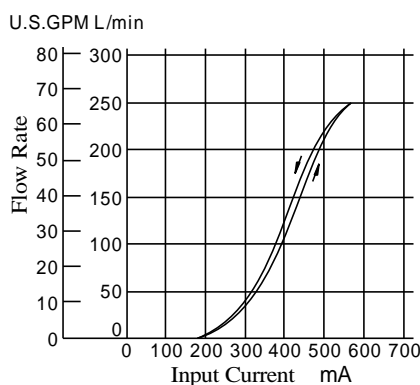


#### Input Current vs. Flow

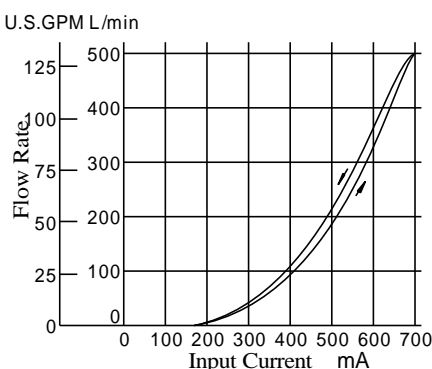
**EFBG-03**



**EFBG-06**

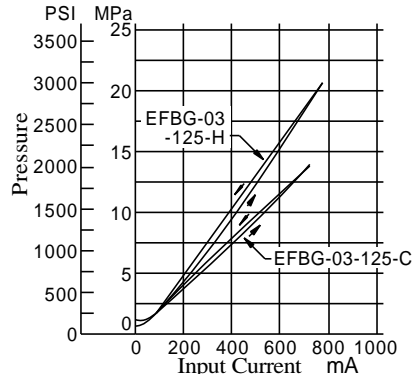


**EFBG-10**

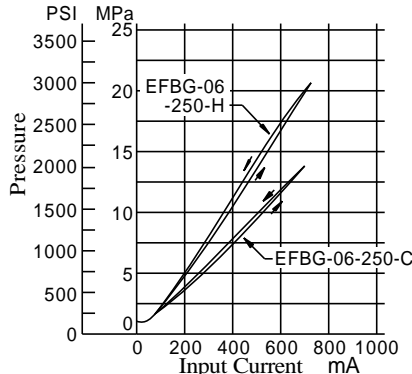


#### Input Current vs. Pressure

**EFBG-03**



**EFBG-06**



**EFBG-10**

