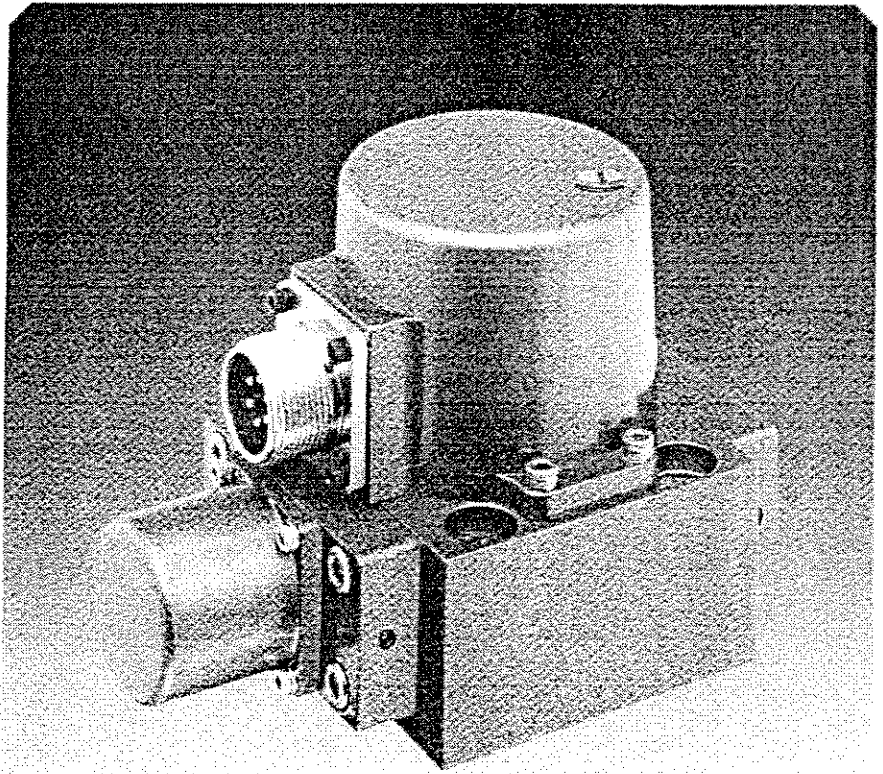
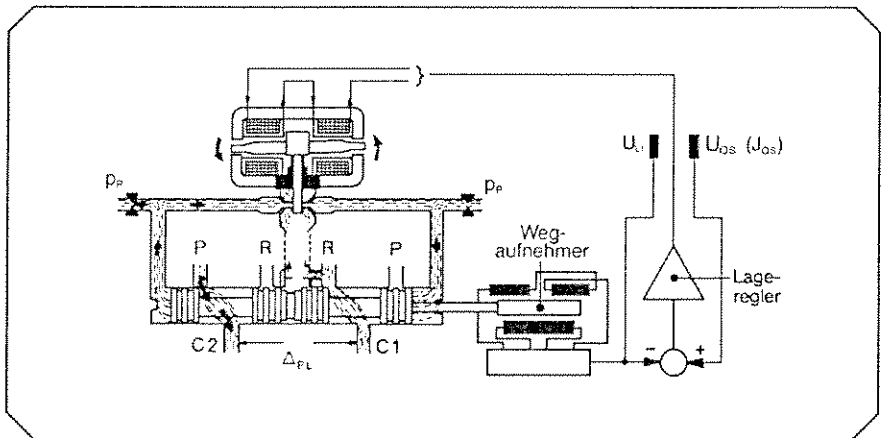


## Electrical Feedback Servovalve with Integral Electronics

Series D769

Rated Flows 3.8 to 63 l/min ( $\Delta p = 70$  bar)  
 Rated Pressure to 315 bar

Standard and High Response



## Technical Data

### Rated Pressure

Standard	15-210 bar
High Pressure	315 bar

**Back Pressure** valid to 210 bar

### Rated Flow availability at 70 bar (1000 psi)

Standard	3.8, 9.5, 19, 38, 63 l/min $\pm$ 10%
High Response	3.8, 9.5, 19, 38, l/min $\pm$ 10%

**Threshold\*** < 0.1%

**Hysteresis\*** < 0.5%

**Null Bias\*** < 1.0%

### Null Shift

with temperature change 55°C < 1.0%

with change in supply pressure between 80 - 110% < max. 1.0%

\* Valves at 3000 psi system

**Operating Temperature** -20°C to +80°C

### Null Leakage\*

First Stage and Second Stage < 1.5 to 2.3 l/min dependent on null condition

**Pilot Stage Flow** 1 l/min

### Operating Fluid

Mineral based hydraulic fluid per DIN 51524  
Viscosity range 15 - 100 mm<sup>2</sup>/s cSt  
Cleanliness level NAS class 4

### Seal Material

VITON  
others available

### System Filtration

Supply filter without bypass

### Null Adjust

Flow out port C<sub>1</sub> when null adjust potentiometer turned clockwise

### Weight

1.1 kg

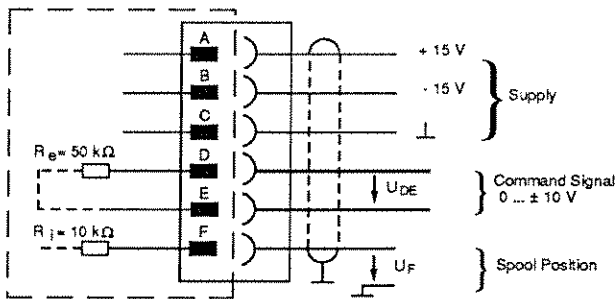
## Electrical Specification

Supply Voltage  $\pm$  15 Vdc;  $\pm$  3%

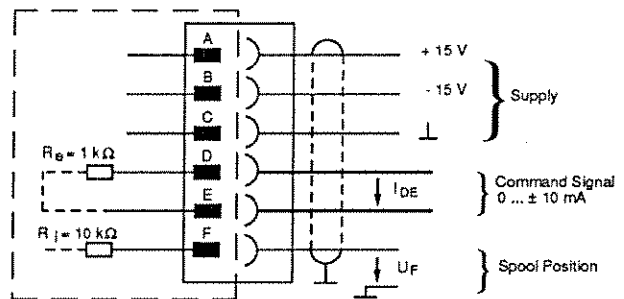
Current Consumption 200 mA

## Electrical Connection

### Valve with Voltage Command



### Valve with Current Command



### Polarity

(Input Signal)

Spool position is proportional to the input signal ( $U_{DE}$ ) +10V at Pin D results in 100% spool stroke (P  $\rightarrow$  C<sub>1</sub>)

(Output Signal)

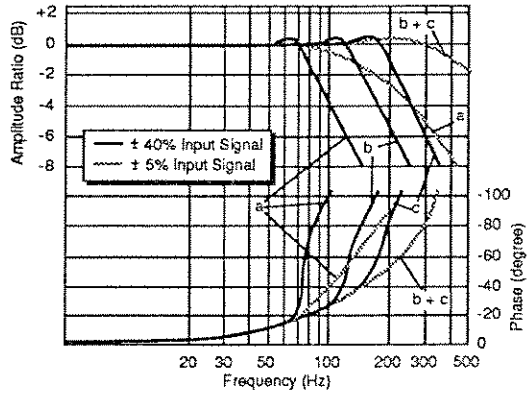
Positive  $\Delta U_{DE}$  (or  $\Delta I_{DE}$ ) results in a negative  $\Delta U_F$  (spool position)

### Polarity

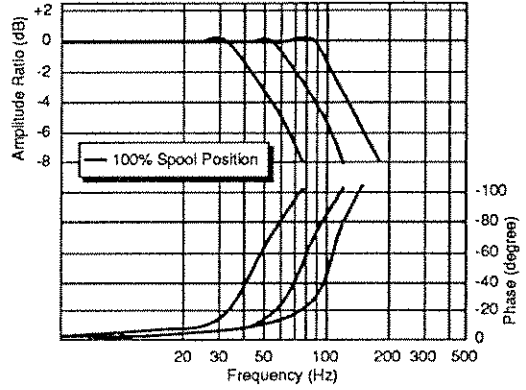
Spool position is proportional to the input current  $I_{DE}$   
 $I_{DE} = +10$  mA results in flow out port C<sub>1</sub>

Pilot supply must be present before energizing the power supply

## Typical Frequency Response of the Standard Valve at 3000 psi Supply

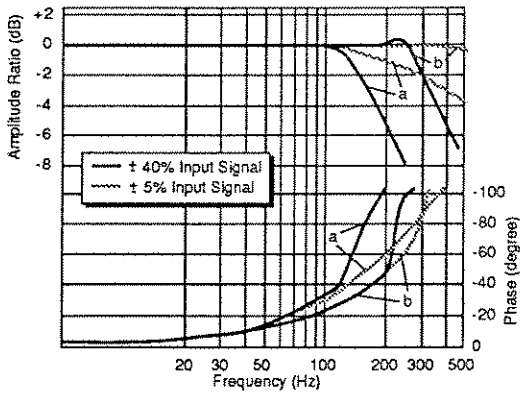


a = Model D769-406  
 b = Model D769-100, 103  
 c = Model D769-101, 102

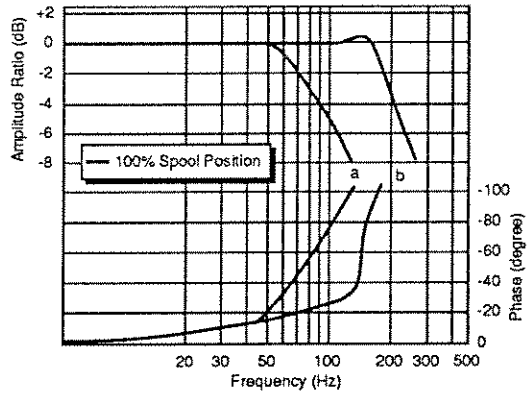


a = Model D769-406  
 b = Model D769-100, 103  
 c = Model D769-101, 102

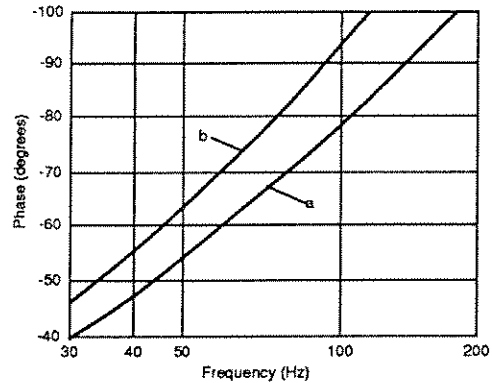
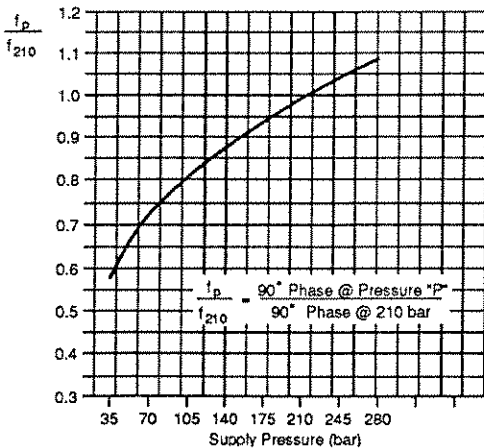
## Typical Frequency Response of High Response Valves at 3000 psi Supply



a = Model D769-233  
 b = Model D769-230, 231, 232



a = Model D769-233  
 b = Model D769-230, 231, 232



a = 15 mm<sup>2</sup>/s (cSt)  
 b = 100 mm<sup>2</sup>/s (cSt)



# Ordering Information

Modell-Nummer

Typbezeichnung

D769

- ...

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Input Command	
-	Voltage
H	Current

Model Number
Number established at Factory. Contains all specifications.

Manufacturer I.D.
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SO	Standard
HO	High Response

Rated Flow	Flow at 1000 psi Valve Drop
04	3.8 l/min
10	9.5 l/min
19	19 l/min
38	38 l/min
63	63 l/min

Maximum Supply Pressure			
F	210 bar	K	350 bar
J	315 bar		

Null Condition	
O	Axis Linear other null cuts available

Pilot Supply Pressure	
A	internal 210 bar 3000 psi
C	external 210 bar 3000 psi
E	internal 315 bar 4500 psi
G	external 315 bar 4500 psi
L	external 350 bar 5000 psi

Seal Material	
V	VITON others available

Electrical Connector	
O	MS-3102 E-145-6 P  others available

Input Signal	
00	Standard Voltage ± 10 Volt
01	Current Input ±10 mA others available

## Standard Valves Model Numbers with voltage input

Rated Flow bei ΔP = 70 bar	Spool Stroke	Operating Pressure 210 bar (3000 psi)		Operating Pressure 315 bar (4500 psi)	
		Pilot Supply		Pilot Supply	
(l/min. +/-10%)	(mm)	internal	external	internal	external
		SO..F0000VA	SO..F0000VC	SO..J0000VE	SO..J0000VG
3,8	0,42	D769-100	D769-150	D769-600	D769-650
9,5	0,21	D769-101	D769-151	D769-601	D769-651
19	0,21	D769-102	D769-152	D769-602	D769-652
38	0,42	D769-103	D769-153	D769-603	D769-653
63	1,0	D769-406	D769-456	D769-506	D769-556

## High Response Valves Model Numbers with voltage input

Rated Flow bei ΔP = 70 bar	Spool Stroke	Operating Pressure 210 bar (3000 psi)		Operating Pressure 315 bar (4500 psi)	
		Pilot Supply		Pilot Supply	
(l/min. +/-10%)	(mm)	internal	external	internal	external
		HO..F0000VA	HO..F0000VC	HO..J0000VE	HO..J0000VG
3,8	0,25	D769-230	D769-250	D769-630	D769-750
9,5	0,25	D769-231	D769-251	D769-631	D769-651
19	0,28	D769-232	D769-252	D769-632	D769-752
38	0,60	D769-233	D769-253	D769-633	D769-753