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Liquid Processing - Food Industry

Isys Micro Plug-in Valve Island

Bulletin 0600-B84



ENGINEERING YOUR SUCCESS.

Isys Micro Series

Features and Benefits

Process Control Cabinets

Liquid process automation within the Food Industry utilizes pneumatic valves to control process valves located remotely around the facility. Pneumatic valve manifolds provide a safe method of operating equipment in hygienically demanding environments. Facilities may utilize a centralized or a decentralized control cabinet solution to best fit their control needs. Either solution can incorporate hard wired or fieldbus technology.



Centralized Control Solution

Utilizes a single large cabinet to house the control architecture, digital and analog inputs and outputs, and pneumatic valve manifolds.

Hard wired systems manage all inputs and outputs directly from the controller and require individual terminations for each point.

Fieldbus systems use a network to communicate back to the controller, allowing each device to manage the inputs and outputs directly.



The Isys Micro series redefines flexibility for pneumatic users. Plug-in valve design combines all of the solenoid wiring to a single location on the manifold. This simplifies both hard wired and fieldbus systems. (Fieldbus system shown above.)

Decentralized Control Solution

Integrates multiple small cabinets to house the control architecture, digital and analog input and outputs, and pneumatic valve manifolds. These small structures are located close to applications on the production floor.

Hard wired systems manage all inputs and outputs directly from the controller, using terminal strips and conduit runs to reach the remote locations.

Fieldbus systems use a single network cable to communicate back to the controller, allowing each device to manage the inputs and outputs directly.



Isys Micro Series

Features and Benefits

Broad Range of Electrical Platforms

Plug-in valve design combines solenoid wiring which **reduces control system costs** by eliminating connectors, terminal strips, and junction boxes.



The **25 Pin, D-Sub electrical connector** offers the **most cost effective way** to wire up machines with discrete outputs (located on the PLC) to 24 solenoids. Because the connector exits in the same direction as the fittings, overall manifold **length and height are reduced**.



The **Moduflex Fieldbus** option offers a simple, **low cost connection** to control networks with DeviceNet, Profibus, CANopen, and Interbus, with 16 solenoids and no additional inputs or outputs. AS-i is also available, and can be configured with 8 solenoids and 8 inputs.



Isysnet Fieldbus option provides a **complete offering** for decentralized machine control networks on Ethernet/IP, DeviceNet, ControlNet, and Profibus, where the inputs and outputs are directly attached to the valve manifold.



Bus Extension capability allows users to **extend the network** from the Valve Driver Module up to 3 additional times, utilizing more of the 256 input and 256 output capacity of the communication module, and greatly reducing cost.



Rockwell Automation RSLogix5000™ users can take advantage of **Preferred Connectivity** by using the preloaded Isysnet device profiles, ensuring a **quick and easy PLC configuration**.



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Isys Micro Series

Features and Benefits

Simple Yet Flexible Valve Design

Back to back valve mounting offers 4 valves on a 42mm wide manifold, delivering a **10.5mm wide valve solution** with **higher flow, providing better response time with reduced cost.**

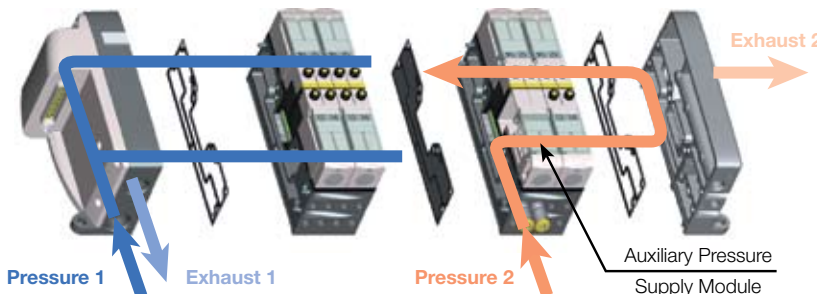
Only 6 total valve part numbers makes selecting valves easy and concise.



Side ported manifold design



Bottom ported manifold design



Multiple pressure and exhaust zones can be configured on a single manifold, allowing users to **control many complex operations** with fewer components.



Valves are equipped with **flush non-locking overrides** as standard, are user configurable to **locking override** during machine programming & debug, and user configurable again to **no override** for final installation. **Captive mounting screws, integrated labels, and protective cover plates** further simplify and enhance valve installation.

LED's are integrated into every manifold, reducing size and cost while making it easy to troubleshoot.



M7 Plug installed here for External Pilot

M7 Plug installed here for Internal Pilot

Internal or external pilot configurations incorporated into end plate, allowing for easy configuration or conversion in the field. No changes necessary to valve or base.

Designed to meet the strict demands of **IP65, dust and water protection.**

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