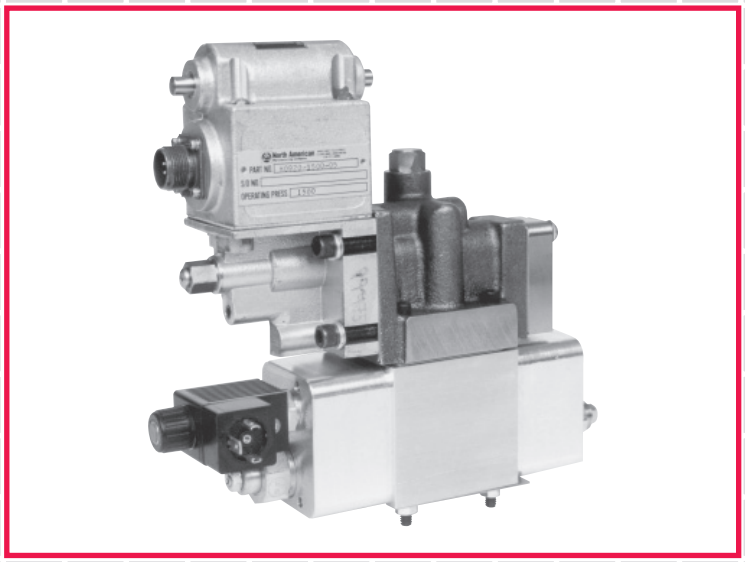
fives north american

BULLETIN 10006 Bul. 2.00

GUIDING SYSTEMS

April 1999

H0920 Servo Valve



- **D05 mounting pattern servo valve for customer mounting**
- **3000 psi maximum operating pressure**
- **Separate blocking valve isolates cylinder from servo valve**
- **Requires ISO Code 4406 cleanliness level 16/13 hydraulic fluid**
- **Servo valve directly driven by the H6600 series controllers**
- **Servo valve contains manual overrides**

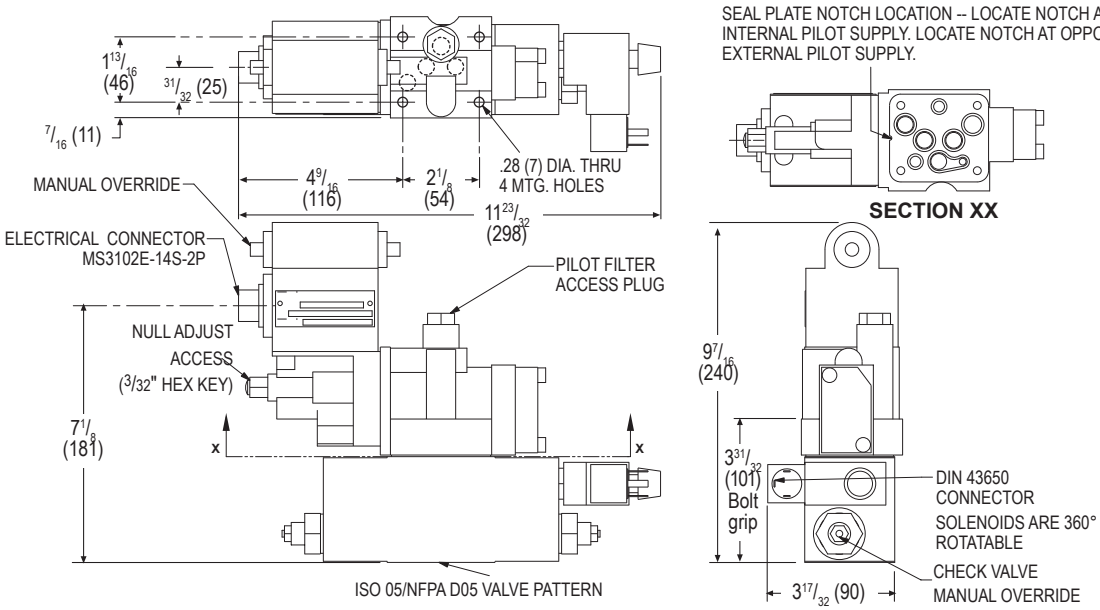
Fives North American offers a complete line of H0920 electro-hydraulic servo valve systems for strip guiding applications in the metals industry. These process line applications include entry-end guiding, intermediate guiding and exit-end guiding.

The H0920 Servo Valve is directly driven by Fives North American's family of electronic controllers eliminating the need for a separate drive card and control loop to tune. Since the valve that North American offers is a servo valve, it does not have a large dead band, therefore is does not require additional electronics to compensate for the dead band. The H0920 Servo Valve also offers a filtration level equivalent to the majority of competitive proportional valves and contains a field serviceable pilot filter. The H0920 system can operate up to 3000 psi allowing for the use of reduced cylinder bore diameters.

The servo valve and blocking valve have a NFPA D05/ ISO 05 mounting pattern that will mount directly to a standard manifold. The servo valve is internally piloted and drained, allowing for ease of installation. A complete analysis of the system should be done prior to replacing a directional valve with a servo valve.

DIMENSIONS

inches (mm)



DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

SPECIFICATIONS

Servo Valve①

Operating Fluid	Petroleum based hydraulic fluid①
Supply Filtration (non-bypassing)	25 micron absolute (ISO code 4406 cleanliness level 16/13)
Operating Pressure	
Pressure port	3000 psi max., 200 psi min.
Load ports	3000 psi max. (207 bar)
Return port	200 psi max. (14 bar)
Internal Leakage (207 bar)	0.4 gpm (1.5 lpm) at 3000 psi
Hysterisis	5% max.
Symmetry	10% max.
Linearity	7% max.
Pressure Gain	30% supply min. at 2% signal
Null Shift	
Temperature change	50-150 F (10-65 C) 5% max.
Supply press. change	500 psi (35 bar) 3% max.
Return press. change	200 psi (14 bar) 2% max.
Rated Current	±125 mA (other coil options available upon request)②
Electrical Connection	MS3102E-14S-2P H4523-88-1 (10' cable)
Valve Mounting Pattern	NFPA T3.5.1 R2 D05 (2.5 to 20 gpm models)
O-Ring Compound	Viton

Blocking Valve③ (P/N H0916-30-005)

Pressure Rating	5000 psi (345 bar) max.
Rated Flow	20 gpm (76 lpm) at 150 psid (10 bar)
Leakage	1 drop per minute (0.004 $in.^3$/min) 100 SUS viscosity
O-Ring Compound	Buna-N
Power Consumption	12 watts
Operating Voltage	
Coil P/N H0915-31-002	120 V ac ±20%, 50-60 Hz
Coil P/N H0915-31-003	240 V ac ±20%, 50-60 Hz
	AC coils incorporate integral rectifiers with surge protection.
Temperature Rise above Ambient	
At rated power	93 F (34 C)
At 2x rated power	170 F (77 C)
Coil Insulation	Class H
Connector	Hirschmann (DIN 43650) H0960-11-002 (9' cable assembly)

Notes:

① Contact Fives North American for special fluids.
② Contact Fives North American for coil options.
③ Test performed with petroleum based hydraulic fluid, viscosity grade 32 at 100 F.

H0920-XX00-XX

Supply Operating Pressure
15: 200 - 1500 psi (14 - 103 bar)
30: 1550 - 3000 psi (107 - 207 bar)

gpm rating at 1000 psid (70 bar)
02: 2.5 gpm (9.5 lpm)
05: 5.0 gpm (19 lpm)
10: 10 gpm (38 lpm)
15: 15 gpm (56 lpm)
20: 20 gpm (76 lpm)

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