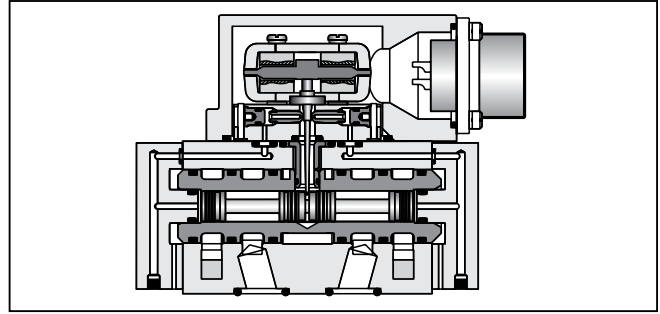
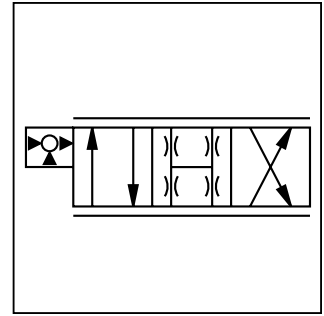


**General Description**

Series SE2N is a two stage, 4-way, flapper and nozzle style servovalve. The SE2N has a narrow body that is a popular size for steam turbine control applications. This valve uses a high performance spool and sleeve design.

A special jewel feedback design enhances durability and prevents ball glitch problems, which can occur in other types of servovalves. This valve is rated for 210 Bar (3000 PSI) service.



**C Features**

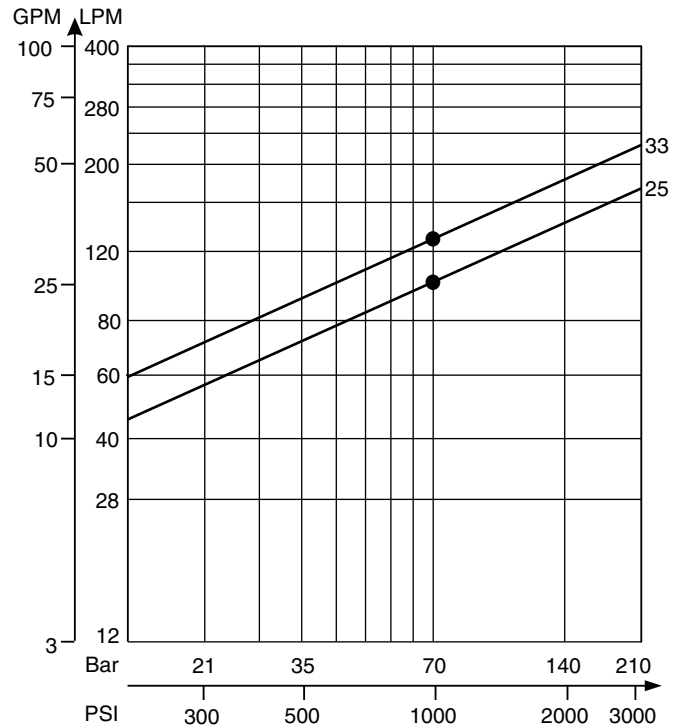
- Lapped spool and sleeve
- Jewel feedback ball for durability
- Aluminum body
- Medium and High performance
- Steam turbine pattern 34.93 mm (1.375 in.) port circle

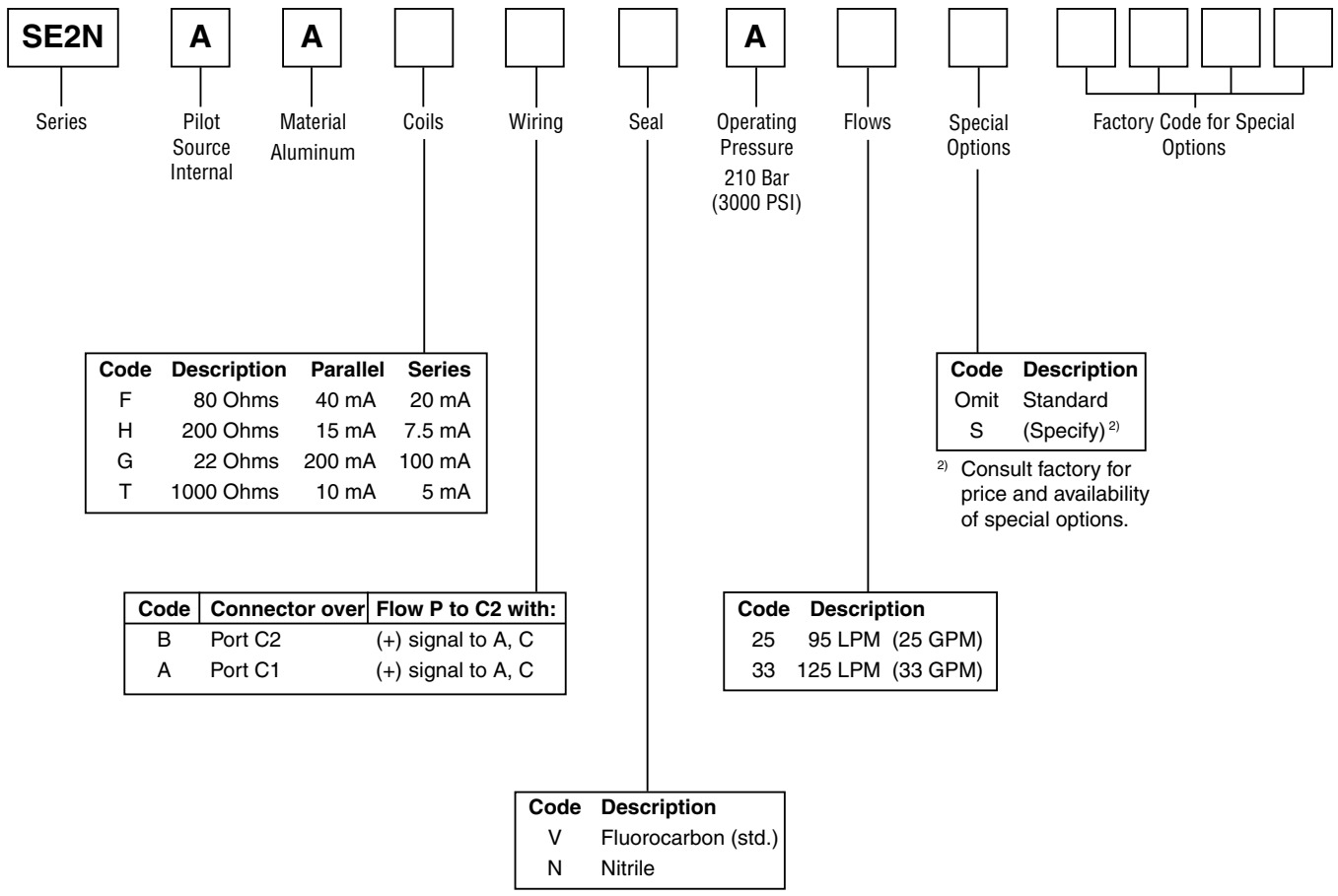
**Specifications**

<b>Flow Rating ±10%</b> @ 70 Bar (1000 PSI)	95, 125 LPM (25, 33 GPM)
<b>Supply Pressure</b>	10 – 210 Bar (145 – 3000 PSI)
<b>Tank Port Pressure</b>	210 Bar (3000 PSI) Max. < 10 Bar (145 PSI) for best performance
<b>Null Leakage Flow</b> per 70 Bar (1000 PSI)	2.4 LPM (0.6 GPM)
<b>Pilot Flow</b> @ 210 Bar (3000 PSI)	0.4 LPM (0.1 GPM)
<b>Input Command</b>	±40 mA std.
<b>Frequency Response</b> @ 90° phase shift	> 50 Hz (See Performance Curves)
<b>Non-Linearity</b>	≤ 10%
<b>Hysteresis</b>	≤ 3%
<b>Threshold</b>	≤ 0.5%
<b>Null Shift</b> with temperature with pressure	≤ 2% per 55°C (100°F) ≤ 2% per 70 Bar (1000 PSI)
<b>Pressure Gain</b> change in pressure per 1% change in input command	60% typical
<b>Step Response</b>	10 – 100%, < 30 ms
<b>Fluid</b>	Petroleum based Mineral Oil, 10 – 110 cSt at 38°C (100°F)
<b>Fluid Cleanliness</b>	ISO 4406 15/12 or better
<b>Operating Temperature</b>	-30°C to +130°C (-4°F to +266°F)
<b>Protection Class</b>	NEMA 4, IP65

**Flow vs. Pressure Drop**

at 100% command  
Flow Path: P→C1→C2→R

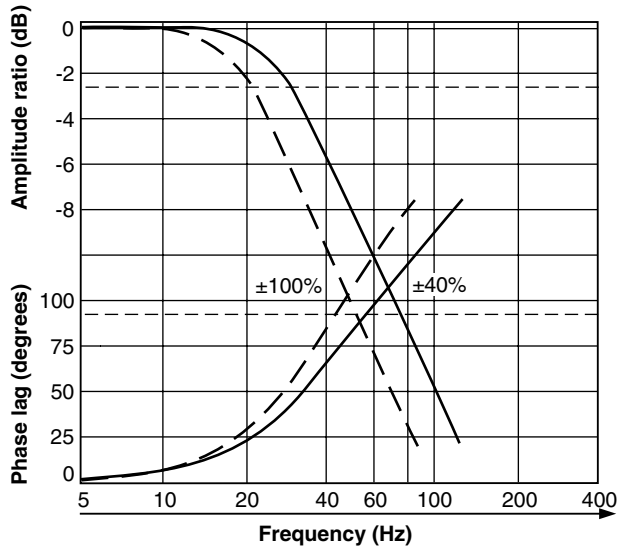




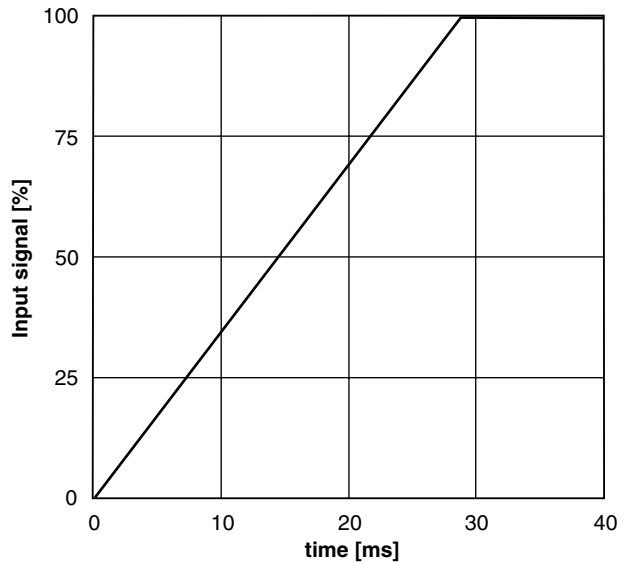
**Weight:** 1.1 kg (2.4 lbs.)  
**Cable with mating connector:** EHC154S  
**Mating connector:** MS3106E-14S-2S  
**Bolt kit:** 4 of M8 x 70 mm, or 4 of 5/16-18 x 2.75"  
**Flushing valve:** Consult factory  
**U.S. subplate:** AS73SPS8S (SAE #8 side ports)  
**Metric subplate:** AS73SPS8M (M18 x 1.5 ISO 6149 side ports)  
**Electronics:** BD101, 23-7030, BD90, or BD95

**Performance Curves**

**Frequency Response at 210 Bar (3000 PSI)**  
**Standard Response**  
**SE2N – 95 LPM (25 GPM)**

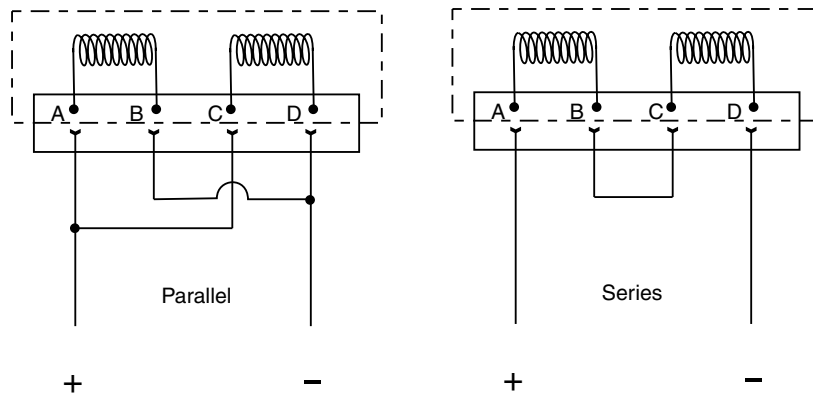


**Step Response at 210 Bar (3000 PSI)**  
**Standard Response**  
**SE2N – 95 LPM (25 GPM)**



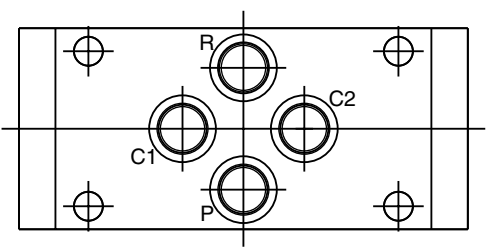
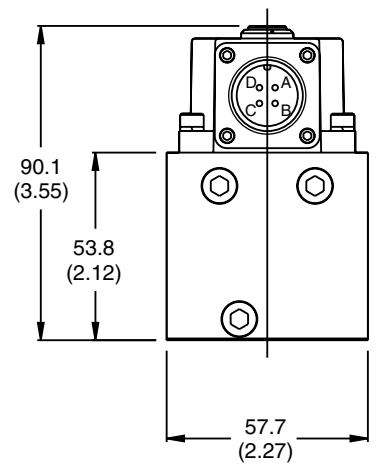
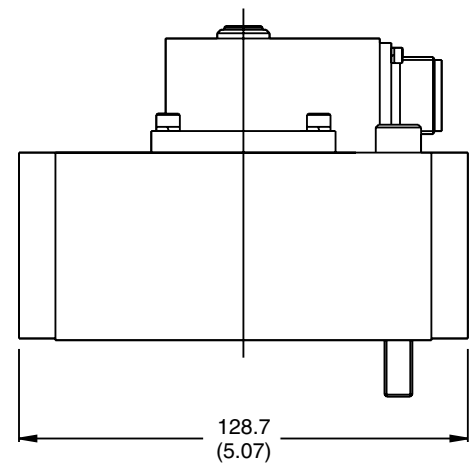
**Installation Wiring Options**

This servovalve has two coils. When connecting the valve to a drive amplifier, the user's external wiring may put the coils either in parallel or in series as needed. Refer to the illustrations below and to the mounting pattern for this valve to insure proper control phasing.



Polarity shown connects flow from P to C2 port.

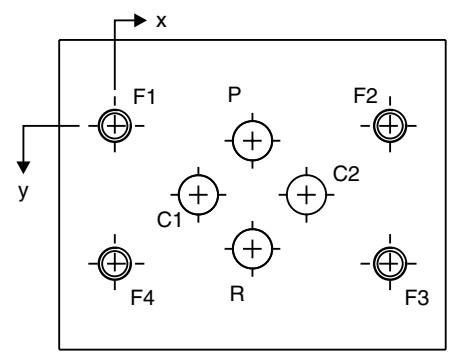
Inch equivalents for millimeter dimensions are shown in (\*\*)



1. Suggested mounting bolts M8 x 70 mm or 5/16-18 x 2.75" long high tensile steel, socket-head cap screws.
2. The 4-way electrical connector mates with MS3106E-14S-2S or equivalent. Is available at 180° to position shown (advise desired position at time of order).
3. Base O-Rings: 14.6 I/D x 2.4 section
4. Null adjust requires 2.5 hexagon key. Flow out of C2 will increase with clockwise rotation of key.

**Mounting Surface**

1. The recommended full-thread depth is 22 mm (0.866 in.).
2. Surface roughness Ra < 0.8 μm [N6], as specified in ISO 468 and ISO 1302.
3. Surface flatness: 0.025 mm (0.001 in.) as specified in ISO 1101.



Metric Dimensions (mm)				(± 0.1 mm)				
Axis	P	C1	R	C2	F1	F2	F3	F4
		Ø 12.7 max	Ø 12.7 max	Ø 12.7 max	Ø 12.7 max	M10	M10	M10
x	44.5	27.0	44.5	61.9	0	88.9	88.9	0
y	4.8	22.3	39.7	22.3	0	0	44.5	44.5

U.S. Dimensions (inches)				(± 0.004 in.)				
Axis	P	C1	R	C2	F1	F2	F3	F4
		Ø 0.5 max	Ø 0.5 max	Ø 0.5 max	Ø 0.5 max	3/8 - 16	3/8 - 16	3/8 - 16
x	1.750	1.063	1.750	2.437	0	3.500	3.500	0
y	0.189	0.876	1.563	0.876	0	0	1.750	1.750

SE2N.indd, ddp

