

The Ease of Ethernet in a Pneumatic Fieldbus Manifold... Imagine The Possibilities!



General

Ethernet, used throughout the world to network millions of PCs, has now evolved into a viable industrial network. Ethernet is an open architecture high-level communication network that meets the demands of today's industrial applications requiring high-speed (10/100 Mbit/s), high-throughput and flexibility. Various application layers for this protocol include TCP/IP, EtherNet/IP, and Modbus TCP/IP. Additionally, Ethernet technology can integrate an on-board Web Server, which can make the node readily accessible to any standard Web browser for configuration, testing and even retrieval of technical documentation. E-mail capability allows the manifold to send e-mails that are triggered from specific events ranging from diagnostic information to automatic Preventive Maintenance scheduling. Numatics has integrated this technology into the G2-2 series of fieldbus manifolds, which combines the functionality of a scalable modular I/O system with a modular pneumatic valve manifold.

Application

Ideal for applications requiring Ethernet I/O and pneumatic valve manifolds.

As a slave on an Ethernet/IP network, the unit controls up to 164 Outputs / 96 Inputs (32 Output points are reserved for valve solenoid coils) from a single node. The manifold can also be subdivided and distributed to other valve series without the need for additional nodes. Making it ideal for various applications.

The G2-2 manifold platform is completely modular and scalable, featuring plug-in valves, sub-bases and I/O modules. The various plug-in discrete I/O modules allow external sensor devices to be read and external loads to be controlled via industry standard 12mm connectors or Sub-D connectors. Output drive currents are rated at 0.5A nominal with higher currents available.

Time proven lapped spool and sleeve valve design allows compact size, 5/2 and 5/3, valves with flows of up to 1.2Cv (1200 L/min).

Advantages

- Eliminates the need to have several networks on an application. The same high-level network can also be used for field devices.
- Eliminates costs of wiring output points to pneumatic valve manifolds and I/O
- Per point diagnostics decrease troubleshooting time, commissioning costs and machine down-time
- Extreme I/O distribution capability decreases overall system costs by decreasing the number of necessary Ethernet nodes
- Modular system allows maximum flexibility for applications
- Distribution capabilities span across different valve series
- Web server capability allows imbedded documentation and easy set-up and e-mail support

