FluidHaus

Servo Valve, Flapper Nozzle Series: VSS10H

A B P T

0-280 Bar (0-4000 PSI) 0-80

0-80lpm (21gpm) at 70 bar (1015psi) drop

Features

- High Static precision and dynamic response up to 35hz
- For high dynamic or high position accuracy applications.
- Standard NG10/D05 mounting pattern
- Reliable long life operation
- Manual override operation
- Mechanical null adjustment
- Flapper Nozzle design
- Easy to replace protection filter.
- Fifth supply port available to provide independent pressure to pilot stage.
- Maximum rated pressure to 280 bar (4000psi)
- Nominal flow rating of 10, 20, 40, 60 and 80lpm

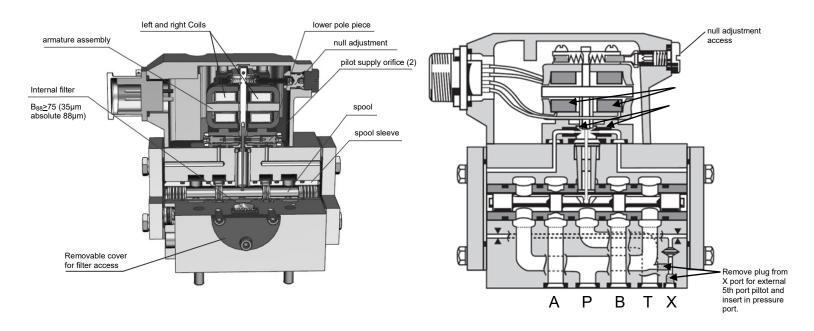


Ordering Details

V	Valve
S	Subplate Mount
S	Valve Type: Servo
10H-	Mounting Size: 10H = NG10 (D05) 2-stage
C-	Spool Configuration: $C = \sqrt{\sum_{P \mid T} A \mid B \mid P \mid T}$
40-	Spool Flow ————————————————————————————————————
100	Command Signal: 100 = +/-100mA
4P-	Electrical Connector = 4P = 4-Pin round connector according to 654-MS3106F14S-2S
1	Series

Example Part Number: VSS10H-C-40-1004P-1

Construction



Technical Data

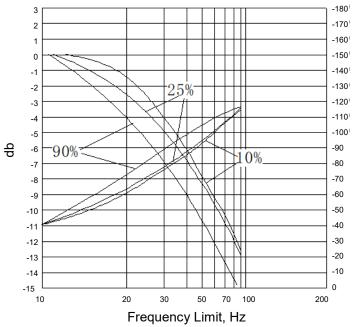
Mechanical Data			Valve Size (lpm)					
Description	Units	10	20	40	60	80		
Nominal Supply Pressure range	Bar	2-210 (280 Max.)						
Nominal Rated Supply Working Pressure, Ps		210 (280 Max.)						
Rated Flow at 70bar pressure drop, (Q=actual flow, Q _N =rated flow, P=actual pressure drop, P _N =rated pressure drop) $Q = Q_N \sqrt{\frac{\Delta P}{\Delta P_N}}$		10	20	40	60	80		
Filtration requirement		β ₁₀ >75 (10μ absolute)						
Mounting direction		Any						
Vibration, 3 Axis	g	30 (5Hz ~ 2KHz)						
Rated Current, In	mA	100						
Hysteresis	%	<u>≤</u> 5						
Threshold	%	<u>≤</u> 1						
Linearity	%	≤7.5						
Symmetry	%	≤ 10						
Pressure Gain, %Ps/1% In	%	> 30						
Internal Leakage, at 210bar		≤3.5						
Null Bias		≤+/-3						
Center position spool overlap		<u><</u> +/-2.5						
Null shift with supply pressure (80-110% Ps)		≤ +/-4						
Null shift with return pressure of (0-20% Ps)		≤+/-4						
Frequency Response at amplitude ratio –3db, +/-10% opening		≥17						
Frequency Response at phase lag of –90°, +/-10% opening		≥35						
Working Temperature		-30 to +95						
Net Weight		<u><2.3</u>						

Electrical Data

Description		7	17	33	50	65		
Resistance per coil at 20°C		28						
Rated Current: parallel coils		100						
Rated Current: series coils		50						
Coil Inductance, series coils		0.8						
Coil Inductance, individual coil		0.2						
Coil Inductance, parallel coils		02						

Frequency Response Limits, Bode plot

Frequency limit tested at +/-10%, +/-25% and +/-90% spool movement (Input Current)



Test condition:

- supply pressure 210bar (3045psi)
- fluid temperature 40°C (104°F)
- fluid viscosity 32mm2/s (1.26in2/s)

Phase shift (degrees)

Dimensional Data

