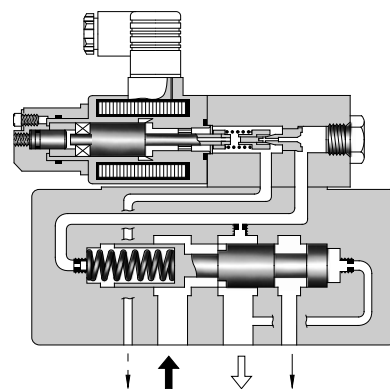
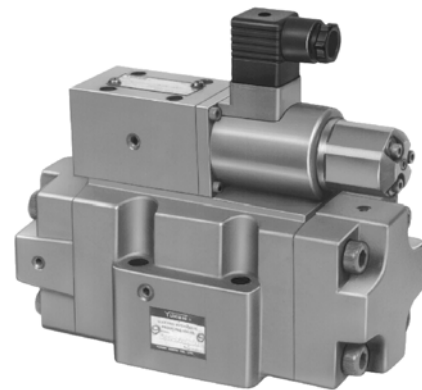


Specifications / Model Number Designation

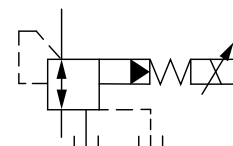
■ Specifications

Model Numbers	ERBG-06	ERBG-10
Description		
Max. Operating Pres. MPa (PSI)	24.5 (3550)	24.5 (3550)
Max. Flow L/min(U.S.GPM)	100 (26.4)	250 (66)
Max. Relieving Flow L/min(U.S.GPM)	35 (9.24)★	15 (3.96)★
Secondary Pres. Adj. Range MPa (PSI)	Refer to Model Number Designation	
Rated Current	B : 800 mA C : 800 mA H : 950 mA	B : 800 mA C : 800 mA H : 950 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.)	12 (26.5)	13.5 (29.8)

★ The values shown are those obtained where the differential pressure between the secondary pressure port and tank port is 13.7 MPa (2000 PSI).



Graphic Symbol



■ Model Number Designation

ERB	G	-06	-C	-51	*
Series Number	Type of Mounting	Valve Size	Secondary Pres. Adj. Range MPa (PSI)	Design Number	Design Standards
ERB : Proportional Electro-Hydraulic Reducing and Relieving Valve	G : Sub-plate Mounting	06	B : 0.8 - 6.9 (115 - 1000) C : 1.2 - 13.7 (175 - 2000) H : 1.5 - 20.6 (220 - 3000)	51	Refer to ★
		10	B : 0.9 - 6.9 (130 - 1000) C : 1.2 - 13.7 (175 - 2000) H : 1.5 - 20.6 (220 - 3000)		

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



■ Attachment

● Mounting Bolts

Valve Model Numbers	Socket Head Cap Screw		
	Japanese Standard "JIS" & European Design Standard	N. American Design Standard	Qty.
ERBG-06	M10 × 70 Lg.	3/8 - 16 UNC × 2-3/4 Lg.	4
ERBG-10	M10 × 70 Lg.	3/8 - 16 UNC × 2-3/4 Lg.	6

■ Applicable Power Amplifier

For stable performance, it is recommended that Yuken's applicable power amplifiers be used (for details see 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	
ERBG-06	ERBGM-06-20	Rc 3/4	ERBGM-06-2080	3/4 BSP.F	ERBGM-06-2090	3/4 NPT	3.0 (6.6)
ERBG-10	ERBGM-10-10	Rc 1-1/4	ERBGM-10-1080	1-1/4 BSP.F	ERBGM-10-1090	1-1/4 NPT	6.5 (14.3)

- 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

● Primary Pressure Required for Preselected Pressure

The primary pressure must be 1 MPa (145 PSI) higher than the preselected pressure.

● Drain Back Pressure

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

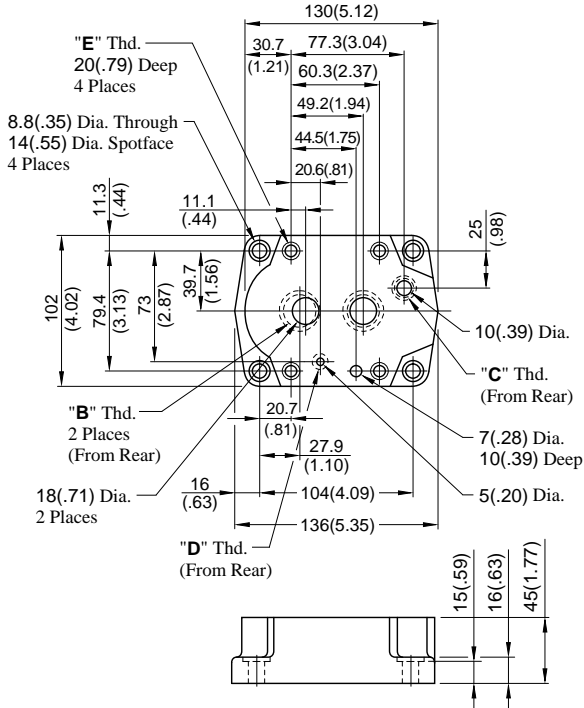
● Trapped Oil Volume

The recommended secondary side trapped oil volume is about 20 liters (5.28 U.S.Gallons). Note that the trapped oil volume must not be lower than 1.4 liters (.37 U.S.Gallons).

Installation Drawing

Sub-plate:

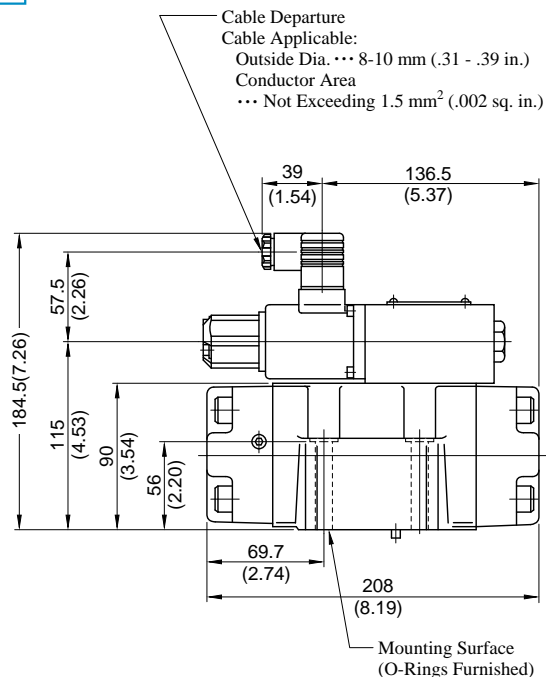
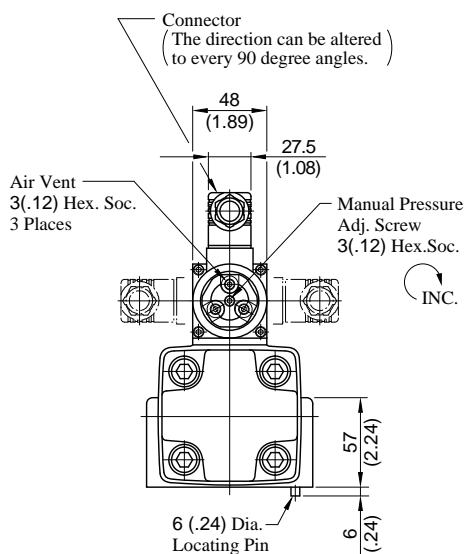
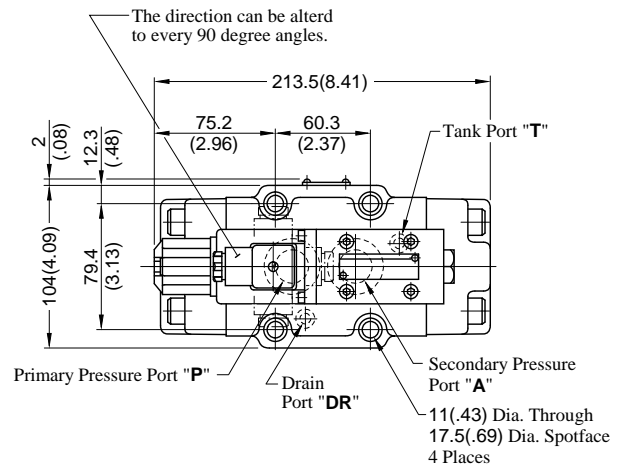
ERBGM-06-20/2080/2090



Sub-plate Model Numbers	Thread Size			
	"B" Thd.	"C" Thd.	"D" Thd.	"E" Thd.
ERBGM-06-20	Rc 3/4	Rc 3/8	Rc 1/4	M10
ERBGM-06-2080	3/4 BSP.F	3/8 BSP.F	1/4 BSP.F	
ERBGM-06-2090	3/4 NPT	3/8 NPT	1/4 NPT	

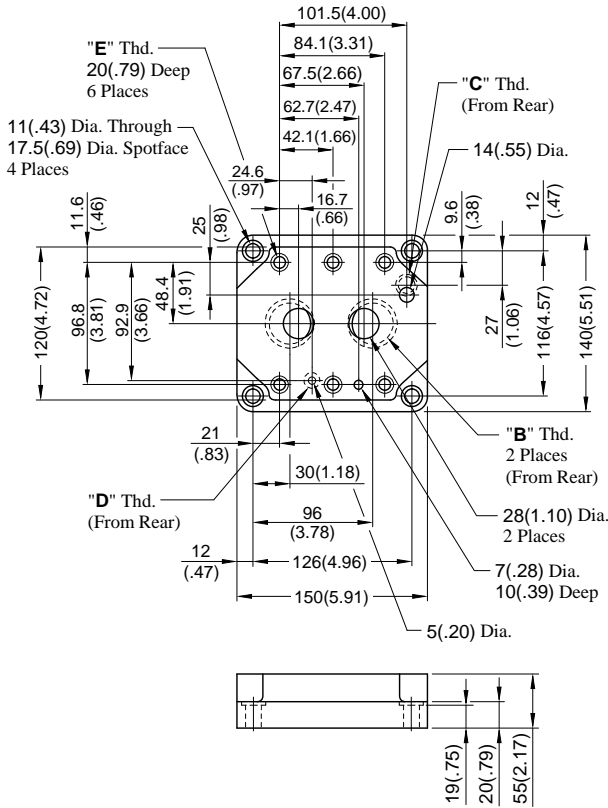
DIMENSIONS IN MILLIMETRES (INCHES)

ERBG-06-* -51/5190



Installation Drawing

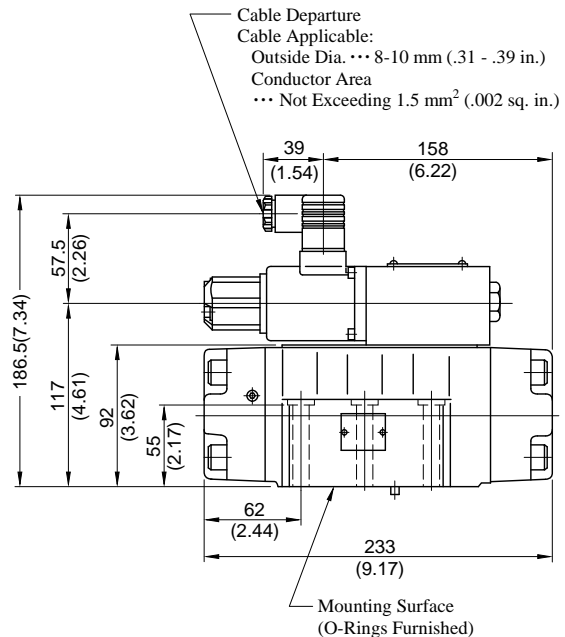
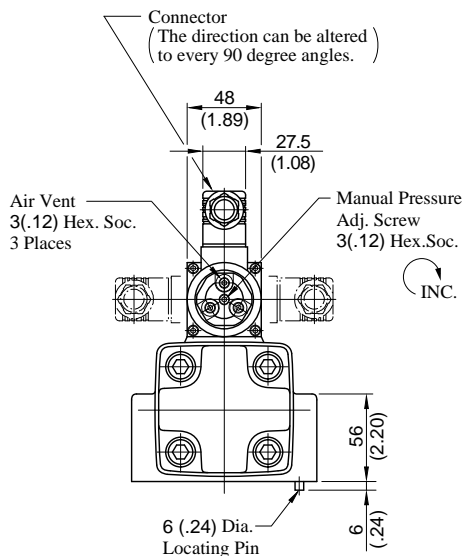
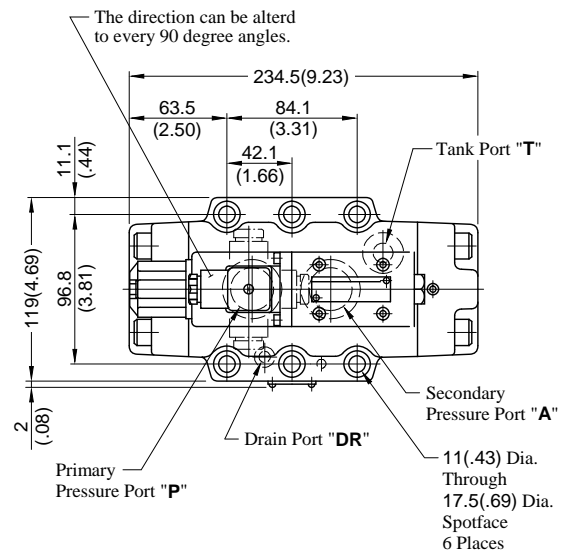
Sub-plate:
ERBGM-10-10/1080/1090



Sub-plate Model Numbers	Thread Size			
	"B" Thd.	"C" Thd.	"D" Thd.	"E" Thd.
ERBGM-10-10	Rc 1-1/4	Rc 3/8	Rc 1/4	M10
ERBGM-10-1080	1-1/4 BSP.F	3/8 BSP.F	1/4 BSP.F	
ERBGM-10-1090	1-1/4 NPT	3/8 NPT	1/4 NPT	

DIMENSIONS IN
MILLIMETRES (INCHES)

ERBG-10-*51/5190



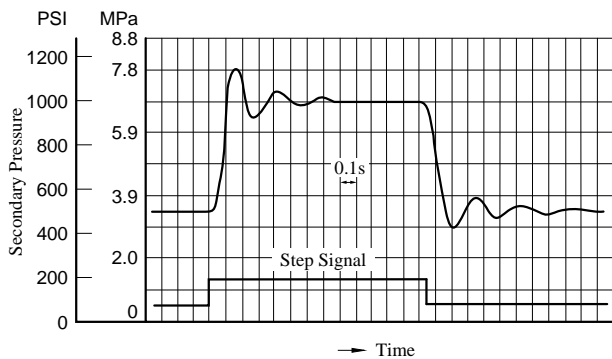
Typical Performance Characteristics

■ Step Response (Example)

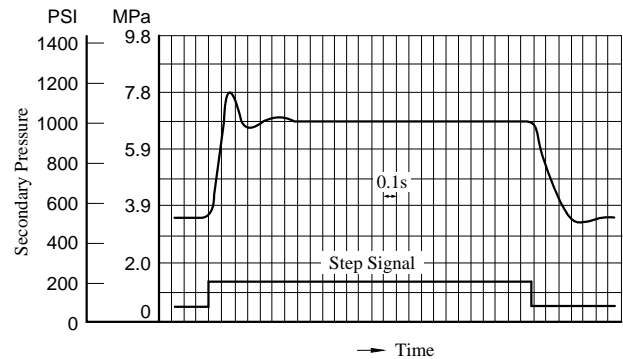
The following step response characteristics are taken when the trapped oil volume is 20 liters (5.28 U.S.Gallons). The step response varies by trapped oil volume.

Primary Pressure : 24.5 MPa (3550 PSI)
 Trapped Oil Volume : 20 L (5.28 U.S.Gallons)
 Viscosity : 30 mm²/s (141 SSU)

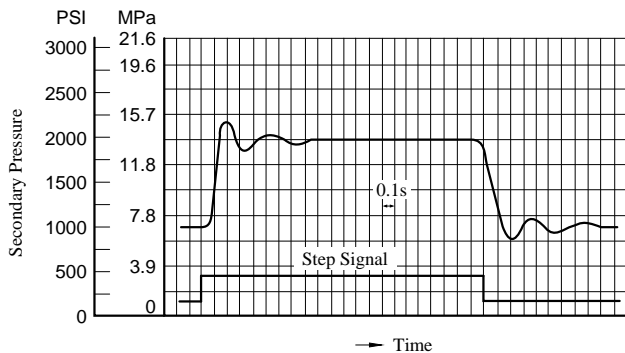
ERBG-06-B



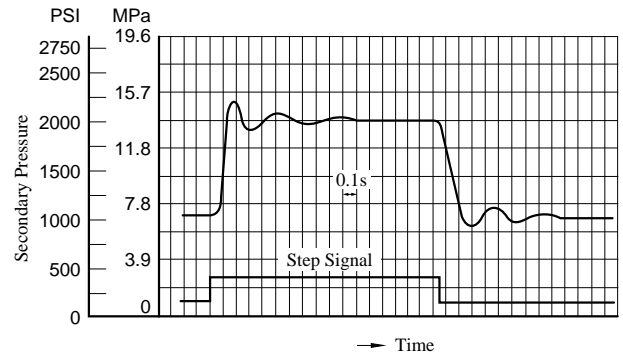
ERBG-10-B



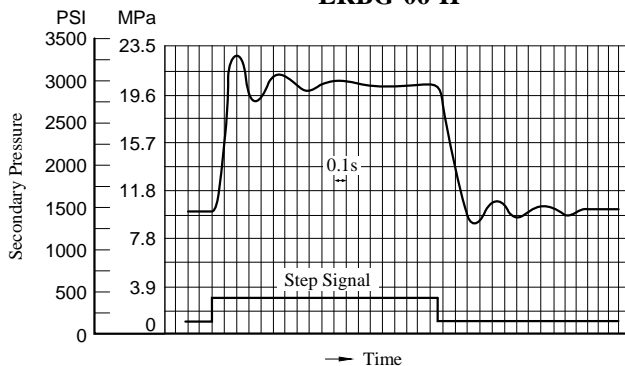
ERBG-06-C



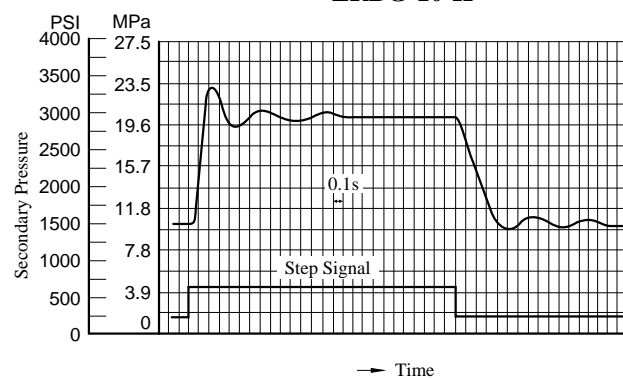
ERBG-10-C



ERBG-06-H



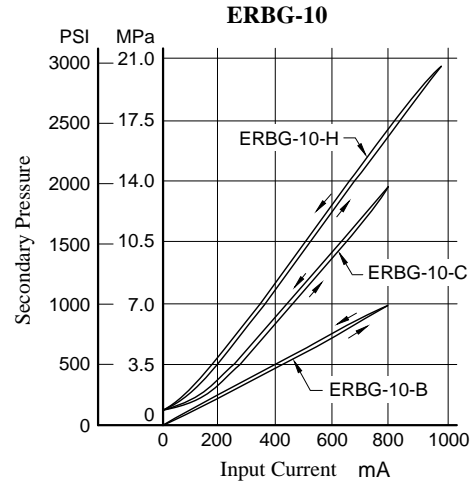
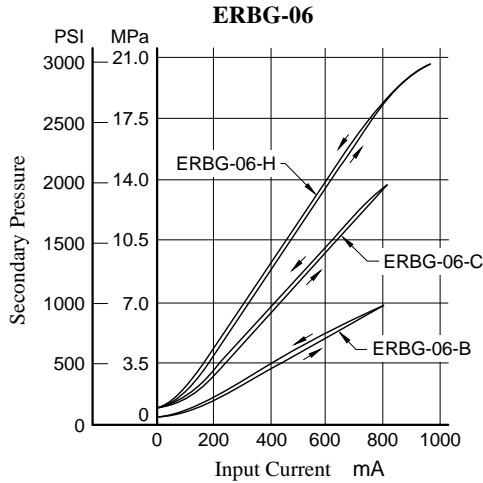
ERBG-10-H



Typical Performance Characteristics

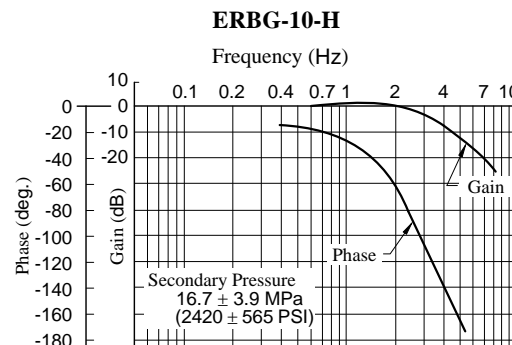
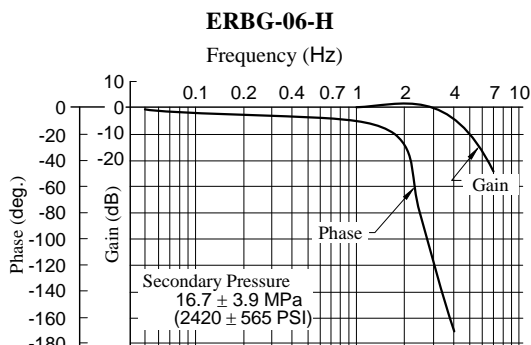
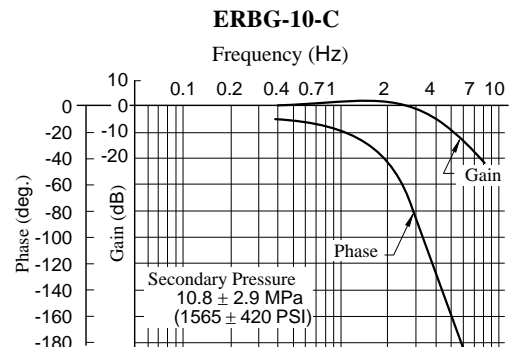
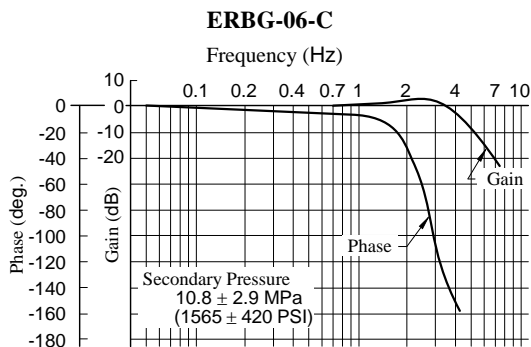
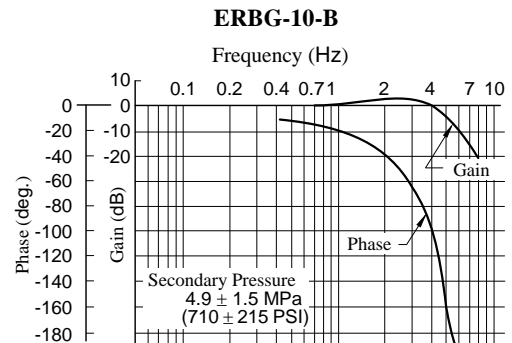
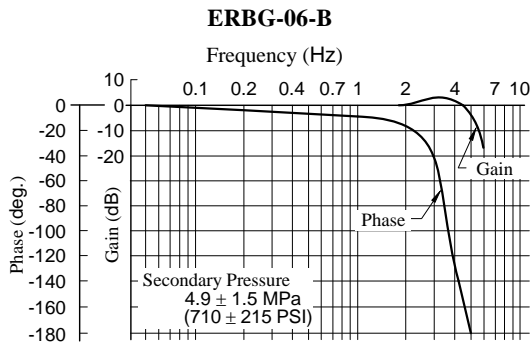
Input Current vs. Secondary Pressure

Primary Pressure : 24.5 MPa (3550 PSI)
Viscosity : 30 mm²/s (141 SSU)



Frequency Response

Primary Pressure : 24.5 MPa (3550 PSI)
Trapped Oil Volume : 20 L (5.28 U.S.Gallons)
Viscosity : 30 mm²/s (141 SSU)

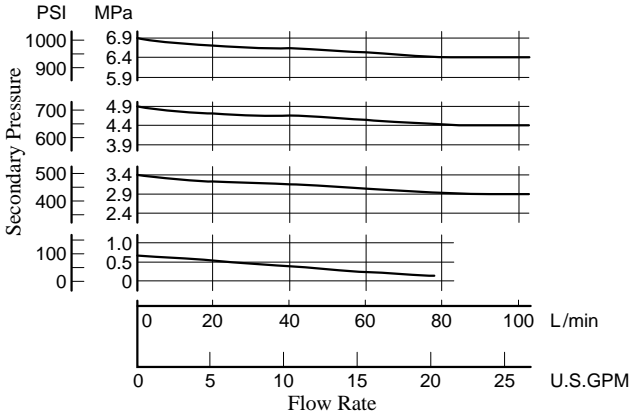


Typical Performance Characteristics

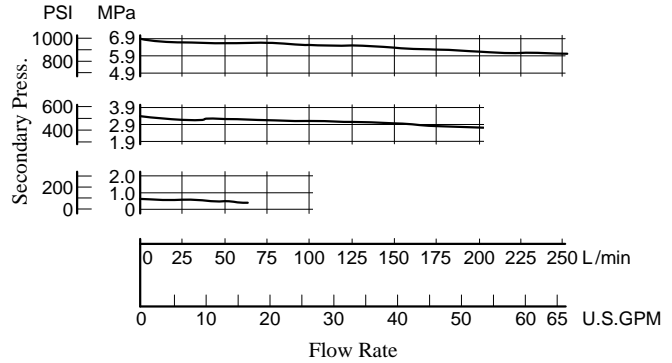
Flow Rate vs. Secondary Pressure

Viscosity : 30 mm²/s (141 SSU)

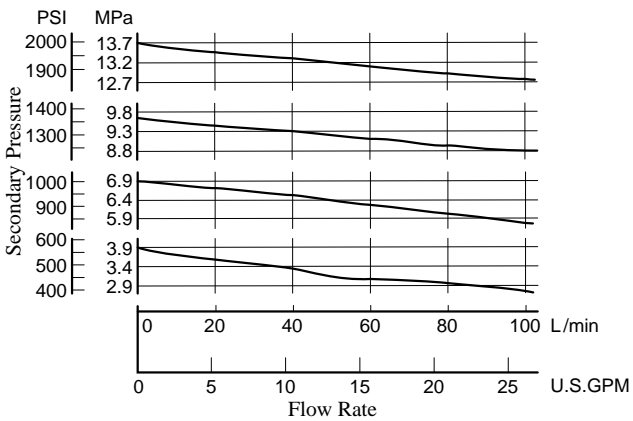
ERBG-06-B



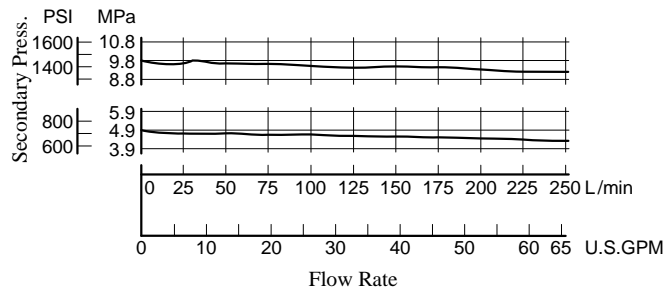
ERBG-10-B



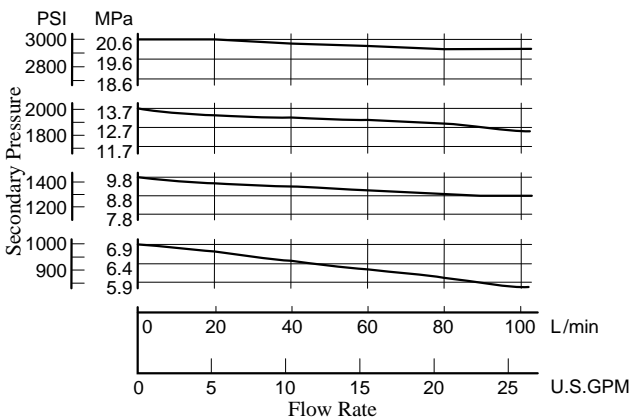
ERBG-06-C



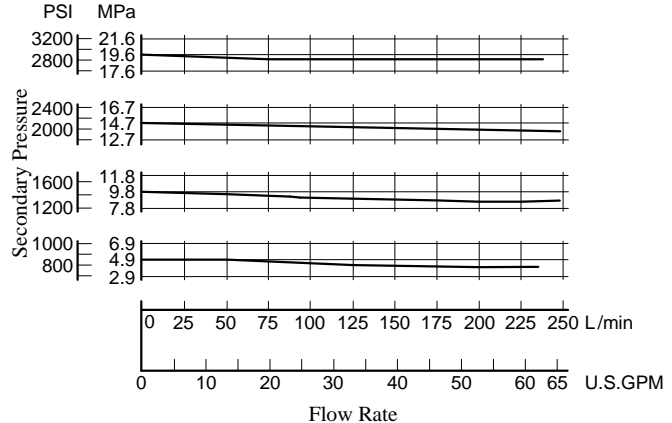
ERBG-10-C



ERBG-06-H

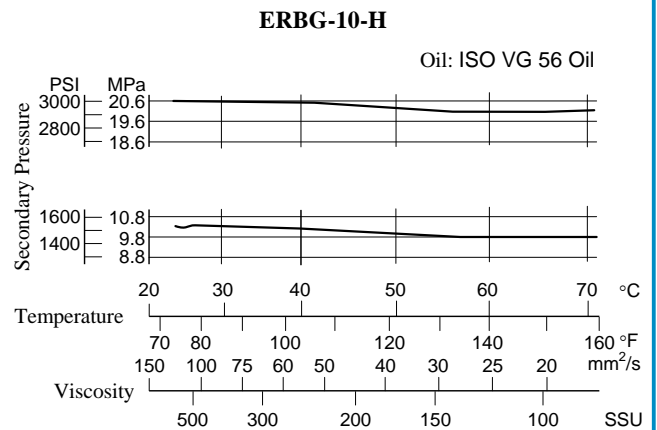
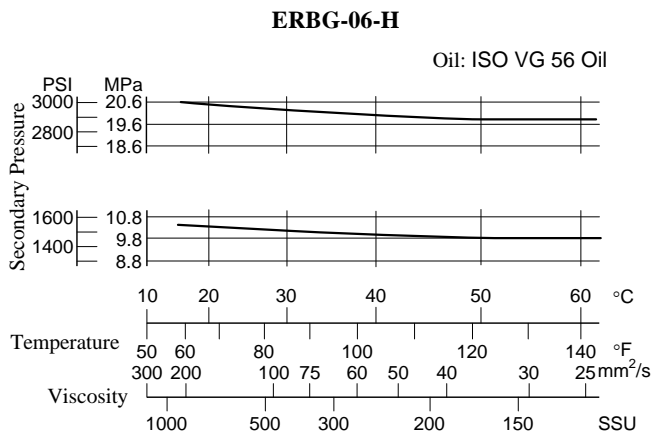
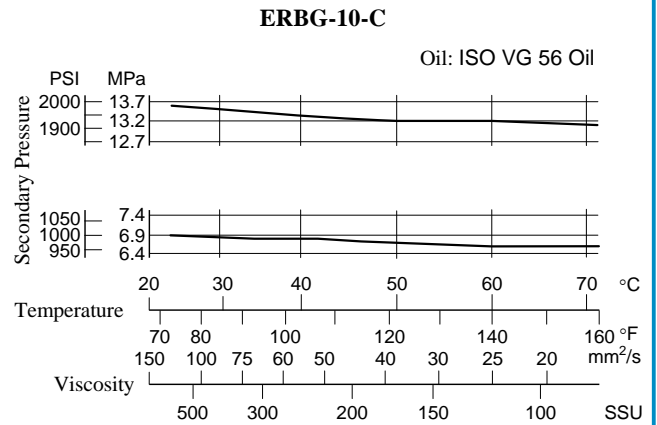
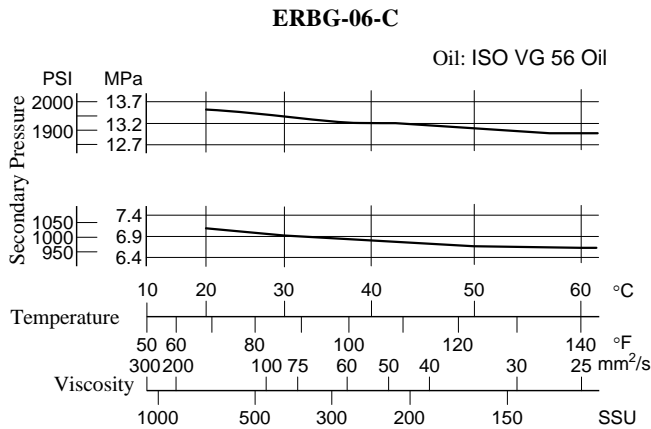
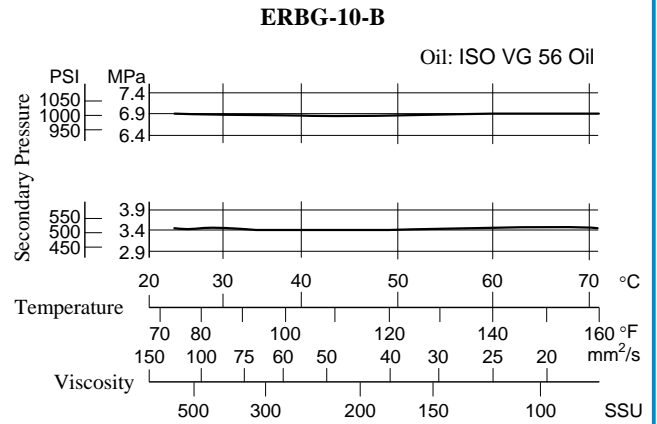
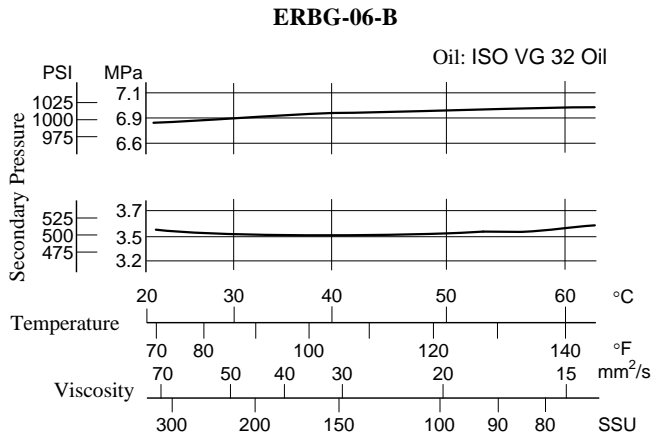


ERBG-10-H



Typical Performance Characteristics

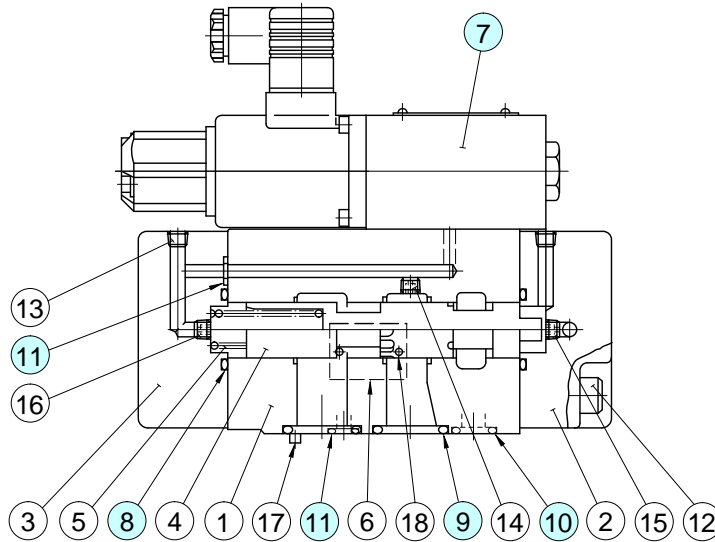
■ Viscosity vs. Secondary Pressure



Spare Parts List

■ Spare Parts List

ERBG-06/10-*51/5190



● List of Seals

Item	Name of Parts	Part Numbers		Qty.
		ERBG-06	ERBG-10	
8	O-Ring	SO-NB-G30	SO-NB-P36	2
9	O-Ring	SO-NB-P28	SO-NB-P32	2
10	O-Ring	SO-NB-P14	SO-NB-P18	1
11	O-Ring	SO-NB-P9	SO-NB-P9	3

Note) When ordering seals, please specify the seal kit number from the table right. In addition to the above O-rings, O-rings for pilot valve are included in the seal kit.
For the details of the pilot valve seals, see page 9.

● List of Seal Kits

Model Numbers	Seal Kit Numbers
ERBG-06	KS-ERBG-06-51
ERBG-10	KS-ERBG-10-51

● Pilot Valve

Valve Model No.	⑦ Pilot Valve Model Numbers
ERBG-06-B-51/5190	EDG-01-B-PNTN-5101
ERBG-06-C-51/5190	EDG-01-C-PNTN-5101
ERBG-06-H-51/5190	EDG-01-H-PNT15-5101
ERBG-10-B-51/5190	EDG-01-B-PNTN-5101
ERBG-10-C-51/5190	EDG-01-C-PNTN-5101
ERBG-10-H-51/5190	EDG-01-H-PNT15-5101

Note: For the details of pilot valves, refer to "Pilot Relief Valves" on page 9.

⚠ CAUTION

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



Interchangeability between Current and New Design

■ Interchangeability between Current and New Design

ERBG-06/10 series valves have changed model from 50 to 51 design in line with the model change of pilot valve (EDG-01).

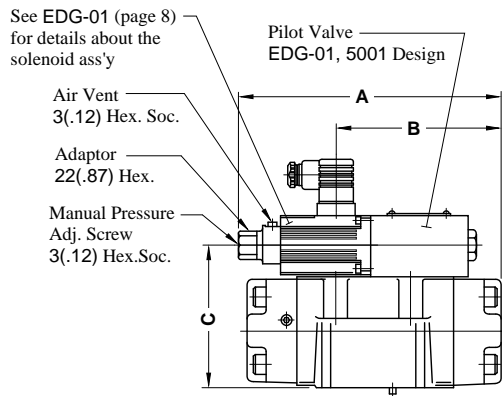
● Specifications and Characteristics

No change in specifications and characteristics between current and new design.

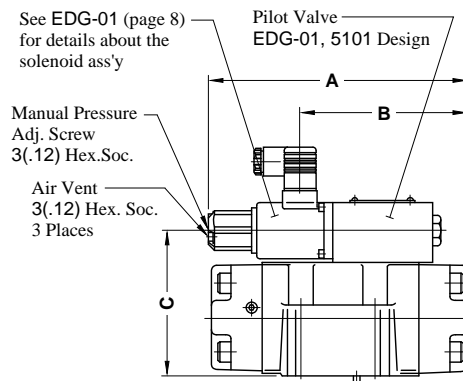
● Mounting Interchangeability

There is an interchangeability in the mounting dimensions, however, the outside shape and dimensions are changed as shown below due to pilot valve improvement and other modifications.

Current: Design 50



New: Design 51



Model Numbers		A	B	C
Current	ERBG-06-*/-50/5090	214.5 (8.44)	136.5 (5.37)	115 (4.53)
New	ERBG-06-*/-51/5190	213.5 (8.41)	136.5 (5.37)	115 (4.53)
Current	ERBG-10-*/-50/5090	235.5 (9.27)	158 (6.22)	117 (4.61)
New	ERBG-10-*/-51/5190	234.5 (9.23)	158 (6.22)	117 (4.61)

DIMENSIONS IN
MILLIMETRES (INCHES)