

Product News

NO.24
01E

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Two Stage Type Directional and Flow Control Valves ELDFHG-04/06

Notice of Model Change

The proportional solenoid directional/flow control valves have recently undergone a model change to a 20-design by changing the pilot valve and the differential transformer (LVDT) for spool position detection.

■ Major Changes

External dimensions (overall length) of [ELDFHG-04] have been reduced.

■ Mounting Interchangeability

Interchangeable; the dimensions of the cable outlet of the ELDFHG-04 have been changed. For details, see No. 2 Dimensions.

■ Model Number Designation

The design number is updated to 20. Model number designation remains unchanged.

ELDFHG	- 04	- 280	- 3C2P	- XY	- E	T	-20
Series Number	Valve Size	Rated Flow L/min Valve Press. Diff. 1MPa (4-Way Valve)	Spool Type	Direction of Flow	Pilot Connection	Drain Connection	Design Number
ELDFHG: High Response (Two Stage) Type Proportional Electro-Hydraulic Directional and Flow Control Valves (Sub-Plate Mounting)	04	280:280	3C2: Normal Overlap 3C40: A,B,T Connection 3C2P: Zero Lap	XY: Meter-in Meter-out	None: Internal Pilot E: External Pilot	None: External Drain T: Internal Drain	20
	06	350:350 500:500					

■ Specifications

The following specifications have been changed (other specifications remain unchanged).

Category		Old		New	
		04	06	04	06
Step Response	0→100%	13 ms	350: 15 ms 500: 18 ms	14 ms	350: 14 ms 500: 17 ms
Frequency Response	(±25%amplitude) (-90°phase delay)	46 Hz	350: 44 Hz 500: 39 Hz	42 Hz	350: 43 Hz 500: 38 Hz
Water - Proofness		IP64 equivalent		IP65 equivalent	

■ Applicable Power Amplifiers

Remain unchanged.

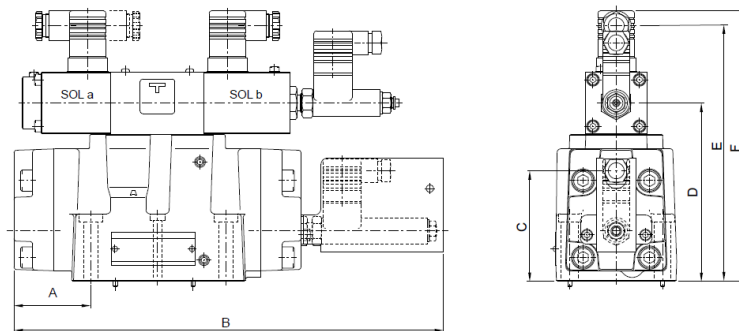
■ Timing of Release

Upon depletion of current stock

■ Dimensions

The following external dimensions have been changed (dimensions other than those listed below remain unchanged).

Model Number		A	B	C	D	E	F
Old	ELDFHG-04-※-※-※-※-※-10	77	341	82	136	194	206
New	ELDFHG-04-※-※-※-※-※-20	58	323	83.4	134.5	192	204
Old	ELDFHG-06-※-※-※-※-※-10	55	350: 371 500: 375	96	162	220	232
New	ELDFHG-06-※-※-※-※-※-20	55(same)	350: 371(same) 500: 375(same)	97.4	160.5	218	230



■ Details

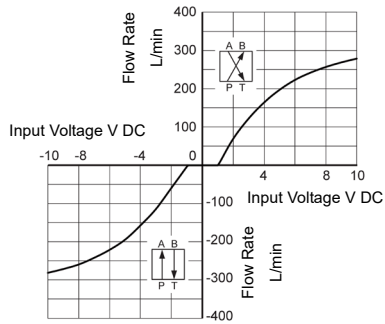
For details [specifications and external dimensions] of the new 20 design, please refer to the external dimensions drawings to be published soon.

Model Number	External Dimensions Drawing Number
ELDFHG-04-※-※-※-※-※-20	634-VA331116-4
ELDFHG-06-※-※-※-※-※-20	635-VA331117-2

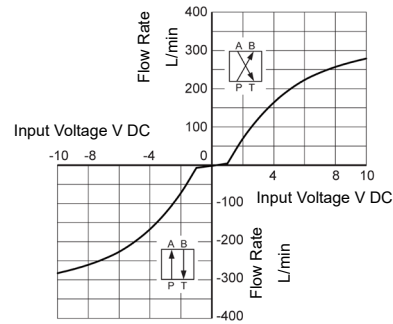
■ Input Voltage vs. Flow Rate

〈Terms〉 Valve Press. Diff. : 1 MPa Viscosity : 30 mm²/s

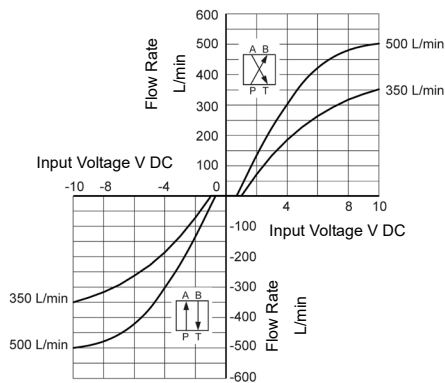
ELDFHG-04-※-3C2/3C40



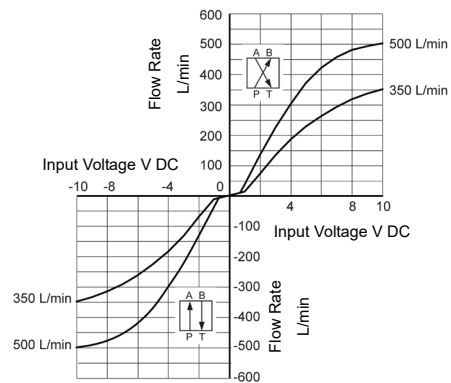
ELDFHG-04-※-3C2P



ELDFHG-06-※-3C2/3C40



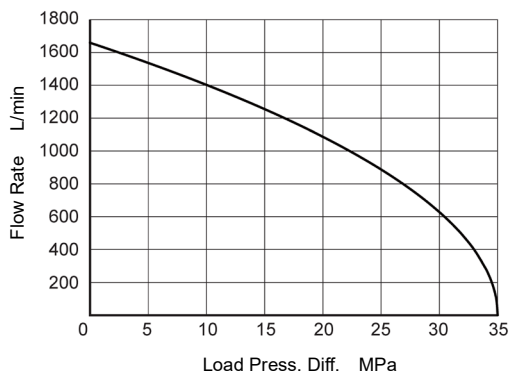
ELDFHG-06-※-3C2P



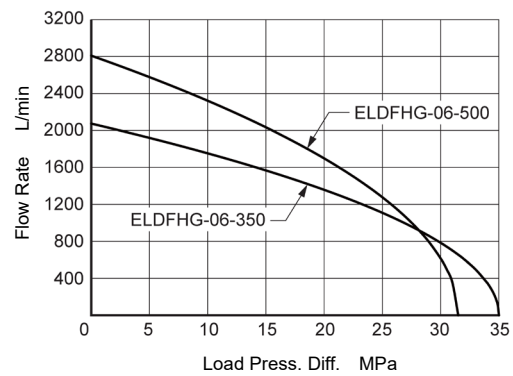
■ Load Flow Characteristics

〈Terms〉 Viscosity : 30 mm²/s

ELDFHG-04



ELDFHG-06

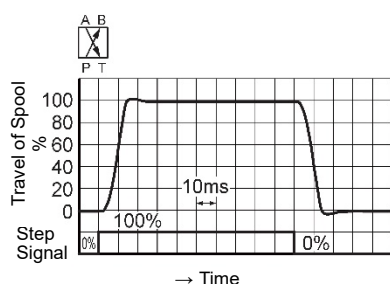


■ Step Response (Example)

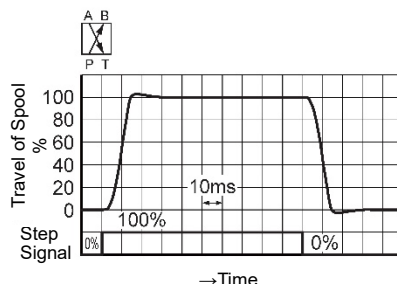
〈Terms〉 ● Hydraulic Circuit : Port A/B Closed ● Supply Pressure : 14MPa

● Input Signal : 0 ⇔ 100% ● Viscosity : 30 mm²/s

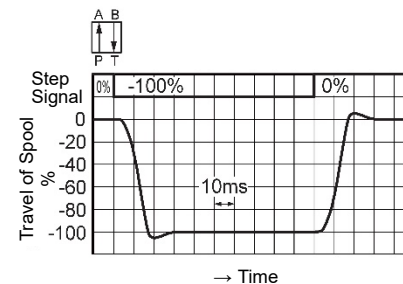
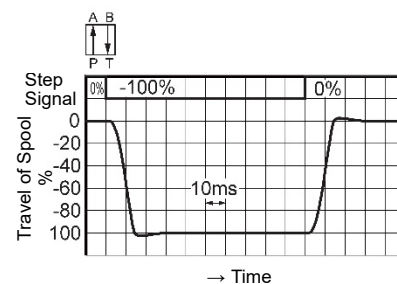
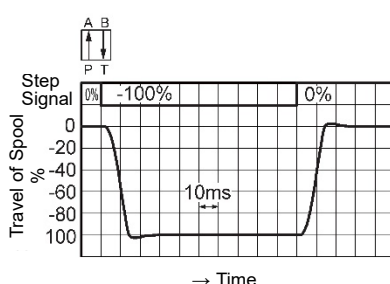
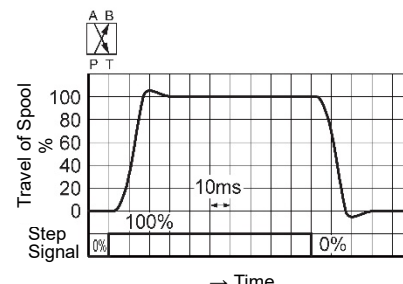
ELDFHG-04



ELDFHG-06-350



ELDFHG-06-500

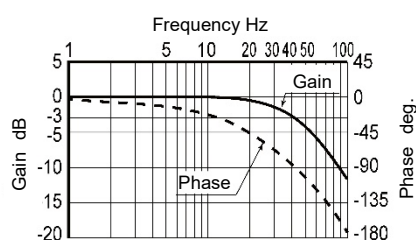


■ Frequency Response (Example)

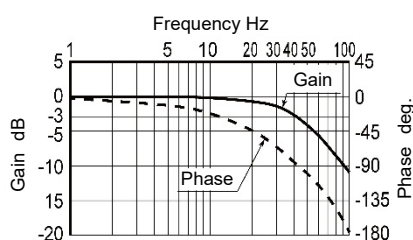
〈Terms〉 ● Hydraulic Circuit : Port A/B Closed ● Supply Pressure : 14MPa ● Input Signal : 0±25%

● Viscosity : 30 mm²/s

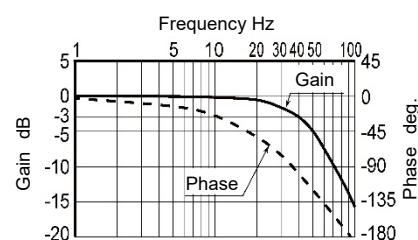
ELDFHG-04



ELDFHG-06-350



ELDFHG-06-500



★ The step response and frequency response characteristics are measured for the valve alone.

The characteristics therefore vary depending on the respective circuit used.