Hydraulic Service Manifolds

Flexible single or multi-station hydraulic switching and conditioning.

Hydraulic Service Manifolds are used to isolate the pump from the test stand, while providing accumulation and filtering. **Separate filtered circuits are available for valve pilot and hydrostatic bearing pressures** when needed. **Multiple stations** are also available, each with **switchable low and high pressure solenoids**, and pressure gauges for monitoring the output pressures. With the application of accumulators, relief valves, port control valves and check valves, a critically designed manifold block assures a clean and constant hydraulic supply for varied applications.

Bia West manifolds have full flow **10 micron filtration for the main circuit**, and where applicable, **3 micron full flow filtration for the servo valve pilot and hydrostatic bearing circuits**. Fluid filtration protects components downstream from impurities in the hydraulic oil.

All manifolds have a **slow pressure ramp when moving from OFF to LOW to HIGH pressure**. This removes pressure pulses and protects your specimen and personnel from sudden load or displacement spikes. 24v solenoid operation means that the manifolds are fully compatible with Bia West, and other manufacturer's controllers.

Manifolds can be configured with a **range of accumulator options** to smooth noise in the hydraulic supply and ensure a constant pressure at the servo valve during transient events. Our bladder style accumulators provide the fastest response time possible and provide a perfect seal at the gas/oil interface, reducing the need for maintenance.

Bia West Hydraulic Service Manifolds set the standard for hydraulic service manifolds with **advanced design, quality components, and variety of options**.

The floor mounted 21 Series HSM offers one channel of switched control providing off/low/high with ramping between modes. Manufactured in 30, 60, 120, 250, 300 and 600 GPM standard sizes. The 21 Series can be supplied with auxiliary outputs in parallel or an output header manifold with multiple sets of parallel ports.

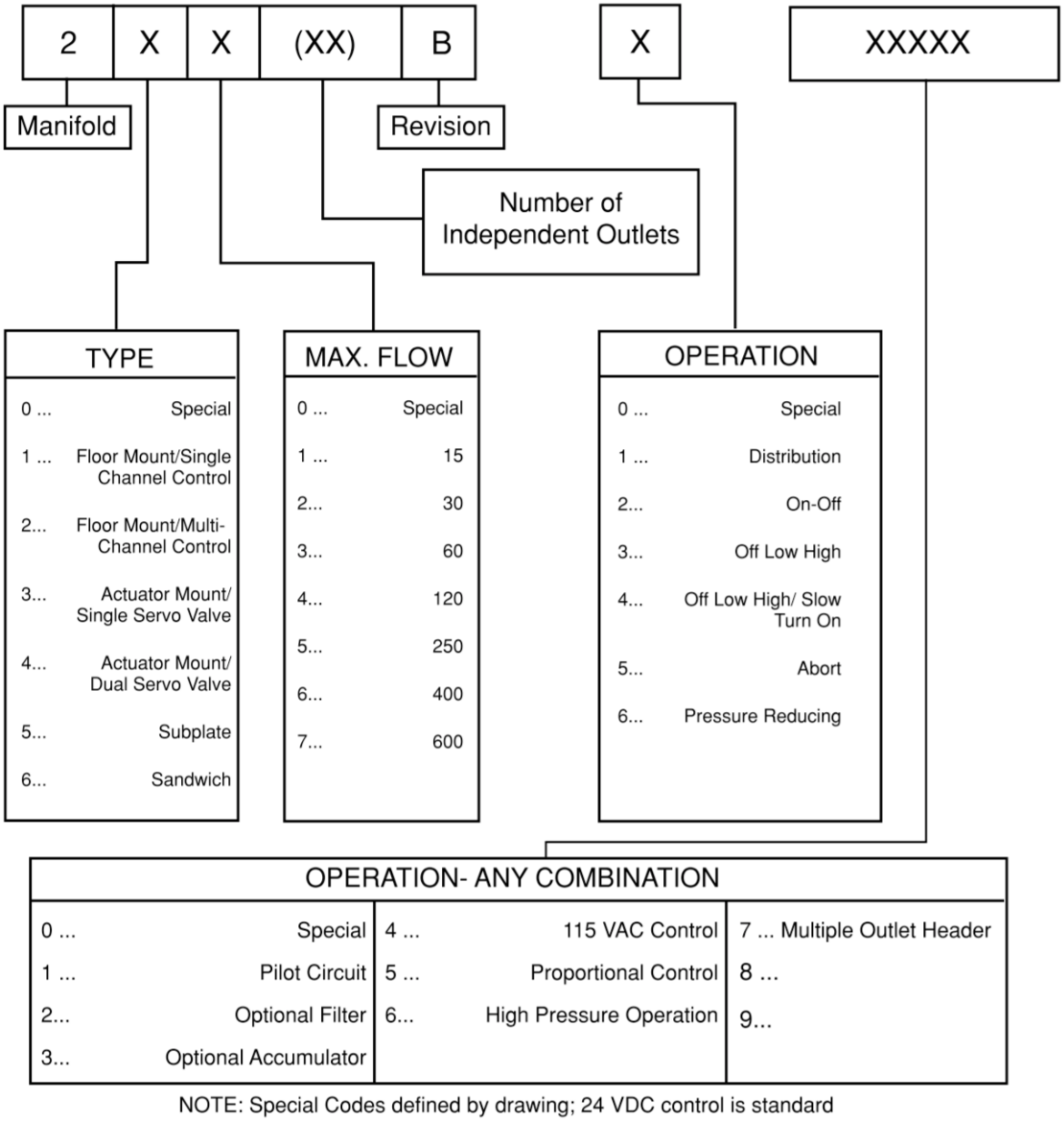
The 22 Series HSM can be configured with **up to 4 independently switched stations**.

Special high flow manifolds are available on request, along with manifolds with special accumulation requirements.

Features

- Bladder Style Accumulators. Pressure and return accumulators positioned close to the servo-valve improve the high-frequency response characteristics of the actuator. Bladder style accumulators have a fast response time, and zero leakage between the gas and the oil, greatly minimizing the time between service.
- Pilot pressure. Auxiliary pilot pressure ports direct un-switched hydraulic pressure to servo valve pilots and hydrostatic bearings (when applicable).
- Pressure control. Two internal 24v pressure control solenoid valves allow you to turn hydraulic pressure from OFF to LOW to HIGH using the system control electronics.
- Smooth pressure transitions. The effects of rapid removal or application of high pressure are minimized with smooth, controlled transitions between off, low, and high pressure modes.
- Enhanced safety. Predictable pressure transitions and rapid dump hydraulic pressure unloading in the event of an abnormal condition reduce unexpected actuator movement and protect the specimen, test system and personnel.
- Pressure control for up to four independent stations. The 22 Series HSM provides complete and independent control of hydraulic pressure for up to 4 individual stations while operating from a single hydraulic source.
- Full Flow 10 Micron Filtration. Filtration at the manifold prevents the passage of dirt particles that can enter the hydraulic system when adding hydraulic fixtures or opening hydraulic lines. 3 micron filtration is standard for the pilot pressure circuit.

Ordering Information



NOTE: Special Codes defined by drawing; 24 VDC control is standard

- Other sizes available on request