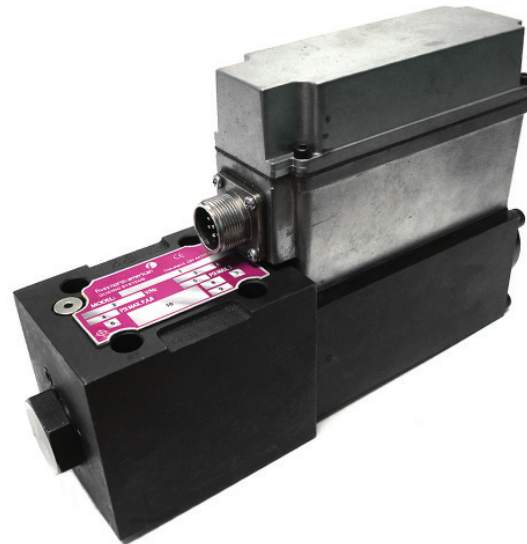


H0930/H0931 Servo Valve

- On-board electronic drive amplifier
- Direct operated valve, no pilot stage
- Spool position feedback
- Drive enable feature
- D05 mounting pattern
- Four position spool
- High frequency response
- 4500 psi (315 bar) supply pressure capability
- Operates on 24 Vdc



The H0930/H0931 is a high response servo valve with an on-board drive amplifier that is directly controlled by the Fives North American family of controllers. The H0930/H0931 incorporates the use of on-board drive electronics along with an LVDT for continuous feedback monitoring of the spool position. The four position spool (see figures 1 and 2) eliminates the need for a separate blocking valve in most applications, while one can still be used where necessary.

The high frequency response and zero lap spool, along with low hysteresis and excellent repeatability, results in improved

performance and accuracy for guiding applications. Each valve is factory preset, tested and does not require any field adjustment. The H0930/H0931 offers two spool configurations for flows ranging from 11 LPM to 83 LPM (3 to 22 gpm), reducing the need for multiple spares.

Being a direct driven valve eliminates the need for separate pilot pressure or drain piping, and allows for easy installation on any standard NFPA D05/ISO 05 pattern manifold.

H0930/H0931 Servo Valve Hydraulic Schematics

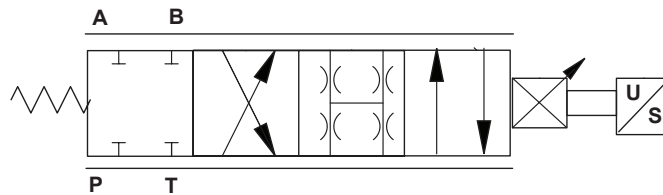


Figure 1: H0930 Servo Valve
with fourth spool position
all ports blocked

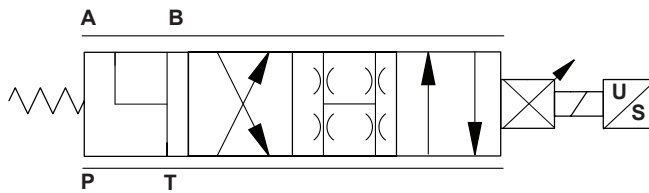


Figure 2: H0931 Servo Valve
with fourth spool position A & B
ports to T

H0931 Servo Valve with Counterbalance Valve

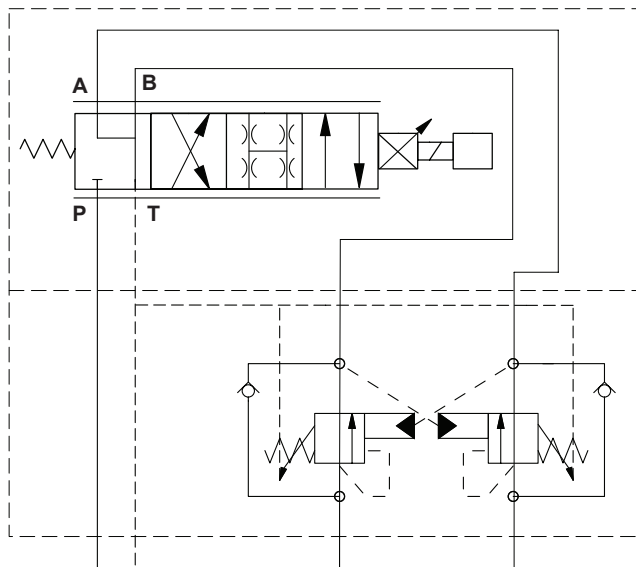


Figure 3: H0931 Servo Valve with H0915-02-2025
Counterbalance Valve

The H0931 servo valve is identical to the H0930 except that the fourth spool position is an A and B to T configuration (see figures 1 and 2). The H0931 can be used in conjunction with a counterbalance valve in applications where it is absolutely necessary to ensure that there is no cylinder movement when the system is in manual.

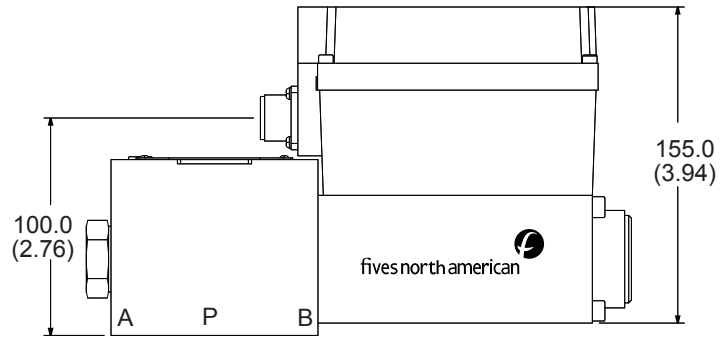
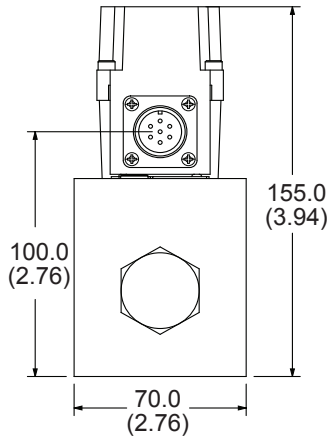
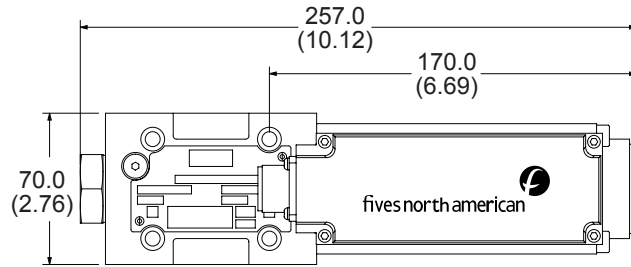
The counterbalance valve is a mechanical means of securing the cylinder position to prevent a static load from causing drifting. There are no solenoids or relays required to operate the counterbalance valve, resulting in a simpler installation and minimal required maintenance.

Note: The H0930 valve cannot be used with the H0915-02-2025 counterbalance valve.

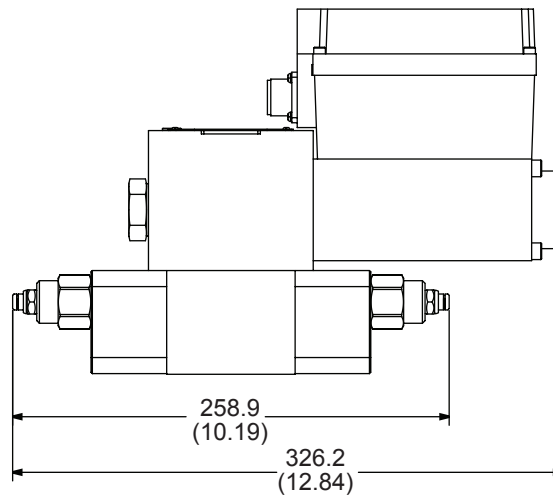
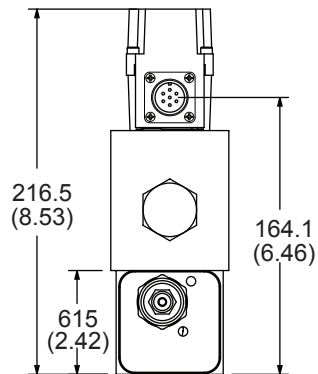
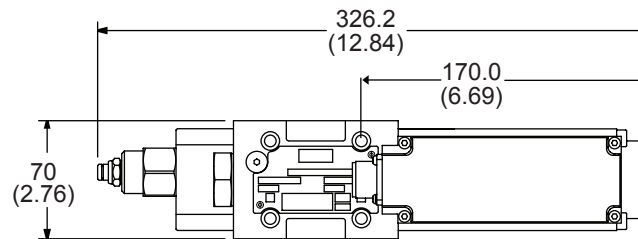
Dimensions

Millimeters (in)

H0930/H0931 Servo Valve



H0931 Servo Valve with Counterbalance Valve



SPECIFICATIONS

Interface: NFPA D05, CETOP 5, NG 10

Flow Rating at $\Delta P = 35$ bar (500 PSI) per metering edge:
 83 LPM (22 GPM) - H093X-2004 valve
 30 LPM (8 GPM) - H093X-2003 valve

Frequency Response: > 45 Hz (-3 dB at 5% signal)

Step Response: < 25 ms at 100% Signal

Power Consumption: 60 VA Max

Max Operating Pressure:

Port P, A, B 315 Bar (4500 psi)
 Port T 35 Bar (500 psi)

Min. Tank Line Pressure: 1.4 Bar (20 psi)

Typical Spool Overlap: Zero Overlap

Weight: 7.7 kg (17.0 lbs)

Internal Leakage: .5 cu in/min per land at 1000 psi

Hysteresis: < 0.5%

Repeatability: < 0.5%

Viscosity Range: 17 to 65 cSt (75 to 300 SSU)

Fluids: Mineral Base Hydraulic Fluid

Operating Temp. Range (Ambient): 0 to 60°C (32 to 140°F)

Fluid Cleanliness Level:

ISO Class 15/12/10 (for longer life)
 ISO Class 16/14/11 (for normal operation)

Voltage Supply:

24 VDC (21 VDC Min., 30 VDC Max.) Peak Current 4 amps

Command Signals:

± 10 VDC at 100 K Ohm Impedance
 ± 20 mA at 499 Ohm Impedance

Protection Class: IP 65, NEMA 4 (Factory Sealed)

Part Ordering Information

H 0 9 3 X - 2 0 0 X / X

Valve Type

0 - H0930 servo valve
 1 - H0931 servo valve*

*When using the H0915-02-2025 counterbalance valve, always use the H0931 servo valve.

Servo Input

Blank - ± 10 V signal
 /C - ± 20 mA signal

Spool Configuration

4 - up to 83 LPM (22 GPM)
 3 - up to 30 LPM (8 GPM)

Valve Accessories

Part Number	Description
H0150-01-2051	Cable Connector
H4523-2080	Cable assembly with connector for H093X-200X servo valve 4.5 meters (15 feet) long
H0915-02-2025	Counterbalance Valve

Fives North American Combustion, Inc. Guiding Systems

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