

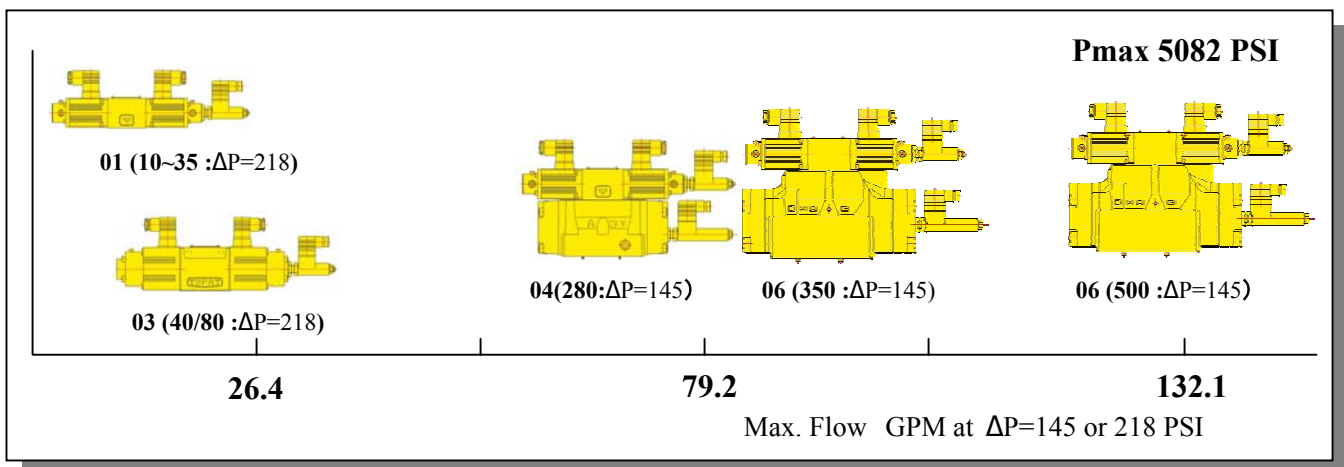
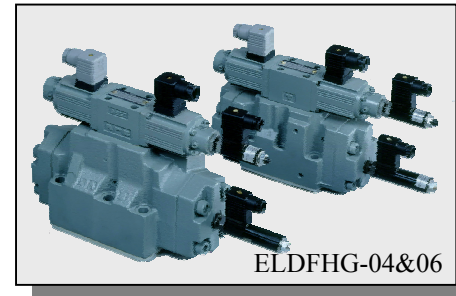
ELDF(H)G Series High Response Type Proportional Electro-Hydraulic Directional and Flow Control Valves

ELDFG-01/03(1/8,3/8) & ELDFHG-04/06 (1/2,3/4) Sub-plate Mounting

ELDFG/ELDFHG Series high response type proportional electro—hydraulic directional and flow control valves have high response characteristics by employing closed loop control system. Especially, the valves of zero-lap type (spool type:3C2P) are suitable for position control or pressure control.

■ Features

- **High response characteristics equivalent to servo valves**
 ELDFG-01: 48 Hz/-90°(±25% Amplitude)
 ELDFHG-06: 66 Hz/-90°(±25% Amplitude)
- **Excellent anti-contamination characteristics**
 Troubles caused by contaminant in oil can be reduced as the valves are superior in anti-contamination to nozzle-flapper type servo valves.



■ Model Number Designation

ELDFHG	- 04	- 280	- 3C2	- XY	- E	T	- 10
Series Number	Valve Size	Max. Adjustable Flow Rate GPM (L/Min)	Spool Type	Direction of Flow	Pilot Type	Drain Type	Design Number
ELDFG:	01	10: 2.6 (10) 20: 5.3 (20) 35: 9.2 (35)	3C2 3C40 3C2P (Zero-lap)	XY: Metre-in& Metre-out	—	—	10
	03	40: 10.5 (40) 80: 21 (80)					
ELDFHG:	04	280: 74 (280)	3C2 3C40 3C2P (Zero-lap)	XY: Metre-in& Metre-out	None: Internal Pilot	None: External Drain	10
	06	350: 92.5 (350) 500: 132 (500)			E: External Pilot	T: Internal Drain	

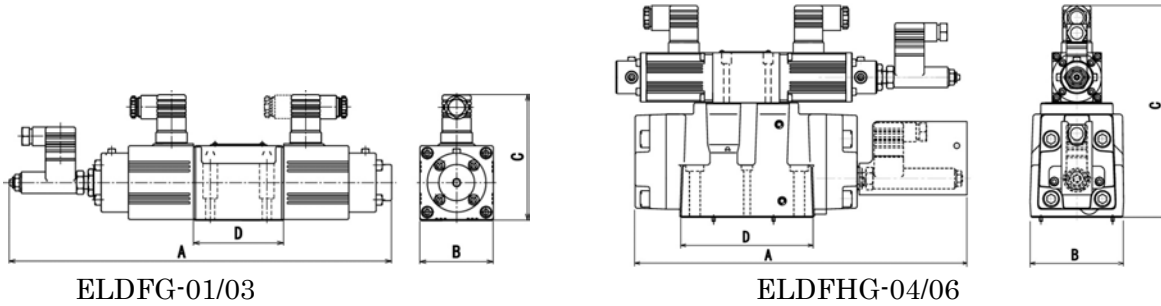
■ Specifications

Model No.		ELDFG-01-※-3C※-XY-10	ELDFG-03-※-3C2/3C40-XY-10	ELDFG-03-※-3C2P-XY-10
Description				
Max. Operating Pressure MPa		5082 PSI (31.5 MPa)		
Max. Tank Line Back Pressure PSI (MPa)		3050 PSI (21 MPa)		
Rated Flow at Valve pressure Difference 218 PSI (1.5 MPa)		2.6, 5.3, 9.3 GPM (10, 20, 35 L/min)	10.5, 21 GPM (40, 80 L/min)	
Rated Current		max. 2.5 A	max. 3 A	
Coil Resistance 68°F (20°C)		3.9 Ω	3 Ω	
Power Consumption		max. 25 W	max. 27 W	
Hysteresis		less than 0.5 %		
Repeatability		less than 0.5 %		
Step Response (1)	(0→100%V)	less than 30 ms	less than 29 ms	less than 25 ms
	(100→0%V)	less than 30 ms	less than 26 ms	less than 23 ms
Frequency Response (1)	Phase (-90°)	48 Hz (50%V±25%V)	36 Hz (0±25%V)	41 Hz (0±25%V)
	Gain (-3dB)	52 Hz (50%V±5%V)	35 Hz (0±25%V)	38 Hz (0±25%V)
Approx. Mass		7 Lbs (3.2 kg)	16.5 Lbs (7.5 kg)	

Model No.		ELDFHG-04-280-3C※-XY-※※-10	ELDFHG-06-350-3C※-XY-※※-10	ELDFHG-06-500-3C※-XY-※※-10
Description				
Max. Operating Pressure MPa		5082 PSI (35 MPa)		4574 PSI (31.5 MPa)
Max. Tank Line Back Pressure PSI (MPa)		3050 PSI (21 MPa)		
Rated Flow at Valve pressure Difference 145 PSI (1.0 MPa)		74 GPM (280 L/min)	92.5 GPM (350 L/min)	132 GPM (500 L/min)
Pilot Line Pressure		218~4574 PSI (1.5~31.5 MPa)		
Pilot Flow Rate		4.2 GPM (16 L/min)	4.2 GPM (16 L/min)	5 GPM (19 L/min)
Rated Current		max. 2.5 A	max. 2.5 A	
Coil Resistance 68°F (20°C)		3.9 Ω		
Power Consumption		max. 25 W		
Hysteresis		less than 0.5 %		
Repeatability		less than 0.5 %		
Step Response (1)	(0→100%V)	13 ms	15 ms	18 ms
	Phase (-90°)	46 Hz (±25%V)	66 Hz (±25%V)	39 Hz (±25%V)
Approx. Mass		22 Lbs (10 kg)	40 Lbs (18 kg)	42 Lbs (19 kg)

Note (1) The above characteristics were measured with each valve so they may vary depend upon hydraulic circuit of actual machine.

■ Dimensions



Model Number	Dimensions Inch (mm)				Mounting Surface
	A	B	C	D	
ELDFG-01	13.1 (335)	1.9 (48)	3.74 (95)	2.6 (65)	ISO 4401-AB-03-4-A
ELDFG-03	14.4 (365)	2.7 (70)	4.7 (120)	3.4 (86)	ISO 4401-AC-05-4-A
ELDFHG-04-280	13.4 (341)	3.6(91)	8.1 (206)	5.1 (130)	ISO 4401- AD-07-4-A
ELDFHG-06-350	14.6 (371)	4.6 (118)	9.1 (232)	6.1 (156)	ISO 4401- AE-08-4-A
ELDFHG-06-500	14.8 (375)	4.6 (118)	9.1 (232)	6.1 (156)	ISO 4401- AE-08-4-A

■ Power Amplifiers

Valve Model Number	Power Amplifier
ELDFG-01-※-3C2/3C40-XY-10	AMN-L-01-1-10
ELDFG-01-※-3C2P-XY-10	AMN-L-01-3-2P-10
ELDFG-03-※-3C2/3C40-XY-10	AMB-EL-03-1-10
ELDFG-03-※-3C2P-XY-10	AMB-EL-03-2P-1-10
ELDFHG-04-280-3C2/3C40-XY-※※-10	AMB-EL-04-10
ELDFHG-04-280-3C2P-XY-※※-10	AMB-EL-04-2P-10
ELDFHG-06-350-3C2/3C40-XY-※※-10	AMB-EL-06-10
ELDFHG-06-350-3C2P-XY-※※-10	AMB-EL-06-2P-10
ELDFHG-06-500-3C2/3C40-XY-※※-10	AMB-EL-06-10
ELDFHG-06-500-3C2P-XY-※※-10	AMB-EL-06-2P-10

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