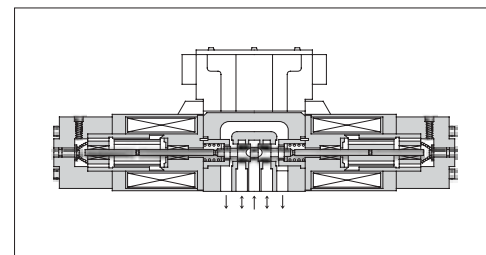


Proportional Electro-Hydraulic Directional and Flow Control Valves

These valves incorporate two control functions - flow and direction - which simplify the hydraulic circuit composition and therefore the cost of the system is reduced.



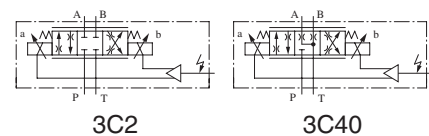
Specifications

		Model Numbers	EHDFG-01	EHDFG-03
Description				
Max. Operating Pressure	MPa (PSI)		24.5 (3550)	24.5 (3550)
Max. Tank Line Back Pres.	MPa (PSI)		7 (1020)	7 (1020)
Rated Flow	L/min (U.S.GPM)		30 (7.92)	60 (15.9)
[Valve ΔP 6.9 MPa (1000 PSI)]				
Hysteresis			5% or less	
Repeatability			1%* or less	
Frequency Response			20 Hz (-90 deg.)	17 Hz (-90 deg.)
Coil Resistance			10.5 Ω	8.0 Ω
Supply Electric Power			24 V DC (21 to 28 V DC Included Ripple)	
Input Voltage	By Controlling Variable Resistance (Using of Power from Amp.)		1 - 2 kΩ Volume Range	
	By Controlling Voltage (Using of Power outside Amp.)		0 - -5 V for SOL a	0 - +5 V for SOL b
Input Impedance			10 kΩ	10 kΩ
Power Input (Max.)			40 W	45 W
Ambient Temperature			0 - 50°C (32 - 122°F) (With Circulated Air)	

* The repeatability of the valves is obtained by having it tested independently on the conditions similar to its original testing.

Graphic Symbols

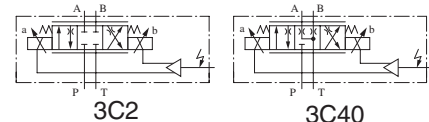
● Metre-in • Metre-out Control



3C2

3C40

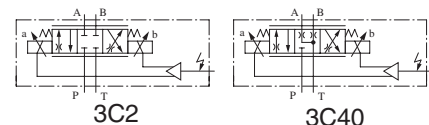
● Metre-out Control



3C2

3C40

● Metre-in Control



3C2

3C40

Model Number Designation

F-	EHDF	G	-01	-30	-3C2	-E	-30
Special Seals	Series Number	Type of Mounting	Valve Size	Rated Flow L/min (U.S.GPM)	Spool Type*	Direction of Flow	Design Number
F: Special Seals for Phosphate Ester Type Fluid (Omit if not required)	EHDF: Proportional Electro-Hydraulic Directional and Flow Control Valve	G: Sub-plate Mounting	01	30: 30 (7.92)	3C2	XY : Metre-in • Metre-out X : Metre-in Y : Metre-out	30
			03	60: 60 (15.9)	3C40		30

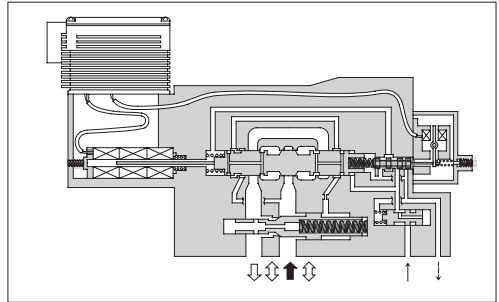
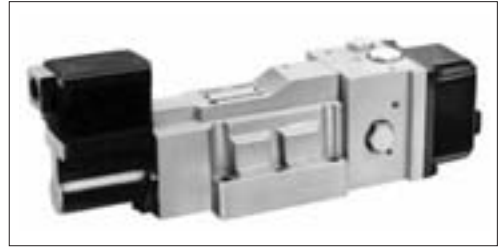
* Spool type shown in the column is for the centre position.

High Response Type Proportional Electro-Hydraulic Directional and Flow Control Valves

These valves pursue the ultimate performance of proportional electro-hydraulic directional & flow control valves and make themselves to have high response features.

The closed-loop is composed in the valve inside by combination of a differential transformer (LVDT) and a power amplifier. Thus, high accuracy and reliability are provided.

In addition to control in the open-loop, these can be used for the closed-loop system as simplified servo valves.



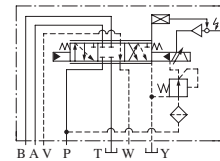
Specifications

Model Numbers		EHDFG-04	EHDFG-06
Description			
Max. Operating Pres.	MPa (PSI)	15.7 (2280)	15.7 (2280)
Rated Flow	L/min (U.S.GPM)	130 (34.3)	280 (73.9)
Valve Pres. Difference: 1.5 MPa (215 PSI)			
Min. Required Pilot Pres.	MPa (PSI)	1.5 (215)	1.5 (215)
Min. Required Pilot Flow	at Normal	2 (.53)	2 (.53)
	L/min (U.S.GPM)	at Transition	10 (2.64)
Max. Drain Line Back Pres.	MPa (PSI)	0.1 (15)	0.1 (15)
Hysteresis		1% or less	
Repeatability		1%* or less	
Frequency Response		55 Hz (-90 deg.)	45 Hz (-90 deg.)
Coil Resistance		30 Ω	30 Ω
Supply Electric Power		±24 V DC (±21 to ±28 V DC Included Ripple)	
Input Signal		Rated Flow / ±5 V DC	
Input Impedance		10 k Ω	10 k Ω
Power Input (Max.)		20 W	20 W
Alarm Signal Output (Open Collector)		Voltage: Max. 30 V DC Current: Max. 30 mA	
LVDT Output (Sensor Monitor)		±5 V DC / Rated Travel of Spool	
Ambient Temperature		0 - 50°C (32 - 122°F) (With Circulated Air)	

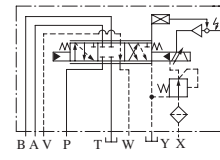
*The repeatability of the valves is obtained by having it tested independently on the conditions similar to its original testing.

Graphic Symbols

- Models without Pressure Compensator Valve

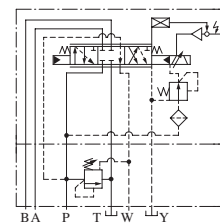


Internal Pilot



External Pilot

- Models with Pressure Compensator Valve



Internal Pilot

Model Number Designation

F-	EHDF	G	-04	-130	-2	-E	-CB	-10
Special Seals	Series Number	Type of Mounting	Valve Size	Rated Flow L/min (U.S.GPM)	Spool Type*	Pilot Connection	Relief Type Pres. Compensator	Design Number
F: Special Seals for Phosphate Ester Type Fluid (Omit if not required)	EHDF: Proportional Electro-Hydraulic Directional and Flow Control Valve	G: Sub-plate Mounting	04	130: 130 (34.3)	2	None: Internal Pilot E: External Pilot	None: Not Provided CB: Provided	10
			06	280: 280 (73.9)	40			10

* Spool type shown in the column is for the centre position.